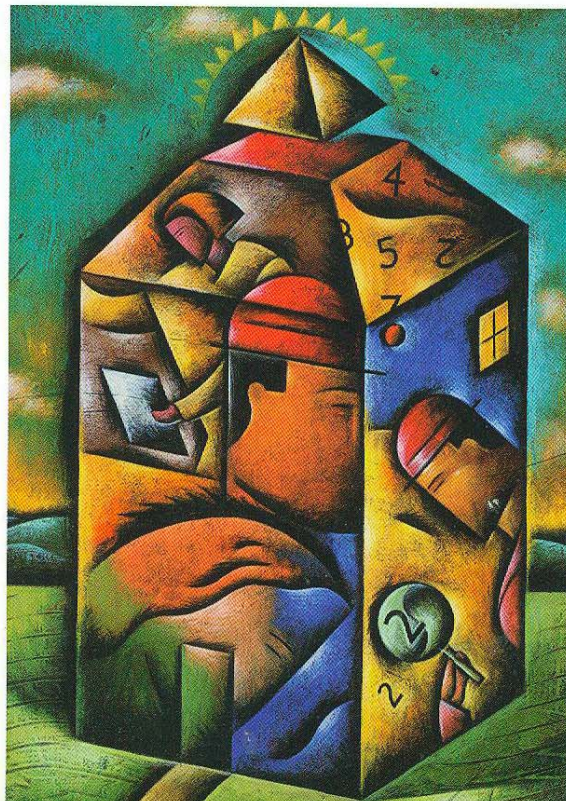


A BusinessWeek Book

"Captures the vision and power of the creative breakthroughs people can achieve when they truly collaborate...
exceedingly entertaining and well-written."

— Eric Hahn, CTO, Netscape Communications

Mastering the Art of Creative Collaboration



**Robert
Hargrove**

Creative Collaboration:

An Idea
Whose Time
Has Come

Imagine the possibility of achieving dreams and aspirations that were never attainable to you on an individual basis.

Imagine thinking and working together with others who see and respond differently to the world than you do but whom you find endlessly curious, intriguing, and compelling.

Imagine participating in deeply spirited, generative conversations that result in new shared understandings as well as in creating something that never existed before.

Imagine what it would be like to be part of a community of commitment where learning and questions were more important than knowing and certainty.

To Step Into the Future,
We Must Shift Our Weight
to the Opposite Foot

Extraordinary individuals have always been looked at as the source of significant and lasting human achievement. To step into the future, you have to shift your weight to the opposite foot and see things from a new perspective. In the future, the source of human achievement will not be extraordinary individuals, but extraordinary combinations of people—in business, science, politics, and the arts.

An extraordinary combination of people may be comprised of people who are already extraordinary in different professions or disciplines, yet who see an exciting, new possibility and who have the desire to make it a reality, without knowing that they themselves and their occupations may be forever changed by it. Or it might come from ordinary people who discover their own capacity to be extraordinary in the process of collaborating with others who acknowledge their talents and gifts.

To be sure, creative collaboration is an idea that is on everyone lips. In some cases, people are talking about collaboration as what is happening (or needs to). In other cases, it articulates what has been a vague notion of what is missing that will make a difference. Thus, when you mention it, it speaks volumes. What we discovered in speaking to scientists, business people, educators, and others in researching this book was that, if we would merely mention the word “collaboration” once in a conversation, it would, in the course of the ensuing dialogue, be repeated back two, three, or more times.

People would launch into their own personal stories of collaboration with passion and zeal. “Collaboration is an incredibly useful term to describe what’s happening in particle physics,” said Harvard Professor, Peter Galison, winner of the MacArthur Award or “genius award” in science. “Collaboration is the key to reinventing government,” said Senator John McCain of Arizona. And there were more. “Collaboration is big, big, big,” said Bill Gates of Microsoft. “I love the idea of collaborating, whatever that means,” quipped Howard Stern.

It was interesting to note that when people talked of their own experiences of collaboration, however they defined it, they became very inspired, animated, and enlivened. Everyone we talked to in writing this book told us that there is an “aesthetic,” “uplifting,” “alchemical” quality to creative collaboration that allowed them to transcend the mundane aspect of daily affairs. “There were moments of recognition when I saw who I was and what I was magnificently capable of as an individual for the first time,” said one collaborator. Others referred to “when I saw I was part of a living community or system,” and “when I was able to reach up and touch the web.”

What is Creative Collaboration?

It is a proven fact that a flock of birds flying together in a V formation has the lifting power to carry twice the distance of a single bird flying alone.

Whether you are a scientist, elected official, business leader, or artist for that matter, being creative (or generative) means taking something that perhaps you believed would never come to pass, declaring it possible, and then working to make it a reality. It could lead to a new scientific theory, pioneering legislative action, an innovative product, or

even a unique art form. “Collaboration” implies doing something together. It is the desire or need to create or discover something new, while thinking and working with others, that is the distinguishing difference.

The Wright brothers aspired to be first in flight; Watson and Crick searched for the secret of life, Picasso and Braque experimented with a new art form called Cubism. When Jobs and Wozniak collaborated to create the first Apple personal computer in a garage, they joined this list of classic examples. Creative collaboration involves 1) different views and perspectives, 2) shared goals, 3) building new shared understandings, and 4) the creation of new value. It can be applied to reaching goals, solving problems, or resolving seemingly impossible conflicts.

Collaboration is extraordinary combinations of people.

Collaboration is the act (or process) of “shared creation” or discovery. Collaborative people are those who designate a possibility and recognize that their own view or perspective is not enough to make it a reality. They need other views and perspectives. Collaborative people see others not as creatures who force them to compromise who they are, but as colleagues who can help them amplify their talents and skills. In World War II, physicists and scientists who barely understood each other came up with the idea of radar. President Carter brought Begin and Sadat together and came up with the Camp David Accords. Walt Disney spent hundreds of hours in the 1950’s talking to people who designed movie sets and amusement parks, and came up with the idea of Disneyland—Captain Nemo’s Submarine, Pirates of the Caribbean, Space Mountain.

Collaboration is shared “understood” goals. Creative collaboration not only involves bringing people together, but enabling them to work together around a purpose larger than themselves. Michael Schrage, author of *No More Teams*, writes that one of the primary tasks of management in the years ahead is to be able to frame goals and problems in a way that inspire people to collaborate vs. do their own

thing or defend their own turf. 2 Creating shared understood goals allows smart people with big egos to subordinate their egos to something significant and lasting. It also creates a clearing that pulls people across the different professional fields and allows them to create a common language. We refer to this clearing as a “trading zone.” For people to collaborate, they must see the goal as significant and as something they cannot achieve on their own. The Beatles had a shared goal of writing and performing great music. Carter, Begin, and Sadat had the goal of peace in the Middle East.

Collaboration is building new shared understandings that lead to something new. The different views and perspectives in a collaboration are needed to help people better understand each other and light the spark of creativity. Each of us tends to see reaching a goal, solving a problem, resolving a conflict through our own world view. Often, we are completely unaware of how arbitrary our thinking and understanding might be. Thus, in every collaboration there is a need for open, honest dialogue in which people construct a shared understanding of 1) the problem, 2) its root causes, 3) the solution, and 4) actions to take. This shared understanding can lead to new ideas, fresh approaches, innovative solutions.

The best example of this is the Camp David Accords. In 1976, President Carter wanted to do something about peace in the Middle East. He invited Menachem Begin and Anwar Sadat to attend a meeting at Camp David. As the story goes, Carter asked Sadat, “Why is this land important to you?” Sadat said, “It’s been part of Egypt for thousands of years.” He asked Begin, “Why is this land important to you?” He said, “Because we don’t want tanks ten miles from our border.” This shared understanding led to something new, the land would be returned to Egypt, but a new “demilitarized zone” would be created along the border.

Collaboration is an act of shared creation. Arthur Koestler has written in his epic tome *The Act of Creation* that most people usually think and work along the lines of a single frame of reference. Creativity occurs when people are able to connect different frames of reference in a way that results in creating or discovering something new. Think of Gandhi who combined protest and pacifism to come up with “militant non violence.” Think of Alexander Graham Bell who combined the telegraph and the “sounder” to invent the telephone. Think of the non-stick iron which combines the iron and the non-stick frying pan. Koestler thought in terms of creativity as a matter of extraordinary individuals with great minds like Gandhi or Bell who had an “Aha” experience. Yet think about how much greater the possibility for creative, high leverage, catalytic ideas exists when many minds or an extraordinary combination of people are brought together through the shared context of a dialogue around a common goal or problem.

Collaboration can take a myriad of forms. We are often asked the difference between creative collaboration and teamwork. The answer is this: while all collaborations involve teamwork, not all teams are collaborative. Collaborations involve the creation of new value by doing something radically new or different—scientific breakthroughs, landmark legislature, new products. Most teams are focused on routine work and doing the same thing better—like the more efficient linking and coordinating of tasks. In the same sense, collaborative groups are made up of strange brews, nascent combinations of people. Most teams, even multidisciplinary teams, tend to be fairly homogeneous.

A collaboration can take the form of a semi-permanent network of 25 to 30 medical researchers seeking a cure for HIV; a multi-disciplinary team of 10 department heads (process owners) for a Fortune 500 company charged with reinventing an organization by shifting its emphasis from isolated tasks to integrated processes so as to deliver higher quality products and services; a 5 to 7 person coalition of elected

officials who pass a piece of breakthrough legislation; or a fleeting team of 2 or 3 elementary teachers who design an interdisciplinary study project on ancient Rome.

Creative Collaboration is an Idea Whose Time Has Come

Ideas have the power to change the face of things.

-Machiavelli

An Expanded View of What it Means to Be a Human Being

When we look up in the sky at night, space becomes time, for the stars that we are seeing do not show the light of the present moment but light of the past—radiations of the celestial present that are light years away from the earth will not reach us until the future. Similarly, when most people look out at what seems to be happening in the world around them, they do not see the the present, they see the past. In other words, we see what fits our world view. We admire golfer Tiger Woods marching up the 18th green in Augusta at the Masters because we see in him images from our own mind of the 1930's world of DC comics: action heroes like Superman and Wonder Woman who single-handedly accomplished feats that most of us would find difficult or impossible.

If we could pull a gestalt switch and see things from a different perspective, we would see something light years away from Tiger Woods, an apostle of our religion of the super hero. We would see that whenever anything of significance is being accomplished in the world today, it is

being accomplished by people collaborating across professional and cultural frontiers.

We would see that the future belongs not just to stars, heroes, or technical wizards who think and work in isolation, but to collaborative people who think and work together. It is not just the individual or technology on which the future of the world rests but an expanding concept of what it is to be a human being.

An Age of Hierarchy and Specialization is Colliding With an Age of Complexity

To deal with the complex problems we face, we elect a new president every four years, search for charismatic CEO, and seek out other strong leaders for our university or even our symphony orchestra. This is because we still see images of the strong leader on top of the pyramidal organization—the pharaoh or king at the top with different levels and specialized departments— even as we sit amongst its tumbled down ruins and try to figure out what to do. Again, if we were to pull a gestalt switch and would see things in a new way, we see that an age of hierarchy and specialization is colliding with an age of complexity. All too often, the bothersome issues and problems we face fall between the cracks of the organization chart.

For example, exhaust emissions from cars on the freeways of Los Angeles are rising in the atmosphere in great concentrations and entering into the food chain of the Eskimo in the Antarctic. A CEO in New York wonders what, if anything, he can do so that the smart people he has hired with six figure salaries can learn to think and interact better with colleagues or customers. Scientists in particle physics no longer carry out bubble chamber experiments in a lab in the woods but in labs that are half a city block long and contain hundreds (indeed thousands)

of people from distinct occupations and cultures—physicists, engineers, computer programmers, administrators.

Top-down leadership and narrow specialization were (and are) sound answers to relatively simple problems and times, yet a new “lateral leadership” model is emerging, based on stimulating “creative collaboration” between specialists who see and respond to the world differently. These specialists can be people thousands of miles apart and who communicate through phone, fax, modem and invent new pigeon or “creole” languages to communicate across occupational boundaries.

From Civilization to Planetization

We also see images of the past when we attempt to come up with creative solutions to problems that exist in world affairs. We see resolution of the Palestinian and Israeli settlement in terms of a nation state for the Israelis and a nation state for the Palestinians. This is because in our minds, we see the world through images of the past—nation states, armies, and religious differences. In so doing, we miss the shift from civilization to what Tiedhard DeChardin called “the planetization of mankind” or the many forces bringing us all closer together.

For example: 1) the global economy, 2) the shift from hierarchies to networks 3) the democratization of technology, and 4) the knowledge society. The reality is that despite all the things both groups in the Mid-East do to pull apart from each other—the six day wars, terrorist bombings and imprisonments—they increasingly interpenetrate on a day-to-day basis. Historian William Irwin Thompson has suggested that Jerusalem might become a city state, one analogous to the Vatican—not the military state of Netanyahu or Arafat, but a cultural zone governed by an ecumenical counsel as the earth’s first planetary city, a cultural shrine of the three “Abrahamic religions.” The world has had enough

nation states and armies. It now needs places to experience itself as a world.

Today, as the Mid-East peace process slows and government contacts dry up, a scattered but increasingly lush network of people-to-people contact is taking place. Some view it as a shadow peace process. According to the July 16th Boston Globe joint studies amongst Israeli and Palestinian specialists on the environment are taking place with the principle that “nature has no borders.” Palestinian and Israeli doctors from the Gaza Strip live for months together, training at Israel’s medical facilities, treating patients from both sides by day and going out to bars together at night. Contacts between lawyers, tax specialists, and customs officials are taking place every day. Palestinian and Israeli artists show and tour together. Teenagers from both sides, learn more about each other through school and sports programs.

When an Israeli businessman and a Palestinian engineer tried to cross a border at Cairo together, the Israeli was let through, but the Palestinian with a valid visa was roughed up by the Egyptian guards who said they would send him back on the next plane. Malki, the Israeli, said, “Let him through or I will go back too.” The guards let both through. Kinche, the Palestinian, said, “He put himself on the line for me. At that moment, I forgot his history and saw his humanity.” “There are fanatics on both sides,” Malki said, “we each have to give up little to learn to live together.” 4

The Great Man Theory of History is Reaching Its Limits

History is not just made up of facts and events but on interpretations. We choose our interpretation of what happens to us based on our beliefs and assumptions, which are often arbitrary. This becomes our “his” or “her”-story. For centuries, our story has been based on the “great man” theory or individualistic model. Our mental model acts like a filter. It

filters in information which fits it and filters out information that doesn't. In many cases, our individualistic model has blinded us to the real source of creativity and effectiveness. Today, there is a profound shift taking place from the individualistic to the collaborative model due to many factors, such as change and complexity. Thus, people are beginning to reinterpret much of what has gone on before in a new light.

For example, it has been commonly thought that the Declaration of Independence was written by Thomas Jefferson before the age of 26. While this would have been a stupendous feat for anyone, only recently have historians begun to look at the drafting of the document in a new way. MIT historian, Pauline Maier, has done important research revealing that the Declaration is not just a product of one extraordinary mind, but more a collective intelligence of ordinary people throughout the 13 colonies.

As a matter of fact, there were over 90 "local action" declarations that were adopted by the states. These gave rise to numerous town hall forums and debates from which a drafting committee of five outlined the articles to be included in the Declaration. From that group, Thomas Jefferson was chosen to be the draftsman. As John Adams told him, "You are a Virginia man and I am a Massachusetts man. I am obnoxious and you are not." (Maier told us that Adams thought he might be considered too controversial as he argued for independence day-in and day-out.) "Besides," Adams concluded, "You write ten times better than I do." 5

Music is another field where great works are viewed as the triumph of a single maestro. Recent evidence from scholars, however, shows proof that Mozart often collaborated on many pieces during the period of time he wrote the Magic Flute. Scholars believe he was involved in many Broadway or Hollywood style collaborations. Recently they came across two such operas. The Philosophers Stone, written in 1790, includes the names of those who contributed to various sections of the opera. Written above each section was the name of the composer in an unknown hand. Mozart's name not only appears above a duet, but is also inscribed above

substantial portions of the finale. The same applies to another opera, the *Magnificent Dervish*, and scholars suspect to many other pieces.

Of course, collaboration requires competence and knowing who not to work with. Mozart was once criticized by his patron, the Emperor of Austria, for having too many notes in his music. The Emperor suggested that a few notes could be cut. Mozart responded, “Which few did you have in mind?”

In science there are many historic examples of creative collaborations that are largely unknown. For example, in 1838, for amusement, Charles Darwin read “An Essay on Population” by Thomas Malthus. He was thunderstruck by Malthus’ idea that population multiplies faster than food. If that was true, than animals and plants must compete to survive, forming new species from the survivors. It was the creative combination of the ideas of the naturalist, Darwin, and the economist, Malthus, that led to theory of the survival of the fittest or “natural selection.” More recently, Einstein, renowned as the great genius who worked alone, once told a young girl who asked him about his experiments that he never conducted any. He said his work relied heavily on the experiments of other people.

Collaboration is Here and Now

When authorities in basic fields like history, science, business, the arts, politics, and economics start to see the world in a fundamentally new way and act accordingly, it is a sign of a cultural transformation. Cultural transformations are not news events that can be seen like the explosion of the atom bomb at Hiroshima at the end of World War II, or tanks crushing protesters in Tiananmen Square, or a peaceful picture of the earth sent back by Apollo astronauts from the Moon. In the middle of a cultural change, most of us cannot see what is really going on. Cultural transformations are more like deep, swift undercurrents that effect our passages about earth, our course through the maze-way of time and space, like a tide that sweeps us up from one beach to another without us

hardly realizing it. Nonetheless, when a cultural transformation occurs, there are many signs of a shift in the climate of the times.

The Crystal Palace Exposition, put on in the World's Fair in London in 1895, was not only the consummate symbol of the industrial revolution, but of management surrounding human culture and nature. Thomas Watson, founder of IBM, believed that there would never be a market for more than about a thousand computers world-wide and that these would be sold to the world's big industrial companies. Thus, we could say that the dawn of the information age occurred when IBM introduced its PC with an ad at the Super Bowl in the early 1980s that showed Charlie Chaplin running a conventional factory as he did in his "Classic Modern Times" with an IBM PC—the image of a machine worker becoming a machine programmer. The next era, called the age of biology, may make its presence known in vague ways through something that could have only come about as a result of a collaboration—biotech drugs. Yet, if we take a longer and deeper view, the next age may not be so much characterized by a breakthrough in technology, but by a breakthrough in the way we think and work.

Many Small Signs Show a Shift in the Wind

Oftentimes though there are many signs of cultural change all around us and we are not aware of them when they are occurring. Like an ant crawling on Picasso's Guernica, the figure and ground relationship is such that we are largely blinded to the full scale cultural distortion that is taking place. Yet, it still effects the way we see and respond to the world, the way we think and work, and the way we make our daily bread. In writing this book, we saw many such small signs that indicated a profound cultural transformation, one that would alter the way each of us sees and responds to the world. These signs have led us to conclude that collaboration is an idea whose time has come.

We have found hundreds of instances of collaboration through cursory glances in daily newspapers and professional journals, as well as through serendipitous conversations with friends and colleagues. These articles occurred across a broad range of fields, from government to molecular biology, from teacher education to hospital administration, from professional sports to the arts. They show a profound shift in the way people think and operate in their professional lives—from being an individual who asks “What can I create?” to being a collaborative person who asks, “What can we create together?”; from thinking and working in isolation to thinking and working together; from the primacy of the parts to the primacy of the whole.

The same trend evident in our professional lives is affecting our personal lives. As both parents share the role of breadwinner, and children participate in more and more sports and other activities, family life can present a complex planning and logistical dilemma. Here’s an anecdote about just how much creative collaboration is coming into play. Before the House and Senate leaders asked for family friendly schedules, many legislators’ children rarely saw their parents. When Dan Quayle was Senator from Indiana, his daughter Corrine was determined to get him to come to a school play in which she was performing. At the age of 7, Corrine had already learned where power lies in the Senate. She wrote a note to Bob Dole, then majority leader, asking him not to schedule any votes on the night of the play. He complied.

The Good News

Everywhere you look there are anecdotal examples that signal the arrival of an era of collaboration. Here are some of our favorites.

- *The Clinton administration has declared a national dialogue to eliminate racial prejudice. The dialogue was framed to not only root out prejudices between blacks and whites, but also prejudices blacks and other minorities had about themselves. “It’s hard to see yourself as*

an empowered person when you identify with ancestors who have been slaves, or brothers and sisters in jail.”

- *Peter Drucker has written that the single most important shift in the way business and work is being done is a shift from “ownership” to “partnership” and “from individual tasks” to “collaboration.” In 1996 there were over 10,000 strategic alliances, joint ventures, and mergers that took place. That is one an hour around the clock, every day.*

- *The judiciary from the state of Florida, reeling from a huge case load and fed up with adversarial lawyers, took a stand to refer all civil cases to mediation, or alternate dispute resolution, before a case can be heard in court. The results are extraordinary.*

- *A peasant boy broke his hip while playing at school in Istanbul, Turkey. The local doctors, suspicious that he was suffering more than a broken hip, sent X-ray images to doctors at the Mass General Hospital in Massachusetts via the Internet, where they diagnosed a benign tumor. The use of the Internet to transmit X-ray images is clinical first. The child was flown to Mass General for surgery and is expected to do well.*

The Bad News

When a new era is dawning, there are often signs that the old era, whose days are moribund, is still in its ascendancy. This is what cultural historians call the “sunset effect.” As one era prepares to rise in the sky, another goes out in a blaze of glory. So just as there are signs of lateral leadership, collaborative communication, and cross disciplinary learning, there are still many more signs to the contrary, signs of the search for charismatic leaders, of adversarial communication, and of fragmenting and specializing knowledge to such a degree that people from different departments in science, biology, anthropology, barely understand each other.

For instance, every three and one half years, we get passionately involved in electing a new president—even though nobody really believes that this makes much difference—because we still believe in the “great man theory” of history. People in government still debate across the aisle, each staking out their position and holding onto it for dear life, even though it leads to government gridlock. Or they stick to their own specialty or position and forget about the subtleties of issues. For example, the Democrats believe in Pro Choice, but rarely consider what happens to the soul of the aborted child or the spirit of the mother or other delicate issues. The Republicans believe in the Right to Life, but do not pay much attention to how the child will be fed, clothed, and sheltered after it is born. That’s a different department.

It is easy to stay centered in your old view of the world, to protect your noble certainties and ways of doing things when there is a lot of evidence to support it and not much in the winds of change. Yet when a new idea is born and the climate of the times shifts, people are brought to the edge of their old views and practices and start to feel uncomfortable. When this happens, there are always those who will resist a new idea, rather than care and feed it. There are also many signs of resistance to its proponents and of rejection by the existing culture.

For example:

- *One day after newspapers ran the story about the Clinton dialogue on race, authorities quoted in newspaper articles from all around the country said, “It can’t be done,” that Clinton’s proposed apology for slavery would never be a meaningful act, but a mere gesture. Two weeks later, another article ran that said that the debate was doomed to failure because whites, blacks, and others lacked a common language that would allow them to understand each other.*

- *In spite of putting people on teams, processes, and joint ventures, the real barriers to collaboration and communication remain, says Peter Senge author of The Fifth Discipline, the ones in people's heads,*

- *A United Airlines plane circled an airport while the three members of the crew struggled with a landing gear problem. The cockpit voice recorder showed that both the copilot and flight engineer knew their fuel shortage was becoming urgent. But they never directly told the Captain, whose mind was on the landing equipment. The plan ran out of gas, the engine shut down, and a crash ensued.*

- *To be sure, whenever there is darkness, there is scattered light. There were many more examples we found in our research into this book that encouraged rather than discouraged us.*

Creative Collaboration is Spreading In All Fields Independently

There is a story told about monkeys in the islands of the South Pacific. It happens that for time immemorial, monkeys in this region would dig up potatoes in the bush, rub them a few times with their hands and eat them fresh out of the ground. Then one day, it was observed that one of the monkeys took his potatoes down to the beach and started washing them in the ocean. The other monkeys on the island just watched at first. Then after about a week or so, they started washing their potatoes in the ocean too. The story shows how a good idea spreads. But the story gets even more interesting. It turns out, according to the anthropologists, that after about six weeks, all the monkeys in all the islands for 250 miles around started washing their potatoes too, without any obvious contact with the monkeys from the original island.

In doing research on creative collaboration in various fields, we noticed a very similar phenomenon. There are some learning leaders who have moved away from hierarchy and specialization and are using a collaborative approach in various domains as a result of seeing others “wash their potatoes.” We have all heard the same gurus and read the same articles that are part of a shared information pool that includes terms like “skilled facilitation,” “teams,” and “integrated processes.” At the same time, one of the most exciting aspects of researching this book is that we found people saying very similar kinds of things about collaboration in very different kinds of fields that having little or no contact with each other.

For example, AMC Thorndike, a famous particle physicist writes, “Who is the ‘experimenter’? Rarely, if ever, is he a single individual...” The “experimenter” may be a group of astronomers banded together to carry out their work with no clear internal hierarchy. They may be a group of young physicists or engineers working on the Hubble or on a manned journey to Mars. They may be a group of physicians and biologists working on a new wonder drug. One thing the “experimenter” certainly is not: the traditional image of the cloistered scientist, working in isolation at his laboratory bench.

Let’s turn to business and think about the words of David Kelly of David Kelly Designs, an award winning industrial design company in Palo Alto, California. “The age of the genius designer is long past. We are all very smart people. But today, given the complexity of the design process, creative ‘genius’ comes from the minds of lots of smart designers working together rather than just one of them,” says Kelly, whose company came up with the Apple mouse, the Crest toothpaste tube, and the design for the Motorola flip phone. “A true genius wouldn’t be very happy here. I don’t know if one exists.” 6

Or how about the arts? An article we read on jazz called, “What We Haven’t Done Before,” says that most jazz greats are “cats who walk alone,” yet they realize that no music is more fraternal than jazz. Great-

ness comes not from one man but from all exchanging ideas in a spirit of mutual support or friendly competition, often uniting them in a collaborative effort to raise the level of their art.”

In education, law enforcement, health care we noticed the same trends emerging time after time, convincing us that, today and in the future, significant and lasting accomplishment will not come from extraordinary people but from extraordinary combinations of people who learn how to think and world together. The following is intended to provide insight into how creative collaboration is showing up in diverse professions and fields of disciplines.

Creative Collaboration is Transforming Science, Medicine, and Technology

Standing on the terra firm of Mars, the atmosphere is the color of salmon, and the earth looks like a iridescent blue sphere in the evening sky. When Pathfinder spacecraft landed on the ancient planet with its octagonal shock cushions protecting the rover that would wander the surface, it may have marked the beginning of a new era, in both science and management. According to Geologist, Bob Anderson, “Pathfinder is blazing new trails in technology, but it is also a Pathfinder with respect to how people from different fields think and work together.”⁷ According to Project Manager, Donna Shirley, “Not one piece of technology on the Rover vehicle was the product of an individual mind, but was from creative teamwork amongst scientists, engineers and bureaucrats like me.” Shirley says that “the key is enough space for the brilliant people on a project like this to be creative, while maintaining enough focus and teamwork to make sure the project is brought in on time and within budget.”⁸

When we landed on the surface of the moon, it was a breakthrough in technology, but we lost the management technology that made it possible. One of the groups that is making sure this won't happen again involves a far flung collaboration of scientists researching the earth's upper atmosphere. Robert Claur, a space scientist at the University of Michigan and others are testing ideas about the relationship of solar wind and the earth magnetic fields through a computer conferencing system called the "Collaboratory." It is part of a multi-disciplined project that not only includes space scientists, engineers, and computer experts, but behavioral scientists. The psychologists have permission to snoop on what's going on, in order to better understand how scientists are learning to collaborate.

"The days of the single scientist are over," Claur told me. "We use five instruments stationed in remote places like the Arctic Circle to record complex events. It used to be that a scientist was an expert on one instrument (not others), which would blind them. Now through cross instrumentation, we can see things from new angles. It used to be that, with one instrument, we were looking at the universe through a small peephole. With five, it is like were looking through a mail slot." The data comes in live on the left side of a big computer white board. On the right side, there's a space (chat board) for the scientists to discuss how they interpret the data. Says Claur, "The more eyes on the data, the more likely a Eureka event!"

Collaborative Attitudes are Shifting Government Gridlock to Bipartisan Cooperation

It was a cold Sunday in January and black smoke from the ferry blew straight up in great gusts. The passengers had unknowingly taken the

ferry to see the Statue of Liberty. When they arrived on Liberty Island, they saw the sign “closed for the day.” The same Sunday visitors who had made a family pilgrimage to the nation’s capital were not allowed into Smithsonian. The following day, workers would find out that they weren’t going to receive their paychecks, having been deemed “non essential.” To be sure, we have no scarcity of strong, smart leaders in Washington—Clinton, Dole, Gingrich. What showed up as missing were leaders who could collaborate enough to pass a budget and keep the government open.

After this fiasco and the 1994 elections when the voters expressed their displeasure against Democrats and Republicans respectively, our national leaders moved beyond this climate of political acrimony and passed a bi-partisan bill to balance the national budget by the year 2002. Other bipartisan efforts also began to show. A dozen times each day in Congress, a chairman leaves a committee hearing and passes off the gavel to another party member. But one morning in May of 1997, Senator John McCain, a Republican from Arizona and chairman of Senate Finance Committee, did something different, he passed the gavel to Ernest Hollings, a Democrat.

According to a New York Times article by Michael Lewis, “A look of alarm passed Hollings face. He and McCain exchanged words. Then McCain moved quickly away and was gone before Hollings could adjust.” Later Senator McCain called one of the lowest ranking Democrats, Russell Feingold of New York and asked him to collaborate on a bill for campaign finance reform. “What are the odds that a Republican senator, (Republicans depend on PAC money) will come anywhere near my vision—public financing of elections? Why should he jeopardize his authority?” Feingold asked. McCain responded, “You are a Democrat and we disagree on many things, but there are others where we see the world in the same way. Let’s take a first step.” It was one man saying to the other, party politics are fine but only cut so deep around our real commitments. Since that time they have taken many

steps, among them the McCain Feingold Bill for Campaign Financing reform. 10

There are more incidents showing up like this every day, not just in Washington but in local statehouses. Donna Sytek, Speaker of the House of the New Hampshire State Legislature, says, “Collaboration is a much better approach to getting landmark legislation passed than conflict. I’ve found over time that there are three ways you can take in a legislative process. The first is as a contender who not only wants to win but to make the other lose—‘to get their pound of flesh.’ The other is as a cooperator, someone who goes along to get along. Neither of these are desirable.”

“The third alternative,” says Sytek, “is to be a collaborator. This involves gathering all the different stakeholders and suspending your stereotypes of each other. It also involves getting all the different sides aired, as well as the thinking process behind them. Finally, it involves coming up with a creatively constructive solution. The contender and cooperator approach usually produce a 9-8 vote, seldom the best legislation. The collaborative approach often produces a unanimous one. We like to see an unanimous vote because it represents that all the stakeholders involved have had a very productive dialogue.”

In Business, the Competitive Edge Will Come From the Collaborative Advantage

“I know of few Fortune 500 CEOs who would say they are in control of such a complex organization with so many variables,” says one executive at a conference. “I don’t want to create an organization with ladders and mechanistic functions,” says Juan Rada, former head of planning for DEC, “I want to create a tribe.” “Why not think of an organization as an “enterprise web of different specialists and companies for meeting customer needs,” says Robert Reich. “My vision is that of a radically

decentralized chaordic organization where tolerance of chaos generates order as in nature,” says Dee Hoch, former Chairman of Visa International. “Why not think of an organization as a living being?” asks Arie DeGuss. What all these voices and metaphors are telling us is that the traditional corporation based on top-down leadership and separate functions is over.

The Collaborative Corporation. A new era of the collaborative organizations which is characterized by lateral leadership and virtual teams is emerging. These companies will be more concerned with nurturing creative people with a view toward creating resources that never existed before, than they will be with reducing head count or linking and coordinating tasks in order to cut costs. Their focus will be on engaging customers in a dialogue about their goals and problems. The main question will be, “What’s missing in the way of innovative products and services that will make a difference?”, not “How do we improve what we are already offering you through existing products and services?” Instead of asking, “How do we break this complexity down into small parts and delegate them?”, managers will ask, “What new patterns of relationship and interaction do we need to create around this complex customer problem to solve it?”

Sourcing an Environment. That Nurtures Creative People. “Our vision was to build products that would help enrich people’s use of the PC,” says Andy Grove of Intel. “Yet, we purposely left it broad and flexible to encourage personal creativity and group collaboration.” Over the last ten years, many big companies have tried to unleash the human spirit, yet have been less successful at it than Intel. In the years ahead, the many people of the “E” or entrepreneurial generation will ditch the big corporation with its restrictive controls and boundaries to pursue their passions and emerging marketing opportunities. They will follow role models like Steven Jobs or Bill Gates, who paid attention to what

was missing, built it in collaboration with other firms, and wowed their customers.

Interconnectedness. Ten years ago, Michael Porter wrote that strategic success was based on “core competence.” Yet today, just being good at one or two things may not be enough. Companies are finding that they must also develop a “collaborative advantage” that involves the capacity to integrate your company’s culture, competencies, and processes with those of other enterprises to create a much better product or service for customers. Asks analyst Michael Schrage, “Do you think that Bill Gates of Microsoft could have developed Windows without collaborating with Intel? No. Do you think that Andy Grove of Intel could have developed the Pentium chip without collaborating with Microsoft. No again.” Collaborative advantage often involves creating new capacities to think and work together with others that may presently not exist, not just combining two technologies like ingredients in an omelet.

Demonstrating the Power of Collaborative Action in Projects. Big companies and small are throwing out the traditional model of organizations and using a project model. They will go out of their way to invent a creative, productive, friendly, informal environment where work is fun. “I try to foster an attitude of collaboration,” says David Kelly, of award winning David Kelly Designs, “by juxtaposing multiple ideas and talents in a zoo-like, carnival-like environment. People are constantly making things, talking about things, collaborating on things, and the key is to get the whole project in one room. As there are many projects happening at the same time, the place has the look of a three ring circus with great stuff lying around just being waited to be put together in some surprising fashion. Zany personal design projects abound—a crazy lamp that can see around corners will lie next to a half finished model of a blood analyzer and a new fangled design for a fishing rod.” 12

Globalization, Technology, and Cross Disciplinary Approaches to Complex Problems Leads to Collaborative Learning

We live in a “one world culture” says Polish head of state and philosopher, Victor Klavel. We are enveloped by a planetary consciousness that De Chardin called the “Noosphere” or “shared information pool.” As CNN put up a lattice work of communication satellites that surround the earth with technology, we all began to draw our identity from the same images—the same instant history where someone like Benjamin Netanyahu can be a CNN news commentator one day during the Iraqi war and Prime Minister of Israel the next; the same international business culture where all the traditional tribes have been found and photographed and made part of the market economy; the same myths through books like Thomas Moore’s “Care of the Soul.” While CNN teaches people all over the globe to speak with American accents, Americans are being exposed to “foreign ideas,” dissolving small town identities and cultural barriers. When the Dalai Lama goes to Washington and talks to Bill Clinton about Tibet, it is not just a local story about Buddhist freedom in Tibet, it is a morality tale that people throughout the planet participate in together.

We are learning collaboratively, not just through technology, but through increasing face-to-face contact at countless professional conferences each year, made increasingly accessible and affordable by jet travel. Walk through an airport in Zurich and you will see politicians, CEOs, and gurus hurrying off to attend the World Economic Conference in Davos where different ideas intersect and new ideas are formed—such as the “one party, two systems” of China or the “new volunteerism” of Colin Powell. At the same airport, you will see doctors from Boston, Madrid or Stockholm on their way to attend a medical conference on gene theory, or blue haired grandmothers from Iowa off on an educational tour to Poland. People often report at these meetings that

they learn more from building relationships and through talking to each other informally about common problems than they do from the noted speakers.

Thus, the idea of collaborative inquiry, where many different specialists think and work on a problem together, becomes a trend. MIT has set up a learning collaborative based on Peter Senge's idea of the "learning organization." Some thirty groups, including corporations like Ford, as well as the Peel Police Department in Canada and local school boards, are learning from each other.

Creative Collaboration is Giving People the Opportunity to Make a Difference

Diane White, a 25 year old resident of Everett, Mass, missed the call to volunteerism from Philadelphia's Cradle of Liberty by Colin Powell in May 1997. She was too swept up in volunteering. She staffs a hot line at New England's largest shelter for abused women. For White, a customer service representative for Citizens Bank, the desire to give something back wasn't lacking, time and opportunity were. What made the difference was hearing about the community service sabbaticals offered by her employer, Citizens Bank. CEO Laurence Fish initiated the program in partnership with local government leaders and non-profit social service organizations in a program nicked-named strategic philanthropy to emphasize a public private partnership. To make this real, Fish offered Citizen employees the opportunity to take three month community service sabbaticals and receive their full pay and benefits with a guarantee that their job will be waiting for them upon their return. "I didn't do it to be altruistic," Fish says, "community service makes better employees." The program shows that people want to make a difference, and given the opportunity, they will.

There are other signs of a more collaborative approach among organizations that deal with environmental issues like land use. In

Gunnerston, Wyoming, ranchers and environmental volunteer groups were traditionally at odds with each other and stereotypes prevailed. The environmentalists tended to label ranchers with a condescending “All you care about is profit.” The ranchers tended to look at the environmentalists as “the Commies coming over the next hill.” Then the condo developers moved into the beautiful, lush, green valley and begin eating up the range, and both sides realized that they had something at stake that was more important than their stereotypes. Some dialogue and brainstorming sessions occurred that included all three groups building a human relationship through face to face contact and then collaborating on how they could save the range. They came up with the idea of putting the land in trust so it could never be sold. The developers agreed to only use only certain lands and devote profits from development to environmental non-profit groups.

The same shift in approaches is occurring on the international scene with issues like hunger, poverty, and disease. In Kivu Province, Congo, a white Land Rover, bearing the red totem of “Doctors Without Borders” churns through the muck and mire that passes for a road in the rainy season, gears grinding, tires spinning as they seek to grip something solid. The agency was formed a few years back when French doctors were angered by the Red Cross’s refusal to allow doctors to work in the rebel controlled Nigerian state of Biafra. These doctors were also fed up with relief agencies that were overly specialized—one would do surgery, another would handle food and water, and another flood relief. This approach made it hard to deal with the problems that were interdependent.

“Doctors Without Borders” regularly recruit top physicians, nurses, and other volunteers from all over the world. The objective is not to prove how great they are in their own specialty, but to eliminate suffering—whether it takes the form of a cleft lip and palette in need of surgery, a hungry child, or a burned down village in need of new shelter. 16 Other groups, like International Relief Teams (IRT), not only send in

emergency surgical teams to war torn or poor areas that lack specialists in cardiology, orthopedics, and eye care but also teams who teach local medical people and hospitals the latest techniques. The doctors are often top people who are tired of the fact that medicine has become a business and are willing to devote one or two weeks to a good cause without having to give up their practice. In 1996, IRT sent over a dozen teaching teams to train 25 to 50 local medical workers in countries like Latvia, Lithuania, and Armenia which lack skills in cardiac resuscitation, infant medical care, and traumatic medicine. These groups of 25, would in turn, each train 25 others, thus impacting thousands.

Artists are Intertwining Across Disciplines to Create New Spontaneous Expressions

Ezra Pound once wrote, “artists are the antennae of the human race,” the sensing point for small signals that point to a future the rest of us are not yet aware of. Thus, the arts have long been a field where people have worked in a collaborative manner. Michelangelo created outlines of frescoes in Renaissance Florence and his students filled them in using their own imagination to interpret the colors. Some scholars see the masterpieces of Shakespeare, not as the work of one person, but as the result of a committee who worked with him under his direction. In this century, novelists and painters who gathered in Paris in the 20’s, people like Fitzgerald, Hemingway, and Gertrude Stein, inspired and challenged each other artistically.

As F.M. Ford reminisced about his collaboration with Joseph Conrad, “We would write for whole days, for half nights, for half the day or all the night. We would jot down passages of scraps of paper or on the margins of books handing them one to the other or exchanging them. We would roar with laughter over passages that would have struck no other soul as humorous. And we would almost sigh over others that no other soul perhaps would have found as bad as we did.” 17

Today, what we see in the modern movie theater— films like “Raiders of the Lost Ark,” “Jurassic Park,” “Toy Story,”—are powerful demonstrations of creativity and teamwork. As magicians from the Hollywood movie set—directors, screen writers, actors, make up, sound and light people—come increasingly into contact with mechanists of the the world of technology to do spectacular special effects and computer animation, something is created that allows all of us to transcend the humdrum aspects of daily affairs. “We not only collaborate to create movies,” says Stephen Spielberg, “we create collaborative teams that can work together and give the audience something special.” The capacity of highly talented people with big egos to come together from different fields, build relationships and create a movie like “Close Encounters of the Third Kind,” “Schindler’s List” or “Braveheart,” with constraints of time and budget, is something extraordinary.

In music, one of the most popular recordings of recent years was “The Three Tenors.” Pavarotti, Cararas, Domingo performed together for the first time, singing popular songs in a different way not only based on their own particular talents and gifts but also harmonized so as to create a surprisingly new and powerful effect.

The Recipe

Can a small group of people who see and respond differently to the world make a difference? Indeed, history shows it is the only thing that ever has.

-Margaret Mead

Is there a recipe for creative collaboration?

In our work at The Institute for Collaboration—an organization devoted to the study and practice of Lateral Leadership, Creative

Collaboration, and Coaching—people frequently ask us for a recipe. One response we give is: we can give you a recipe, but given your level of consciousness, none of the recipes will work. In many cases, mastering these disciplines requires not just a recipe, but also reflecting on deep beliefs and assumptions. At the same time, we recognize that people today often do not have the time or inclination to reflect. What we are offering you in this book is something as simple to follow as a recipe, but that also has the power of a methodology that is carefully thought out and structured. The power of the recipe comes from an appreciation of the complexity, not from oversimplifying it. Here are some simple, powerful things you can do to make sure that creative collaboration happens. (These will be revisited in Chapter 3 in more detail.)

Step 1.

Make a Declaration of Impossibility

Watson and Crick declared the possibility of the double helix and DNA. The Wright Brothers declared the possibility of men flying in machines heavier than air. Fred Smith of Federal Express declared the possibility of 24 hour package delivery. In a sense, what made these things possible was people taking something they didn't believe could happen, declaring it possible and then making a commitment to transforming it into a reality. The first step in our recipe then is for you (or your group) to declare a bold new possibility.

These questions may help: What is your point of view about the future of your field, and who would you (or your group) like to be in that future? What's a breakthrough target, complex problem, or intractable conflict you (or your group) would like to impact? What would you (or your group) like to create or discover that never existed before? People collaborate when there is a purpose that is deeply meaningful to them and that they realize they will not be able to achieve it on their own. It is having a purpose larger than oneself that pulls unlikely collaborators

across frontiers and allows them to subordinate their dogmas and egos so that they can think and work together. All the more so if the purpose is intriguing, novel, and fun.

- *Once you have thought about these things, complete this sentence. I (we) designate that [the idea] is possible and I commit myself to transforming it into a reality.*

Step 2.

Bring extraordinary (crazy) combinations of people together to help accomplish the possibility.

There is a much greater possibility for creative collaboration when you juxtapose multiple ideas and talents, have all the key stakeholders involved, and air divergent points of view. Think in terms of an extraordinary combination of people. Think in terms of who could assist in accomplishing the possibility you have designated, instead of thinking in terms of the same “ordinary” combination of people that you usually interact with. The Mars Project brought together physicists, engineers, geologists, software people, bureaucrats and seamstresses. Roger Fisher, who co-authored “Getting to Yes,” brought Chilean soldiers and Ecuadorian gorillas, sworn to kill each other, together to negotiate for a year. Remember, Walt Disney collaborated with carnival people and movie studio folks. It is often crazy combinations of people that lead to the most innovative ideas.

A restaurant down the street called “Shalom Hunan,” owned by a Chinese chef and an Orthodox Rabbi, serves a interesting combination of Chinese Kosher foods. In designing your creative team, it is important to think outside the box. Yet it is also important to think in terms of people who are competent in their area and who can add value to the project. Who are the stakeholders that you would like to get in one room? Who

could bring a fresh view or perspective? Who has key skills and capabilities that are needed?

- *What would be an extraordinary combination of people to bring together in this project?*

Step 3.

Build shared understanding to create a strategic plan through empowerment and recognition.

The next step involves strategic planning around what people expect, their goals, the current reality, etc. Shared understanding is built through honoring diverse views and perspectives, empowering people to speak up and making sure they are recognized. The designated possibility is translated into a shared understood goal (or next milestone) “Man on the Moon,” “Peace in Bosnia,” “Enriching people’s use of the PC in a way that inspires people to collaborate”, etc.

Once you’ve done this, create a shared understanding of the current reality by having a dialogue about all the facts pertaining to the project (factors that forward or impede its success). It is important to do this in a way that is empowering by sticking to the facts all agree to and by avoiding discouraging interpretations, such as “It can’t be done.” For example, when the Apollo project started, it was a fact that we had sent monkeys up into space and it was also a fact that we didn’t have the right rocket fuels or metals for a manned flight to the Moon. Before the Camp David Accords, we knew for a fact that people on both sides were killing each other every day in the Middle East.

- *What is a short term goal the collaboration will accomplish (in weeks, not months)? What is the time frame and budget? What is the shared approach?*

Step 4.

Create what's missing that, if provided, could produce a breakthrough.

Once people have looked at the goals (milestones) and current reality, they are in a better position to look at what needs to be created. Gather the whole group together and brainstorm around the questions “What’s missing that, if provided, would produce a breakthrough?” For example, a new rocket fuel, a creative win/win solution like the demilitarized zone in the Sinai, a breakthrough product like Netscape that allows people to find what they want on the Internet.

Asking the question, “What’s missing?” is a different from asking “What’s wrong?” or “What isn’t working?” The first question leads to being creative and generative, the latter leads to analysis-paralysis and blame. “What’s missing” is often something that combines ideas and talents in an unconventional way. For example, when it was recognized that people were starving in a district village in India, the Hunger Project gathered the stakeholders together and asked, “What's missing that, if provided, could make a difference?” In answer to the question, they created a collaboration in the village between a nutritionist, who found out what was wrong in people’s diets, and a horticulturalist, who taught people how to grow the right grains and vegetables.

• *What new idea, fresh approach, or innovative solution will help me overcome difficult facts and circumstances and reach the next milestone in the project?*

Step 5.

Build shared workspaces that allow you to demonstrate the power of collaborative action.

There are many people who feel they spend too much time in meetings, and that actions speak louder than words. Taking collaborative action is vital to maintaining team aliveness, and that action needs to be directed at actually accomplishing something that is high leverage and catalytic. The idea is to accomplish one thing toward the first milestone objective, and then accomplish the next so as to create a momentum of accomplishment that rallies the project to completion.

Once you identify what's needed and wanted and what's missing that, if provided will achieve it, create a sketch, quick prototype, or scale model. Picasso, and Braque constantly sketched together in the process of creating cubism. Watson and Crick worked together on metal models of the DNA double helix. The people from the Mars Project created numerous scale models of the rover for testing. The sketch, prototype, model, etch becomes a shared workspace for bringing diverse views and perspectives together, as well as seeing whether the idea you have come up with can be made to work in reality. It helps to have tools around that allow people to think out loud, like a pad board or white board where it is possible to collect ideas, connect them, and create something new.

• *What model, prototype, or sketch can we make to develop our idea and how can we test it in reality?*

About the Author

Robert Hargrove is a world-renowned, revolutionary thought leader in the field of talent development and coaching. His motto is *Better Leaders, Better World* and he believes that coaching leaders to achieve an Impossible Future is the fastest, most powerful way to achieve both.

Hargrove is the founder of Masterful Coaching and served as a Director of the Harvard Leadership Research Project. He has been awarded for Distinguished Public Service by the United States government for his coaching work with political leaders.

Hargrove has also played a pivotal and instrumental role in rebranding campaigns in companies like Adidas, Philips Electronics, Estee Lauder, and the National Hockey League.

Hargrove's coaching approach is one of the only methods which delivers real ROI. According to one client, "*We pretty much stuck with the Masterful Coaching approach and it made the company hundreds of millions of dollars.*"

Hargrove is the author of best selling business book *Masterful Coaching* and many other books on leadership, coaching and collaboration.

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