

**The Interaction Economy
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INTRODUCTION

Throughout history, successive economic eras have evolved as new social and scientific forces stimulated new ways of doing business which, in turn, require new competencies. The era now rapidly emerging and its new ways of doing business demand new kinds of skills in an ancient arena: human interaction.

Generally, the history of human economics is considered to have gone through several phases, each one shorter than those that preceded it. The **Agrarian Economy** began with the dawn of civilization and was characterized by the vast majority of people working the land for their own food and selling or bartering the crops that exceeded what they and their family needed to live. The Agrarian Economy prevailed until the Industrial Revolution in the late 18th and early 19th centuries. The shift from the economy being based on manual labor to being dominated by industry and machine manufacture began in Britain with the introduction of steam power and powered machinery. The development of all-metal machine tools in the first two decades of the 19th century enabled the manufacture of more production machines for manufacturing in other industries, and the **Manufacturing Economy** began.

In the Agrarian Economy, competition was based on quality and accessibility—for the most part, goods were bought locally, and the farmer, craftsman, or shopkeeper who could offer the best combination of cost and quality had what we would call today a competitive edge. With the advent of manufacturing, the ground of competition shifted—products were more standard and commoditized and were no longer made by a single local craftsman. Thus, those who manufactured and sold these products began to emphasize features and services to differentiate themselves competitively.

With standardization, manufacturing organizations began to deal with large-scale coordinated action unprecedented in business history. To do so, companies turned to the one model that was proven effective for large-scale activity: the military. Interactions in the Manufacturing Economy featured formal hierarchy, rigid roles, and highly controlled information. If you worked in manufacturing, you knew what was necessary to do your job and no more. You were expected to focus on your job and not interfere with other people. Horizontal interactions were, by and large, discouraged.

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The acceleration of scientific progress in the 20th century and the pressure to bring scientific breakthroughs to bear on military, civilian, and business issues brought about the development of the third great economic revolution, the **Information Economy**. World War II was won in large part due to the Allies' ability to gather the best minds in the world and to mobilize their thinking in service of intangibles such as freedom, scientific progress, and democracy. This burst of concentrated scientific thinking led to the realization that pooling information resources led to outcomes that came faster and were of a higher quality than those the same scientists working alone could create.

As early as 1959, Peter Drucker coined the term “knowledge worker” to describe someone who works primarily with information or who develops and uses knowledge in the workplace. The work environment Drucker was observing was being seminally affected by the work of W. Edwards Deming, Genichi Taguchi, and others who invented principles and methods to support organizational assessment, learning, and improvement. Those principles and methods connected customers, employees, and management in new ways to eliminate waste and add value via their shared knowledge. “Waste” and “value” became words freighted with new meaning and all aspects of organization began to be scrutinized to see whether they really added value in the eyes of the customer. Layers of supervision were removed to take wasteful cost out of the system. Capital costs were reduced by decreasing investment in traditional collocated office space. A trend toward the “virtual workforce” began and many new experiments in organizational development ensued.

The knowledge revolution was given a catalyzing vocabulary in 1990 with the publication and wide acceptance of Peter Senge's *The Fifth Discipline*. Senge declared that a decisive competitive edge for businesses approaching the 21st century lay in their becoming “learning organizations.” This idea is now widely accepted and the concept of interaction itself has evolved as terms such as “transparency” and “boundaryless” describe environments based on sharing and deploying knowledge in ways that reduce waste and add value.

Along with these developments in organizational theory and practice were parallel developments in technology that would catalyze another major shift in the basis of the economy long before anyone might have expected it. As available information has grown exponentially with the development of the Internet, highly effective and widely used search tools have been developed and all the information on the World Wide Web has become usefully and instantly available in the Information Economy.

In 1609 Francis Bacon said “Knowledge is power; the more one knows the more one can control events,” and this aphorism has been accepted wisdom for 400 years. Bacon could not have anticipated a corollary to his famous dictum, that when there is free and easy access to knowledge, knowledge is no longer the source of power.

Knowledge has become so available that it constitutes a commodity—available at little or no cost to everyone with access to the Internet. Thus effective, rapid access to information is now the entry to competition rather than the competitive edge. Easy access to information has increased physical separation and created networks of relationships that exist with little in-

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person contact. All these Information Economy effects give rise to the fourth great economic shift, what we call the **Interaction Economy**.

THE BASIS OF THE INTERACTION ECONOMY

In the Interaction Economy the differentiating factor is not knowledge, but rather the rate at which we do new and valuable things with that knowledge. *Rate of adjustment* is crucial and is driven by the interaction of three elements: *initiators, partners, and information*. **Initiators** start interactions; they are exploring or are already committed to a strategy for producing value. **Partners** are those with whom the initiators must interact to create economic value. Partners may take the form of customers, associates, employees, superiors, suppliers, and/or allies, that is, anyone who must participate for value to occur. **Information** is timely, relevant knowledge. The quality of the interactions between these elements is the competitive frontier in the Interaction Economy.

The Interaction Economy was foreshadowed over 65 years ago. In the early 1940s a group of brilliant physicists and other scientists were brought together to form the Manhattan Project, the object of which was to design a weapon that used nuclear fission to create a level of explosive power that was unimaginable in World War I. Almost all of the scientists had already been working for several years on the problem, with very little progress. In 1941 they were united under the codirection of General Leslie Groves and Dr. Robert Oppenheimer, and placed under extreme time pressure lest Germany develop the weapon first. These were, for the most part, senior scientists of considerable reputation and in some cases with egos to match. To further complicate matters they were not all in the same place; there were 14 project sites, of which Los Alamos, Berkeley, and Chicago were the main ones. Groves and Oppenheimer had the task of coordinating this widespread and disparate group, and how they did this remains a case study in interaction management.

A parallel project was underway at the Kaiser Wilhelm Institute in Germany under Werner Heisenberg. The German project had personnel who were arguably as brilliant as those in the Manhattan Project, a leader in Heisenberg who was at least Oppenheimer's equal, and the same time pressure, and it took place largely under one roof, yet the Manhattan Project succeeded and the German effort did not. Why? The answer lies in part in a fundamental difference in how the projects were managed. The German project was run along classical scientific lines—scientists worked alone or in small groups, shared their work in colloquia, and went back to work in their separate labs. In the American project free exchange of information, thinking, and speaking across disciplinary boundaries, brainstorming, and creativity were encouraged, particularly by Oppenheimer who, along with Hans Bethe and other senior members of the team, sponsored an environment where ideas could come together and interact. Failure was not only tolerated but encouraged as creative approaches were tried. Learning and rate of adjustment were key values as those failures were turned into discoveries and accelerated execution.

As we all now know, the Manhattan Project won. Prior to the US entry into the war, German and American scientists had access to the same information. The possibility of nuclear fission in uranium was discovered and published in late 1938 by a team of German scientists, and in 1939 Albert Einstein warned President Roosevelt about the dangers of an atomic bomb. The Germans actually launched their nuclear project in September 1939, well before the US even considered this research seriously. The difference in execution was the rate of discovery and problem solving enabled by the ease and quality of the interactions. This kind of interaction environment was spawned by emergency and the fortunate presence of unusual people. The winners in today's economy will not depend on emergency or unusual personnel; they will proactively master creating and leading networks of interaction.

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Interactions have been important in every economic age, but were considered a secondary element rather than a primary source of value creation. Interactions in earlier economic eras were largely hierarchical, stable, and predictable, and learning one's role was more important than learning how to interact between roles. In general, the source of coordination was compliance with the dictates of authority.

The vocabulary of the Interaction Economy shows how much all that has changed. Terms such as "cross-boundary initiatives," "horizontal processes," "supply chains," "value networks," "collaboration," "connectivity," "silos versus systems," and the "matrix organization" all denote the prominence of interactions in developing and executing value creation strategies. The source of coordination now is "mutual interest" because we need far more cooperation than we can garner through compliance. Interaction Economy leaders must learn to evoke, connect with, and orchestrate commitment rather than demand compliance.

In a recent article, Peter Senge (2006) alluded to these issues:

All businesses sit within much larger commercial systems, and it is these systems that must change, not just individual company policies and practices... For me the fundamentals start with a set of deep capacities which few in leadership positions today could claim to have developed: systems intelligence, building partnership across boundaries, and openness of mind, heart, and will.

High-quality interactions do not merely coordinate action, they stimulate innovation. The maxim "All of us is smarter than any of us" has been variously attributed to Walt Disney, Ken Blanchard, Warren Bennis, and others. Regardless of who said it first, there is little doubt of its truth. The real challenge is making the transition from theory to practice: just how do we tap in to the commitment and intelligence of a business community to improve development and execution of strategy? In his 2004 book *The Wisdom of Crowds*, James Surowiecki provides extensive documentation to show that, under the right conditions, groups of people will reliably produce smarter solutions to problems than would be expected from any individual in the group or even from acknowledged experts. In our work at Conversant with organizations in over 35 countries we have found the same to be true: there is a reliable design to high-value interactions. It is this "reliable design" that forms the basis for thriving in the Interaction Economy.

INTERACTIONS: TRANSACTIONAL, TRANSFORMATIONAL, AND TACIT

Two recent studies by the McKinsey Organization asserted that as we have moved farther away from the Manufacturing Economy, and as information has become more easily accessible to all, the source of competitive advantage has indeed shifted. In 1998 studies showed 61% of American workers were in jobs that the authors classified as either "*transactional*" (routine and repetitive) or "*transformational*" (manufacturing). By 2004 this percentage had dropped to 59% and continues to trend downward. The remaining jobs involve what the McKinsey authors call "*tacit*" work, that is work involving complex interactions with others, often across both internal and external organizational boundaries.

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As recently as 1993 Michael Hammer and James Champy, in their book *Reengineering the Corporation*, could credibly promote process improvement as a source of competitive advantage. Shortly after Reengineering became widely adopted, however, it became clear that any advantage gained by process improvement, best practices studies, automation, outsourcing, and so forth were short-lived as rival companies adopted similar improvements and matched their competitors. The rate of information flow turns nearly every improvement into public knowledge and whoever most rapidly turns the knowledge into new value creation wins.

At the same time it has become increasingly apparent that a key source of value creation lies in business activities that have largely been ignored, particularly in the complex interactions that key managers and executives have on an ongoing basis that are central to performing their jobs. By “complex interactions” we mean, first and foremost, conversations—conversations with peers, superiors, subordinates, suppliers, contractors, and customers to name a few of the key examples. These conversations typically require that managers deal with considerable ambiguity and exercise high levels of judgment, with only their knowledge and experience to draw on. According to McKinsey, during the past six years the number of US jobs in which this kind of interaction is a key factor has been growing three times faster than employment in the entire national economy. As business becomes more complex and managers have more information to deal with, this trend can be expected to continue and increase.

As the demand for valuable interactions grows, the companies whose employees are most skilled at these interactions have a considerable competitive advantage. Put another way, unproductive interactions will put companies at an increasingly costly disadvantage.

The point isn't how many tacit interactions occur in a company—what's important is that they ought to add value. This shift toward tacit interactions upends everything we know about organizations. Since the days of Alfred Sloan, corporations have resembled pyramids, with a limited number of tacit employees (managers) on top coordinating a broad span of workers engaged in production and transactional labor. Hierarchical structures and strict performance metrics that tabulate inputs and outputs therefore lie at the heart of most organizations today.

But the rise of the tacit workforce and the decline of the transformational and transactional ones demand new thinking about the organizational structures that could help companies make the best use of this shifting blend of talent. There is no road map to show them how to do so. Over time, innovations and experiments to raise the productivity of tacit employees (for instance, by helping them collaborate more effectively inside and outside their companies) and innovations involving loosely coupled teams will suggest new organizational structures.

The Next Revolution in Interactions
B.C. Johnson, J.M. Manyika, and L.A. Yee
The McKinsey Quarterly, 2005

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Systems theory holds that a subsystem that is in wide use and largely unexamined is a strong candidate for a likely source of waste in a system. By this definition interaction, or what is more commonly called “conversation,” is very likely to be a waste source in most organizations. If we look particularly at what the quote above refers to as “tacit interactions,” (i.e., those complex, ambiguous, judgment-intensive conversations described above), we find them in ever-widening use, increasing as a manager’s seniority or scope of authority increases, and yet for the most part unexamined. In our experience of working with Fortune 100 companies worldwide, it is possible to bring to these conversations a level of analysis and clarity that goes beyond the call for “innovations and experiments” and that lends itself to training and practices that make complex conversations a source of significant added value.

INTERACTIONS THAT ADD VALUE VS. INTERACTIONS THAT CREATE WASTE

We define value as anything that customers and shareholders would be willing to pay for and that employees are willing and able to produce. Waste, then, is any activity that does not meet this criterion, that which does not produce value.

Clearly, the kind of complex interactions that we are discussing here are a key potential source of value. In his book *Moments of Truth*, former SAS CEO Jan Carlzon describes it this way:

Last year, each of our 10 million customers came in contact with approximately five SAS employees, and this contact lasted an average of 15 seconds each time. Thus SAS is “created” 50 million times a year, 15 seconds at a time. These 50 million “moments of truth” are the moments that ultimately determine whether SAS will succeed or fail as a company. They are the moments when we must prove to our customers that SAS is their best alternative.

If we are truly dedicated to orienting our company toward each customer’s individual needs, then we cannot rely on rule books and instructions from distant corporate offices. We have to place responsibility for ideas, decisions, and actions with the people who are SAS during those 15 seconds: ticket agents, flight attendants, baggage handlers, and all the other frontline employees. If they have to go up the organizational chain of command for a decision...then those 15 seconds will elapse without a response, and we will have lost an opportunity to earn a loyal customer.

Carlzon’s strategy clearly worked at SAS, yet he would be the first to admit that it was rife with risks. Every opportunity to create value is also a 15-second opportunity to create waste—to lose a customer forever. What will make the difference between value and waste is the quality of the interaction.

INTERACTION ECONOMY COMPETENCIES AT WORK: A CASE STUDY¹

We have found that leading in the Interaction Economy requires three major competencies:

- Interactive vision: Seeing execution as a network of interactions;

¹ Much of the material for this case study is based on Mickey Connolly and Susan Burnett (2003) *Hewlett-Packard Takes the Waste Out of Leadership*.

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- Interactive timing: Being able to diagnose and respond to interaction opportunities and problems at the right time; and
- Interactive skill: Being able to lead the interaction effectively once you know which interaction to highlight with a given group at a given moment.

Despite almost 60 years as a company that was widely admired for its products, ethics, innovations, and competitive spirit, Hewlett-Packard's erratic performance during the 1990s had begun to erode the company's reputation. HP executives believed that many opportunities for customer and shareholder value had been lost because of poor coordination between the company's more than 60 business units.

In 2001 HP reorganized into four Global Business Units (GBUs) and the company's Board and Executive Council recognized that even with this consolidation, collaboration across the GBUs was going to be critical. A survey of employees at all levels of the company confirmed both the need for and the potential difficulty of what amounted to a major cultural shift. Feedback from the survey spotlighted the need for a different style of leadership, one better suited to driving cross-boundary innovation, efficiency, and rapid change.

One early discovery in the change process was that managers who were most effective in unscripted conversations were also the most effective change leaders. Susan Burnett, HP's Vice President of Workforce Development, became very interested in the notion of conversations as a catalyst for change. Burnett was instrumental in HP partnering with our company Conversant, a Boulder, Colorado, consulting practice focused on how conversations affect the rate and quality of organizational accomplishment. Conversant had worked closely with the Ink Jet Supplies business of HP for some 10 years, gaining familiarity with HP and demonstrating the effectiveness of their approach with HP managers and executives.

In an extensive report on the HP/Conversant project, Greg Merten, then Vice President and General Manager of Supplies Operations for the Ink Jet Supplies business, said:

The way we used to solve problems tended to damage relationships. Turf protection and blame would leave the people involved weakened as a team and in worse shape to solve whatever problem came next. Now, we solve bigger problems faster, and relationships are in better shape after the problem-solving, not worse.

Merten's endorsement and Burnett's investigation led to the co-development by Conversant and HP of a program, *Dynamic Leadership*, that would train HP managers in the three competencies of the Interaction Economy.

Dynamic Leadership and Interactive Vision

The purpose of Dynamic Leadership is to substantially improve the ability of HP managers to accelerate "time-to-value" for HP customers, shareholders, and employees. The method of acceleration is conversational leadership—seeing the quality of interactions as the key to value creation and the creative resolution of differences as critical to time-to-value.

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Participants in Dynamic Leadership were brought together mostly as intact work teams and trained in conversational tools developed by Conversant, including the Conversation Meter™, the Intersection Model™, and a participative decision-making protocol. Teams were asked to bring to the program real work issues that were not proceeding smoothly to completion, required collaboration to accomplish, and fit the agreed-upon definition of value. By applying conversational tools to these problems and in exercises in the program, participants came to see execution and the barriers to execution as issues of interaction.

Dynamic Leadership and Interactive Timing

Timing is one of the most important issues in complex interactions. Timing estimates relationships as they relate to action. (By way of analogy, the action of jumping rope requires you to estimate the relationship among your body, the rope, and the ground.) Well-timed action is highly productive: benefit rises while effort falls. While time may be a constraint in a project, timing is about maximizing opportunities for action.

Timely action is not commonplace because people tend to perceive the world in terms of objects rather than in terms of relationships. We focus on the individual things in front of us, rather than on the relationship between those things. When timing is good, the focus is not on oneself, others, or the circumstances, but rather on the relationships and interactions between these—on how things fit together, on the pathways they form. When the focus is on separate parts, insightful observations are rare, which leads to great effort being expended for small results.

An integral part of the Dynamic Leadership program at HP is an exercise called the “Evening of Value.” Late in the afternoon of the first day of the workshop, participants break into groups and plan a valuable evening together, using tools acquired during the day and guided by the definition of value. The groups then present their plans to each other and align on what to do for the evening. Course leaders observe and take notes about the quality of application of Day One concepts and tools. In the morning of the second day, the “Evening of Value” exercise is thoroughly debriefed and the course leaders provide coaching. Managers report a dramatic shift “from just understanding the concepts to really using them well.”

Two factors focus the Evening of Value exercise on the issue of timing. First, the exercise happens in real time—the small groups have about 45 minutes to plan their proposal for the evening, and then the group as a whole has about the same amount of time to align on the final plan and its execution. Second, the groups usually comprise a range of levels of authority, from independent contributors to senior managers. The training of the day prior to the exercise creates a strong bias toward interaction and conversation rather than authority and deference. This combined with the time constraints of the exercise makes timely interaction key to successfully completing the Evening of Value, a point that is generally made very strongly in the Day Two debrief.

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Dynamic Leadership and Interactive Skill

Conversant’s conversational methodology is rooted in what is termed the Cycle of Value™. The Cycle of Value is composed of eight conversations which, when skillfully managed, provide what we believe is the shortest and most effective route to value creation. These conversations, broken down into three overall areas, are as follows:

ALIGN

- *Intersect* Creating relationship based on mutual interest in a common future
- *Invent* Creating creative conversation, leading to a surplus of possibilities for how to fulfill the common future
- *Invest* Selecting the possibilities with the greatest potential for return on investment (ROI) and allocating resources (time, money, and talent)

ACT

- *Engage* Explaining the thinking behind the plan to those who will execute it
- *Clarify* Clarifying necessary roles and responsibilities
- *Close* Obtaining explicit commitments to achieve important goals

ADJUST

- *Review* Using frequent debriefs of performance to date and glean important learnings
- *Renew* Refocusing and reallocating resources based on what has been learned so far

As the term “cycle” indicates, the eight conversations are held iteratively, maximizing learning and the application of learning to future performance.

At HP, interactive skill was ensured both by the training in the program itself and by an innovative post-program support system. In partnership with the Fort Hill Company, HP and Conversant implemented a rigorous post-course management system using Fort Hill’s *Friday 5s*® management tool. This system required participants to set concrete goals to be accomplished in the eight weeks following the program—these goals included both business results and goals for changes in their interactions at work to be achieved by applying the knowledge gained from the program. The post-course program was implemented through a combination of online reporting and coaching and was also used to assess the impact of the program within HP.

Results of Dynamic Leadership

Measurement and Improvement. Three types of evaluation are used to continuously improve the program, measure its impact, and calculate the return on investment:

- Immediate post-workshop evaluations
- Analysis of follow-through reports
- Three-month post-program financial impact analysis

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Immediate Post-Workshop Evaluations. At the conclusion of the two-day workshop, participants complete a 17-point evaluation of both the content and workshop leaders. The minimum performance standard for leaders to continue leading workshops is an average score of 4.0 on a 5-point scale. The *Dynamic Leadership* program staff reviews the evaluations; leaders with ratings less than 4.0 are coached, while leaders with average ratings of 4.5 or above are interviewed for best practices, which are shared widely. Leader support processes and course materials are periodically revised based on these evaluations. As a result of these continuous improvement efforts, the workshop evaluation scores have been strongly positive, with 91% of over 8,000 participants worldwide rating the program as “worth the time away from the office,” 94% stating “it will increase my effectiveness on the job,” 89% agreeing they would recommend the program to their peers, and 89% saying it will help them produce rapid time-to-value.

Analysis of Follow-Through Reports. Because all of the participants’ goals are entered into a database, Fort Hill is able to evaluate the distribution of planned post-course objectives. As intended, more than three-fourths of all goals focus on improved alignment, more effective conversation, and accelerated decision making, all of which are leadership objectives key to HP’s intent for the program. Thirty-five percent of participants reported better alignment, 23% more authentic conversations, and 22% more rapid decision making. Other objectives achieved included better issue resolution (13%), and better learning and adjustment (5%). Post-program goals demonstrate that the participants plan to apply the intended lessons in ways that will have practical benefit for HP. More importantly, participants’ biweekly *Friday5s* reports indicate that they translate their learning experience into actions that benefit their teams and the company as a whole.

In Week 9 following the workshop, participants are asked what they found most useful from the program. More than half of all comments mention the conversation tools and the closely related concepts of shared and intersecting purpose.

Three-Month Post-Program Financial Impact Analysis. To quantify the impact of the program, HP worked with Fort Hill to design an analysis to occur after each participant had sufficient on-the-job experience with *Dynamic Leadership* tools. Three months after attending the workshop, participants are asked to indicate how frequently (if at all) they have used the *Dynamic Leadership* tools. They are also asked to describe, if possible, a single specific example in which this created value for HP and to provide details of quantifiable benefits, such as hours saved, new revenue generated, or costs avoided. In evaluating the program’s impact, only specific examples for which there is good documentation are included.

The value generated by the *Dynamic Leadership* program is calculated by multiplying the median value of reported events by the number of reported uses of program material, then discounting (by 75%) for positive reporting bias. The median rather than the average reported value is used to avoid undue influence of a small number of very high-value instances. The ROI is calculated by comparing the value generated to the full cost of delivering the program, which includes the per-hour cost of the attendees’ time. The results have overwhelmingly supported the value of HP’s investment with an ROI calculated at 15 to 1. Perhaps most

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remarkably, these results were achieved in the midst of one of the largest reorganizations in corporate history, the HP-Compaq merger.

CONCLUSION: THE INTERACTION ECONOMY

In the agrarian age competitive advantage was gained by quality of goods and by minimizing the distance to be traveled between producer and consumer. In the manufacturing age competitive advantage was a function of commoditization, economies of scale, and process efficiencies. In the information age the company with the best information—leading-edge technologies, first-to-market advantage, and competitive intelligence—was likely to hold an advantage.

In the Interaction Economy, according to the 2005 McKinsey study:

Jobs requiring the most complex type of interactions—those requiring employees to analyze information, grapple with ambiguity, and solve problems—make up the fastest growing segment (of employment in the U.S.)...70% of all U.S. jobs created since 1998 require judgment and experience...Advantages that companies gain by raising the productivity of their most valuable workers may well be more enduring [than technology or process improvement], for their rivals will find these improvements much harder to copy.

These “complex type of interactions” are usually required when situations are both complex and rife with ambiguity. By their nature they are unlikely to be valuably resolved by one person or, as Surowiecki has shown, even by a group of experts. This type of situation is most valuably resolved when individuals are both empowered to think and act in the interest of the system as a whole (as in the SAS example) and are brought together to mobilize a variety of views of both the situation and the system to produce solutions that are not likely to be produced from one or a few views.

If the growth of the Interaction sector in business is (as it is likely to be) a reflection of the increasing prevalence of ambiguous, nonformulaic situations today, then it should be noted that the choice facing today’s business organizations is not “interaction or knowledge” but rather “valuable interaction or wasteful interaction.” The type of situation we are discussing here is usually urgent and will not tolerate being left to resolve itself. For that reason, complex interactions will have to happen and the companies that build and sustain competitive advantage will be those whose leaders can sponsor an environment in which high-value interaction is the norm.

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