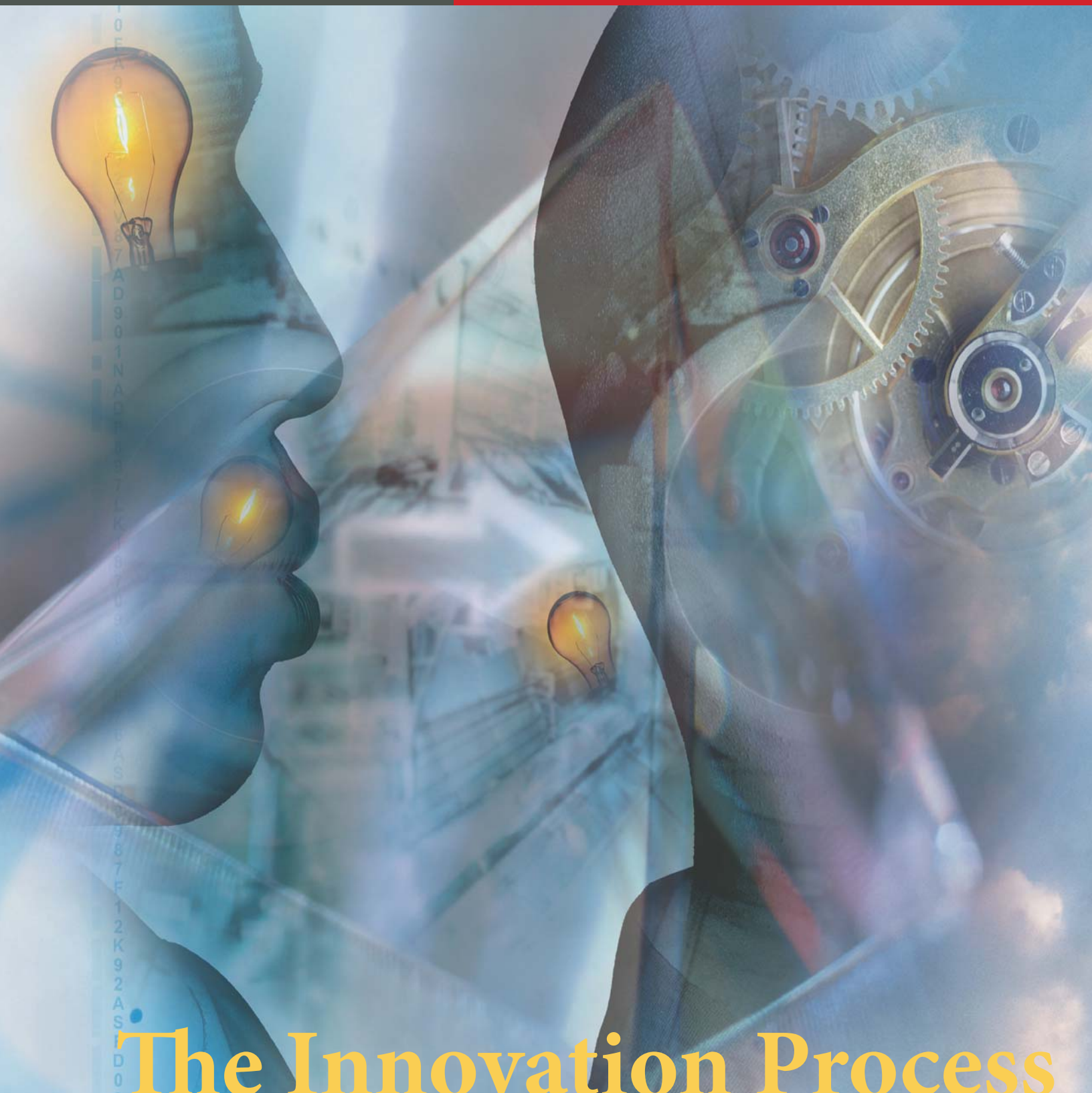


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The Innovation Process

Energizing values-centered innovation from start to finish

By William C. Miller

INNOVATION CONVERSATIONS

A Series of Three Books on Values-Centered Innovation

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INNOVATION CONVERSATIONS

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Energizing values-centered innovation from start to finish

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William manages to do the nearly impossible — taking topics as ethereal as spirituality and elusive as creativity, and transforming them into practical tools for revitalizing organizations.

— Jim Kouzes, Chairman of Tom Peters Learning Systems
Co-author of *The Leadership Challenge*

Introduction **The Art and Discipline of Innovation**

Perhaps the most significant epic journey of modern times is not found in literature, but in the real-time voyage of man into space — walking on the moon, seeing the earth against the backdrop of the universe, and bringing that extraordinary shift of perspective back to the planet.

Edgar Mitchell, a member of the 1971 Apollo XIV crew, is one of those rare people who had the privilege of walking on the moon's surface. He once related his adventure to me, including how his experience in space led to his returning to Earth as a very different person.

The idea of going to the moon was virtually an irresistible challenge. I characterize the space flight — of getting off the planet — as being an event as significant as when the first sea creatures crawled out onto land.

Preparation for the Apollo flight involved many skills, plus all the academic work. All that knowledge and skill had to be practiced to a point where it was automatic. To deal with unexpected events, however, is when our judgment would come into play.

The problem that posed the most potential for creativity was before we went down to the lunar surface. The automatic abort system had failed in such a way that if we tried to descend to the surface, it would automatically take us back into orbit. This was less than two hours before we were supposed to start down to the surface. We finally came up with a way to reprogram the computer, with just a few seconds to spare, only minutes before the engines were to be ignited.

This powerful experience of seeing Earth and our whole solar system against the background of the cosmos had a very profound effect — an overwhelming sense of being connected to all things. I recognized that our scientific description of the way the universe is put together was at best incomplete and perhaps in some ways inaccurate. The universe is more of a living organism than a set of discrete things.

What came out of that experience was an enormous sense of responsibility that goes with the power of creativity. We each have to accept, along with our creative potential, the responsibility that goes with it... to become proactive rather than just reactive. And that means letting go of fear. Automatically that brings this deeper sense of love and responsibility for one's self, surroundings, environment and planet.

He summed up his transformation, and that of many fellow space travelers, by saying, “We went to the moon as *technicians*. We returned as *humanitarians*.”

Man’s journey to the moon and back was not only an extraordinary achievement of technical and engineering innovation, but an indescribable hallmark in the history of mankind. For the first time, we, as humanity, saw ourselves floating in space. It was, and still is, a transformative experience that illumines our continuing quest for innovation and progress. The question is: Do we undertake that quest for innovation as technicians or as humanitarians?

In one way, the history of mankind can be told as the epic story of man’s innovations in art, religion, science, business, technology and culture. Yet today, as the pace of innovation spirals in the context of the global economy, we can more readily see that innovation can have both positive and negative consequences.

On one hand, we have rid the world of smallpox and are on the brink of eliminating polio. On the other hand, the major causes of death today are lifestyle-related (such as cancer and heart disease), not viral or natural; and we often use our healthcare innovations, such as pharmaceuticals, to temporarily relieve physical maladies, so we can continue our unhealthy lifestyle habits with less discomfort.

As time progresses and we evolve as a community of species on this *Spaceship Earth* (as Buckminster Fuller called it), we see that we are co-creating the course of our planetary and cultural evolution through our innovations.

So the questions of the day have expanded from “*What* can we innovate?” and “*How* can we be more innovative?” to include “*Why* are we innovating?” and “*How* can we focus our innovative thinking on more positive, useful purposes?” The call is not just for more innovation, but for innovation that contributes to the well-being of all stakeholders, including customers, suppliers, employees, shareholders, society and the environment — innovation with a social conscience, innovation driven by our higher human values.

The Art and Discipline of Innovation

Innovation is both an art and a discipline. As an art, it’s a human endeavor that can be driven by values as we work collaboratively to create what is most meaningful to us. As a discipline, it has processes and principles that are actually quite simple, and can be learned and practiced.

The field of innovation has the Total Quality movement to thank for establishing two important principles:

1. *Innovation is an important part of every job.*
2. *Every person has the capacity to contribute to innovation.*

When Edward Deming and Joseph Juran sparked the Total Quality Management movement in Japan in the 1950s, they taught the *discipline* of quality improvement: techniques to identify quality issues, find and implement solutions, and follow through with continuous improvement. The Japanese culture supplied the all-important social structure to implement those techniques by training everyday workers — those who were closest to the work processes that needed improvement — in the art of conducting

“Quality Circles.” As we all know, by the 1980s, the world was beating on the Japanese doors to learn how to manage quality as well as they were.

Two principles have emerged from this movement essential to the field of innovation. The first is that TQM demonstrated that everyone has the capacity to generate and implement innovative ideas, if given the right tools. That’s the discipline. The second is that TQM spread the responsibility for quality so that “innovating improved work processes” became everyone’s job; it was no longer just the quality engineer’s job. That’s the art.

These principles apply not only to working on innovations in new products and work processes, but in marketing and sales, knowledge management, organization design, business models, and leadership practices.

The Journey of Innovation

To borrow a phrase, the art and discipline of innovation “is not rocket science.” But it is powerful enough to build and launch a spacecraft. It’s something we can all participate in, given the right understanding and framework. And when we are innovating skillfully, while practicing strong values, we will naturally contribute to others’ well being.

Innovation means much more than just coming up with creative ideas; those ideas have to be put to work to create a benefit. Innovation can be seen as a journey that starts with setting a purpose or goal, and ends up with innovative achievement and new learning. All along the way, innovative thinking is required. So is knowledge. So are values.

In this book about the process of values-centered innovation, the name of the innovation model you’ll learn about is the *Creative Journey™*. It’s a model that I developed in 1987, just after I left my position as head of Innovation Management at SRI International (formerly Stanford Research Institute), and started my own consultancy, the Global Creativity Corporation.

For the past 20 years, I have applied this model with professionals in a wide range of scientific, technical, engineering and R&D organizations. And just as well, I have employed it whenever a situation called for an innovative solution in marketing, sales, finance, IT, manufacturing, operations, human resources, strategic planning, or customer service. It has worked cross-culturally in more than a dozen countries around the world, with people as diverse as corporate executives, R&D scientists, and school bus drivers.

This book will be a simple one without being simplistic. Its aim is to provide a way to understand the process of innovation itself, and how people of any job can apply it to the challenges and opportunities they find in their day-to-day work.

When you combine your own knowledge and skills with the perspectives and tools offered here, I have great trust that it will boost your ability to innovate, both alone and in a team, and make a positive difference in the lives of your colleagues, your customers, and the course of our future.

— William Miller
October 2007

Chapter 2 **Innovation and Values**

In my days as head of Innovation Management at SRI International (formerly Stanford Research Institute), I was convinced that values were an important driver of corporate innovation. I saw time and again that values provided the energy behind “product champions,” and “intrapreneurs.” After I left SRI, my understanding of the role of values grew to new heights upon meeting Frank Carrubba, one of the high-tech luminaries of the past 20 years.

As Director of HP Laboratories, and later as Executive VP and Chief Technical Officer of Philips Electronics, Frank became one of my favorite consulting clients. At both companies, he was responsible for all corporate research and advanced development, and he once received the “Inventor of the Year” award from the U.S. Intellectual Property Owners Association for his RISC architecture work. When he spoke, I listened.

One day, Frank shared with me the results of a study he sponsored at HP Labs about the difference between product-development teams that failed, those that succeeded, and those that achieved *extraordinary* success. Ever since, I’ve enjoyed passing along what I learned from him about the relationship between innovation and the values held by individuals and teams.

As you might expect, the study found that teams that failed differed from those that succeeded in degrees of talent, motivation and commitment to succeed. *However*, there was *no* difference in these factors between the successful and extraordinarily successful teams. Instead, two other factors clearly stood out.

First, Frank found that *Those teams that stood out had leaders and managers who treated their customers as they themselves wanted to be treated*. He said those teams not only perceived that they had customers (a techie breakthrough in itself at the time), but also truly *cared* for those customers.

Second, Frank saw that *Team members found in themselves the qualities of spirit and truth... They were people who had no reason to wear a particular mask, because they were always what they were, every single hour of the day*. He said they were authentic, and didn’t have to pretend to be something that they weren’t, or know something they didn’t know.

There you have it — a remarkable finding that Frank also repeatedly observed as Executive VP at Philips: the difference between successful teams and extraordinary teams, in the ultimate high-tech world, was the presence of two sincerely-practiced values: caring and authenticity.

Frank made sense of this discovery by saying that a team of people with high levels of talent, motivation and commitment will naturally find a way to achieve, let’s say, 75 percent of their potential. But extraordinary success demands more, and achieving 100 percent of their potential depends on the quality of relationships that they foster. And that’s where the values of caring plus authenticity come into play.

The role of values in the art and discipline of innovation

At this point you might be asking, “Why make such a big deal about values, when there are so many other important things to cover about the innovation process?” In the Introduction, I spoke about the art and discipline of innovation. As an art, it’s a collaborative human endeavor. As a discipline, it has processes and principles that can be learned and practiced. Values play a critical role in both.

When innovation is values-centered at all levels — individual, team and organization — we are conscious of creating what is truly important to us and beneficial to others. And since innovation is more than just dreaming up a creative idea, and sometimes we have to work hard to actualize that idea, values are what motivate us to complete the full process, from start to finish. So to me, values are part-and-parcel of any discussion about innovation.

The word *value* comes from the Latin verb *valere*, which means *to be worth and to be strong*. In our daily lives, values are feelings and convictions regarding what is of strong worth (i.e., of importance) to us in what we think, say and do. Values shape what is meaningful and motivating for us.

Personal values have long been under-appreciated as a driver of innovation. People who are aware of their own values will naturally strive to find a way to express them through their work. Having personal values as the driver of innovation raises the level of personal investment, dedication and commitment it takes to innovate.

Research by Barry Posner and W. H. Schmidt has shown that clarity about our personal values is more important to our job commitment than clarity about our company’s values. In their research, people were asked to rate three things:

1. How well they understood their company’s values
2. How well they were aware of their own personal values
3. How committed they were to their work

Chart 4 shows a surprising result: the increase in commitment came only from an increase in self-knowledge about personal values, not from more understanding of company values!

Chart 4 — Values and Commitment¹²

CLARITY OF COMPANY VALUES	Low	4.9/7.0	6.3/7.0
	High	4.9/7.0	6.1/7.0
		Low	High
		CLARITY OF PERSONAL VALUES	

Of course, the ideal is an alignment between company values and personal values. It seems like every organization today has a set of values it wants its employees to embrace and practice. These values are part of the mission-vision-values that align and attune employees to a common direction and are intended to guide decisions at all levels and provide cohesion.

According to former World Bank Values Coordinator Richard Barrett, consultant and author of *Liberating the Corporate Soul: Building a Visionary Organization*:

Research shows that when the values of employees are in alignment with the values of the organization (the leaders of the organization), the organization is more successful and more focused on customer satisfaction and community service. Organizations that don't have this alignment tend to be more inward looking, bureaucratic and stressful to work in. They may be financially successful, but find it difficult to hire and keep self-actualized individuals and talented people.

The alignment between organization values and personal values often comes when people come together in teams. The Hewlett Packard Corporation once conducted an internal study to discover the best practices of their highest-performing managers. One finding was that their best 200 managers consistently worked with their people to define a set of group values that everyone was committed to. They then posted these group values as “guiding principles” for all decisions and actions. Through these discussions, these managers fostered the linkage between personal and organizational values.

Whether you and your team or organization are trying to achieve realistic, practical, bold or exciting results with your innovative work, values are the key. They help individuals to tap into their greatest sources of energy and inspiration as they more fully invest themselves in what they are doing. They help teams to work collaboratively toward goals based on common priorities. And they help organizations foster a positive culture.

Who benefits from innovation?

It's not hard to see the positive and the negative impact that the human propensity for innovation has had on our quality of life. On one hand, we have an electronic global network. On the other hand, we have the accelerating effects of global warming. On one hand, we have innovated with job design and job enrichment, in white collar jobs as well as manufacturing, to empower people with more complex and self-affirming jobs. On the other hand, with the allure, power and demands of these jobs, we have fostered a new breed of workaholics who choose to work rather than spend time with their families, leading to an epidemic of work-life imbalance.

While this list could go on and on, it is an important reminder that what we do daily in our work has an impact on the people and environment around us, for better or for worse. Sometimes that impact is with just a few colleagues at work, sometimes it's with our many customers, and sometimes it's with our whole community or country, or more. Whether we focus our innovation impacts on our own sphere of life — work colleagues, customers, friends and family — or a larger picture of society, what we

do today co-authors the story of the future. Marshall McLuhan coined the term *Global Village* to communicate that we're all neighbors, and the actions of people 10,000 miles away can have a huge impact on us. And vice-versa.

This point of view raises some provocative questions for every person and organization: Thus far, we've focused on the domains and aims of innovation from the point of view of the organization that is producing them. But what about the people outside the organization — such as customers, suppliers, society, shareholders, even the environment? Where do they fit in to the picture? Are our innovation activities fueled only by self-serving motives? Or are they energized by our wish to contribute to the well-being of others? Can we afford to do both?

More than most people expect, when values are the driver of innovation, *both* are possible at the same time. An example of this dual choice for supporting "fellow villagers" while growing a successful enterprise comes from the Planters Development Bank in the Philippines. Floy Aguenza is its President, and the story she shared with me demonstrates what can happen when people in an organization integrate their values with the art and discipline of innovation.

Originally, the bank's Chair wanted the bank to join the top tier of big banks in that country, but as Floy stated:

Somewhere along the way, this bank found a new calling. During the times when it was starting out as a small bank in a provincial town, it had no choice but to cater to the small businessmen of the area. We worked closely with them, giving them the proper guidance, and their businesses started to flourish. We became a part of their lives, helping their business as financial advisors and even more than that; we became friends.

We saw the impact our bank was making within this small community, and it touched our hearts in a special way. From then on, we made a decision that we would continue to serve this niche, no matter how big we would become.

The bank was innovative in the way it attracted new customers and developed relationships with them, deliberately including their customers' values in their credit approval process:

When talking to new customers, an important part of our credit process is finding out about the character and lifestyle of the principal. We go to their place of business to observe how they run their business and treat their employees. We want to lend to companies and businesses which are anchored on the right values.

They even developed a unique approach and philosophy to growing the bank financially.

This bank has been set up by the shareholders and they expect a good return. However, equally clear to us is that it is not profit at all costs. This must be balanced with all of the other concerns of the organization, and its role in society. In our case, profitability and social impact are fundamentally intertwined.

We are the only development bank that is partly owned by multi-laterals such as the World Bank and the Asian Development Bank (ADB). They invested in our bank because they saw our developmental impact and how we are

...serving as a catalyst for economic growth by our work with the small and medium enterprises (SMEs).

And what has actually been their growth?

In terms of ROE, Planters Bank is the seventh most profitable private domestic bank in the country. Although we are larger than half of the commercial banks, we have resisted converting our license to such. The impact that we have made to the lives of the many small businessmen we have dealt with has inspired us to continue to deal with this sector.

What is Floy's message to the rest of us about the role of business in society?

Businesses have a role to play in nation building and in building the character of the people. If we all do something, we can all gain. Businesses must live by the right values, not just strive to be number one while sacrificing all else.

It's clear that we can target our innovative efforts to contribute to the well-being of others — customers, suppliers and employees; society as a whole; shareholders; and the environment — even as our own organization thrives. It's all a question of values.

What is *Values-Centered Innovation*TM?

A discussion about innovation would not be complete without acknowledging the link between innovation and learning. In the form of information and knowledge, learning stimulates innovation. And in return, innovation gives birth to new learning and knowledge. One way to experience the relationship between learning and innovating is to tune into our own breathing rhythms. Learning and innovating go together just like inhaling and exhaling:

- ***Inhaling = learning***: acquiring, creating and sharing new knowledge; converting knowledge to wisdom
- ***Exhaling = innovating***: generating, deciding upon, implementing and celebrating innovative responses to opportunities and challenges

Values play the key role of asking, "*Why are we breathing in the first place?*" — and providing the meaning and motivation for this "breathing process." In quick review, we could say that learning provides new levels of *Know-what?* Innovation produces new levels of *Now what?* And values pose the question, *So what?*

When we put our values into practice, we also strengthen our emotional intelligence (EI) — our ability to perceive, use, understand and manage our emotions. Daniel Goleman's model of EI and management effectiveness¹³ emphasizes the importance of self-awareness, self-management, social awareness, and relationship management. In Frank Carrubba's story at the beginning of this chapter, the key value of *caring* is part of social awareness and the value of *authenticity* is part of relationship management.

Integrating all that we've covered thus far, we can now revisit and expand our original definition of innovation to include learning and values. We can conclude that...

VALUES-CENTERED INNOVATION™ IS:

- the application of learning and knowledge
- to develop and implement
- breakthrough and incremental improvements
- in products/services, processes, knowledge and leadership/management practices
- to contribute to the well-being of stakeholders (customers, suppliers, employees, society, shareholders and the environment)
- while generating new revenues, reducing time and costs, increasing intellectual capital, inspiring the work force, and focusing the leadership
- in alignment with personal, team and organizational values

Having an innovation conversation

To help clarify and integrate your insights from this chapter, consider the following questions. Use them to start an innovation conversation with your colleagues at work, and see what you can all learn from each other.

Consider:

1. *What personal values do you hold as most important in your own work?*
2. *How are those personal values reflected in what and how you innovate?*
3. *How aligned are your personal values with your organization's values? How does this impact how and why you innovate?*
4. *When you add the dimension of values, how does it change your definition of innovation from Chapter 1?*

Now consider:

1. *When have you taken the lead on your team to support your colleagues to be more innovative?*
2. *What qualities did you rely on in yourself to do that?*
3. *What are the most important insights about yourself and your work that you have gained from this book?*
4. *What's a personal Creative Journey you could undertake to put those insights into practice?*

About the Author **William C. Miller**

For over 20 years, William Miller has been an internationally-recognized expert on values-centered corporate innovation — both as head of the Innovation Management program at SRI International (mid-1980s) and as president of the Global Creativity Corporation (since 1987). Most recently, he has co-founded Innovation Styles Inc., (www.innovationstyles.com) which offers web-based resources to organizational leaders and consultants who wish to boost innovation in all facets of work.



Since 2003, he has been acclaimed by *Leadership Excellence* (www.eep.com) as among the top 30 leadership consultants worldwide. Two of his four books — *The Creative Edge* (1987) and *Flash of Brilliance* (1999) — have been rated among the top 30 business books of the year in the USA by Executive Book Summaries. His audio program *Creativity: The Eight Masters Keys* was the first audio-tape training program ever endorsed by *Fortune* magazine. His new audio program, *The Art of Spiritual Leadership in Business*, was released by Sounds True Inc. in 2003.

William has also published over two dozen articles, been quoted in *Fortune* magazine and the *U.S. News & World Report*, and interviewed on *PBS* radio and *CNN-TV*. As a co-founder of the Global Dharma Center, he has expanded his focus to include the emerging practice of spiritual-based leadership.

William has been a Guest Faculty member at the Stanford University Graduate School of Business, and he has consulted and delivered keynotes in countries such as: India, China, Japan, Singapore, England, France, Holland, Czechoslovakia, Canada, and the United States. His clients over the past 20 years have included corporations such as:

AT&T, Charles Schwab, Chevron, Ciba Geigy, Compaq, Disney Institute, Dow Elanco, DuPont, Eli Lilly, Exxon Chemical, Hewlett Packard, IBM, Kraft Foods, Levi Strauss, Marion Merrell Dow, Monsanto, Motorola, Nike, Northern Telecom, Philips Electronics, Pillsbury, Pizza Hut, Procter & Gamble, Samsung, Searle Pharmaceuticals, Shell Canada, Silicon Graphics, Taco Bell, and 3M.