This paper was accepted by the 14th Annual International Deming Research Seminar for presentation on February 26, 2008 at Fordham University. Unfortunately, at the last minute I was unable to attend the Seminar.

The paper is a work in progress and I would welcome comments and/or dialogue with fellow In2:InThinkers as I continue to explore these ideas.

DEMING AND PEACE
author: Karl Haushalter
Optimization Works - phone (310) 373-7976, fax (707) 238-1417, email optimize@aol.com

Abstract

The aim of The W. Edwards Deming Institute is to foster understanding of The Deming System of Profound Knowledge ("SofPK") for the advancement of commerce, prosperity, and peace. The focus of this presentation is the application of Deming's SofPK as a roadmap for Spaceship Earth to get out of its crisis, create a world that works for everyone, and achieve peace.

Introduction

What did Deming mean when he opened every seminar I attended with

Why are we here?
Aim To have fun
To learn
To make a difference

I used to think that he was only talking about the seminar - I now realize that the question is a fractal and it applies to a meeting or seminar, to why I am at my company, and all the way up to why I am on Spaceship Earth. Likewise Deming's Theory is a fractal applying from small scale projects all the way up to the world working for everyone, peace, and the survival of Spaceship Earth.
I have been studying Deming's System of Profound Knowledge for over 20 years and just realized in the last three months that it actually could provide guidance beyond industry, government, and education. **Deming's System of Profound Knowledge is a roadmap for Spaceship Earth to get out of its current crisis** - to create a world that works for everyone, peace, and the survival of Spaceship Earth.

It was as if I was studying a caterpillar and never saw the scenario butterfly. What takes the time in learning is not getting it. A butterfly can't fly unless it goes through the process of getting out of the cocoon, which strengthens its wings, so that once it get out it is able to fly. It is through strengthening my understanding that I have these new insights.

This paper will cover why we are here (to have fun, to learn, and to make a difference), purpose, key points of Deming’s SofPK, Toyota's application of SofPK, my inspiration for this project, some results from my research so far (this is a work in process, not a finished project), and my current conclusions.

**Why Are We Here - To Have Fun**

For me having fun is:

- Just being - being husband, being Grandpa Karl, being present
- Playing - being spontaneous
- Making a difference - being fully engaged in worthwhile endeavors - there are important things to be done.

Why is fun important? - the BIG why in my experience:

- When having fun one is almost always much more creative
- When laughing one is more open to learning - it is very hard to resist when laughing
- Fun provides energy.

**Why Are We Here - To Learn**

R. Buckminster Fuller ("Bucky"), an American visionary, designer, architect, poet, author, consultant, inventor, and "Grandfather of the Future," said the function of humans was to learn and veritas which means "progressively minimizing the magnitude of our veering to one side or the other of the star by which we steer, whose pathway to us is delicately reflected on the sea of life . . ." (1).

At the American Society for Training and Development's 1992 Conference Peter Senge, the author of *The Fifth Discipline*, gave a speech about learning:

Learning is about the enhancement of our capacity for effective action - i.e. "I know how to walk" and "I know a little bit about how to be a friend." Human beings are designed to learn, there is a deep and abiding hunger in all of us to live our lives as learners, to continually enhance our capacity to create the types of things we really want to create (i.e. the relationships we want, the impact at work we want, the world we would really like to live in). Unfortunately, the predominate institutions in our culture are about controlling, not learning. Deming is right, the destruction does start with toddlers and what is being destroyed is our hunger for learning.

Nowhere in the world is the American system of management seen as being preeminent. Increasingly we are seen as out of touch. Great question - What happened to our passion for learning? Edward Hall said "The
drive to learn is more basic than the drive to reproduce." It starts earlier in life and lasts longer. The first years of life are all about learning.

Thus learning enhances one's ability to take effective action and make a difference.

**Why Are We Here - To Make a Difference**

How do you start to make a difference? You act. Where does one start to make a difference? "Where ever you are" - Werner Erhard in his famous est seminar.

Part # 4 of Deming's SofPK says people are "intrinsically motivated, want to do a good job, contribute, and make a difference."

Why is striving to make a difference important? (the BIG why):

- Deming said that transformation is everyone’s job
- Even small changes can make a big difference.

We are all here for a reason. Having fun, learning, and making a difference are all intrinsic and important parts of being human.

“\[\text{This is the true joy in life, the being used for a purpose recognized by yourself as a mighty one; the being a force of nature instead of a feverish little clod of ailments and grievances complaining that the world will not devote itself to making you happy. I am of the opinion that my life belongs to the whole community and as long as I live it, it is my privilege to do for it whatever I can. I want to be thoroughly used up when I die, for the harder I work the more I live. I rejoice in life for its own sake. Life is no "brief candle” to me. It is a sort of splendid torch which I have got hold of for the moment, and I want to make it burn as brightly as possible before handing it on to future generations.}\]

George Bernard Shaw

**Aim or Purpose**

Deming said "a system must have an aim" and "the aim must include plans for the future" (2). Having an aim is a fractal that applies to me as an individual, to companies and other organizations, and even all the way up to Spaceship Earth.

Deming's purpose was to serve mankind by advancing commerce, prosperity, and peace. Dr. Deming was an example of what one man can do - these are my observations, not confirmed by him:

In my experience W. Edwards Deming was a very caring individual - the best personal example was back when I was taking his courses at NYU and I hadn't been there for five or six weeks (my pattern was once every three or four weeks and we would have lunch together) he called to ask if I was OK.

In my experience W. Edwards Deming was also a great listener - he was hard of hearing the years I knew him - he would lean forward, cup his ears with his hand to help him hear, and he just listened to you (the only person in my experience who listened as intensely as Deming was Werner Erhard). Dr. Deming also asked great questions and loved dialogue (the exploring of ideas from many perspectives).

In my experience W. Edwards Deming was a great life long learner - two phrases I heard him say over and over again were: "I want to learn too" and "Can't I learn too?"

In my experience W. Edwards Deming was a very good observer - he could see what was going on in an organization.
I believe, as Bucky described in "Mistake Mystique (3)," that Deming "responded and conformed only to his own most delicately insistent intuitive awarenesses of what the truth seemed to him to be based on his own experiences and not on what others have interpreted to be the truth."

Deming clearly was a Positive Deviant - he had no respect for the prevailing style of management in America and for what was being taught in our business schools. He spent the last 50 years or so of his life trying to transform the way most managers think. It wasn't easy for him as there was very little agreement that he was right - those "in-the-know" disagreed - that was his life as a revolutionary.

And in my experience the essence of Deming was to serve mankind by advancing commerce and prosperity - he had a vision of a better world - a belief that together, with humility, we can and will make a difference in the quality of life for everyone.

In my opinion his passion to make a difference was what drove him and I think that helped keep him alive as he wasn't willing to stop working on his vision, teaching his last four day seminar just ten days before he passed at the age of 93.

R. Buckminster Fuller (Bucky) - another example of what one man can do:
Bucky's purpose was to answer the question "How do we make the world work for 100% of humanity in the shortest possible time through spontaneous cooperation without ecological damage or disadvantage to anyone?" (3).

Bucky was an American visionary, designer, architect, poet, author, consultant, inventor, and referred to as "Grandfather of the Future." Throughout his life, Bucky was concerned with the question "Does humanity have a chance to survive lastingly and successfully on planet Earth, and if so, how?" (5) Considering himself an average individual without special monetary means or academic degree, Bucky chose to devote his life to this question, trying to find out what an individual like him could do to improve humanity's condition that large organizations, governments, or private enterprises inherently could not do - that was Bucky's being.

"Something hit me very hard once, thinking about what one little man could do. Think of the Queen Mary - the whole ship goes by and then comes the rudder. And there's a tiny thing at the edge of the rudder called a trim tab. It's a miniature rudder. Just moving the little trim tab builds a low pressure that pulls the rudder around. Takes almost no effort at all. So I said that the little individual can be a trim tab. Society thinks it's going right by you, that it's left you altogether. But if you're doing dynamic things mentally, the fact is that you can just put your foot out like that and the whole big ship of state is going to go. So I said, call me Trim Tab" (6)

- Bucky

Fuller saw being the trimtab as a powerful metaphor for individual leadership: small, strategically placed interventions can cause profound change.

Purpose provides a context - people need to understand why they are doing something ("the BIG Why") - to paraphrase Nietzsche (a former prisoner of war) - "Given a BIG enough why, one can absorb any how."

Abraham Maslow introduced a model of psychology called Maslow's Needs Hierarchy that has become very well known in the field of psychology, management, and other human sciences. It describes six developmental stages based on what Maslow calls human needs (7). At the top of Maslow's Needs Hierarchy is self-actualization - attaining one's full potential as a human being in the world - seeking and expressing justice, wisdom, concern, and creativity - and self-transcendence which includes leaving a legacy - I believe these are human needs - it is important for one to define one's purpose in order to reach one's fullest potential.
What's your purpose? Do you have a personal mission statement?

The purpose of my company, Optimization Works, is to help companies and other organizations put Dr. Deming's System of Profound Knowledge to work and, thus, bring quality to life.

**More re My Purpose**

In the late 70's John Denver started my journey of thinking deeply about peace, humanity, and Spaceship Earth - the most impactful was his introduction to and the song "I Want To Live" now available on the album "Live at the Sydney Opera House":

> It is a very interesting time in the history of life on the planet earth - there are decisions being made and actions being taken which are going to affect not only our lives but the lives of all future generations - in fact the potential of life itself on this planet.

I think that it is critically important that whatever occurs, that it is an honest and true reflection of who we all are as human beings. Whether the struggle is to end hunger in the world, or to stop the senseless slaughter of the great whales, to disarm the nuclear bomb that hangs over all of us, or to preserve the right of any and all people to their natural heritage.

The responsibility is ours - the time is now . . .

I was really moved by John Denver's thinking and his songs. Reflecting back I put thinking deeply about the world working for everyone and actually doing something about it "on the back burner" because (1) it seemed so overwhelming, (2) I figured Spaceship Earth would at least last my lifetime, (3) I didn't think I could make a difference, (4) it was someone else's job, and (5) I was busy and had to live my life (do my job, etc, etc).

Then on 09-11-01 terrorists blew up the World Trade Center and destroyed the Italian Restaurant where Dr. Deming and I frequently had lunch on Mondays before his class at NYU. This awakened me to a problem on Spaceship Earth that I thought couldn't / wouldn't effect me - I was wrong in my thinking.

On 03-10-03 my granddaughter was born and all of a sudden the question of the world working for everyone and Spaceship Earth getting out of its crisis took on new meaning for me and my thinking intensified.

My purpose now is to optimize me and help optimize my family, my larger o'hana (Hawaiian word one's larger family), my clients, as many in industry, government, and education as I can, and Spaceship Earth. This will involve getting as many people as I can to see Deming's System of Profound Knowledge as a roadmap for Spaceship
Earth to get out of its current crisis and start using SofPK as a lens to first understand and then optimize Spaceship Earth.

Deming's System of Profound Knowledge (Deming's Theory)
(based on Deming's The New Economics for Industry, Government, Education)

The overarching point of Deming's System of Profound Knowledge (SofPK) is that management's job is to optimize the entire system over time. SofPK consists of four parts, each of which impacts the other.

Part #1 - Appreciation for a system
  • It’s important to realize that a system is a network of interdependent components (activities or processes) that work together to try to accomplish the aim of a system.
  • You need to understand the interdependencies of the system - how one component affects the others.
  • Deming said that 94% of our troubles and possibilities for improvement belong to the system, and you can only get what the system will deliver (so don’t blame the people).

Part #2 - Theory of Variation - use data to guide action
  • Variation happens, but it is important to shrink variation - reducing it almost always reduces costs. A stable system is a predictable one.
  • It’s important to recognize variation and distinguish that which is special cause (not part of the process) and common cause (part of the process).
  • Use data and statistics to show patterns and types of variation so you can more effectively manage them.

Part #3 - Theory of Knowledge
  • Importance of theory - a way of thinking leads to way of doing.
  • Everyone needs to hold on a little looser to what they know in order to be open to learning.
  • There’s a need for working and operational definitions so that information is definite and not relative.
  • Use the Plan Do Study Act (PDSA) cycle of learning.

Part #4 - Psychology
  People want to contribute and do a good job - it’s important to tap into their intrinsic motivation (self-esteem, dignity, and desire to learn).
  • Drive out fear by building trust and providing leadership.
  • Recognize differences in people and use such differences to optimize.

Deming's Theory As a System - Deming said to use the System of Profound Knowledge as a lens to first understand and then optimize a system. Each part is necessary, interrelated, inseparable, and together synergistic.

I now believe Deming's System of Profound Knowledge also provides a lens through which to understand and optimize Spaceship Earth. The overarching point, the four parts, and the fact it works as a system all seem to apply based on my experience and the research that I have done so far (although I haven't found anyone who has written specifically on this point). I am going to continue to think about and research "By What Method?" - how specifically can Deming's System of Profound Knowledge impact the world working for everyone?

Resources I have identified so far in this effort include John Hunter's www.curiouscat.com, the WEDI website, the Deming Electronic Network, and Deming's two books The New Economics for Industry, Government, Education and Out of the Crisis - see Appendixes A and B.

Toyota - An Example of the Power of Deming's Theory
The best example of the power of Deming's Theory (Deming's System of Profound Knowledge) is Toyota - from the Toyota website (8):

Since Toyota's founding, our fundamental mission has been to contribute to society by creating value, primarily by manufacturing high-quality automobiles and providing related services. The company's seven guiding principles, adopted in January 1992 and revised in April 1997 support that mission:

1. Honor the language and spirit of the law of every nation and undertake open and fair corporate activities to be a good corporate citizen around the world.

2. Respect the culture and customs of every nation and contribute to economic and social development through corporate activities in local communities.

3. Dedicate ourselves to providing clean and safe products and to enhancing the quality of life everywhere through our activities.

4. Create and develop advanced technologies and provide outstanding products and services to fill the needs of customers worldwide.

5. Foster a corporate culture that enhances individual creativity and teamwork value, while honoring mutual trust and respect between labor and management.

6. Pursue growth and harmony with the global community through innovative management.

7. Work with business partners and research and creation to achieve stable, long-term growth and mutual benefits, while keeping ourselves open to new partnerships.

Toyota's managerial values and business methods, based on these core principles, are known collectively as the Toyota Way. The Toyota Way is an ideal and a guiding beacon for the people of the global Toyota. It defines how the people of Toyota perform and behave in order to deliver Toyota's values to customers, stakeholders, associates, business partners, and the global community. The two pillars of the Toyota Way (9):

I. Continuous improvement

1. Challenge - we form a long-term vision, meeting challenges with courage and creativity to realize our dream.

2. Kaizen "continuous improvement" - we improve our business operations continuously, always striving for innovation and evolution.

3. Genchi genbutsu "go see for yourself" - we go to the source to find the facts to make correct decisions, build consensus, and achieve our goals.

II. Respect for people

4. Respect - we respect others, make every effort to understand each other, take responsibility, and do our best to build mutual trust.

5. Teamwork - we stimulate personal and professional growth, share opportunities of development, and maximize individual and team performance.

What if all companies thought and acted the way Toyota does?

Inspiration and Guidance
To provide inspiration and guidance for my new journey I am going to reconnect / revisit with the people who have been most influential in my life - John Denver, Werner Erhard, Marshall Thurber, Bucky, Tony Robbins, Tom Crum (an Aikido Master - see appendix A), and W. Edwards Deming.

I also will have as my theme "The Job's Not Done!" - I borrowed this picture of Spaceship Earth:

![Spaceship Earth](Source: John Denver's Windstar Foundation)

**Research in Progress** (and resources identified so far)

In order to apply Deming's SofPK to making Spaceship Earth work successfully, I first wanted to get an appreciation for the world system and understand its interdependencies. I started by examining some of the most serious challenges the world faces today.

**Bucky's thinking:**
As Bucky said, “We are not going to be able to operate our Spaceship Earth successfully nor for much longer unless we see it as a whole spaceship and our fate as common. It has to be everybody or nobody” (10). Until we view the world as a whole instead of through the lens of our own agenda, we can’t expect things to get better.

**The nuclear bomb that hangs over all of us:**
On August 6, 1945 the Atomic bomb made its international debut and the world became all too aware of the level of destruction possible through the execution of human imagination. Now the nuclear bomb is more than just a card the United States holds - states such as India, Pakistan, and North Korea have gathered nuclear capabilities and it is difficult to tell who else may hold such technology - rumors surround Israel, Iran, and others. Weapons could be up for grabs to the highest bidder and available to anyone with financial means.

**Terrorism:**
Since 9-11, terrorism has a new focus on the world stage. It seems that previously acts were committed by numerous small bands of rebels or activists in small sections of the world, mainly for political gain or to be recognized. Terrorist networks now have their own armies, their own militias, millions upon millions of funding, and have changed the way we will fight our wars forever. Force doesn't work against a network.

*Country Reports on Terrorism* compiled by the National Counter Terrorism Center (NCTC) and published by the Department of State estimates 11,153 incidents of terrorism and 74,217 people killed as a result of terrorist acts in
2005 (the NCTC only includes non-combatants in its terrorism figures). These numbers are even higher for 2006. 2007 results will not be out until April of this year, but the numbers are in an upward trend and these numbers don’t even consider the increasing numbers of troops being killed in the “War on Terror” every day.

**War is not the answer:**
Bucky said that “war is the ultimate tool of politics” (11). War has been long used as an instrument of foreign policy, excused under the condition of national threat, or founded on the basis of humanitarian outreach. Where people cannot or refuse to compromise, war has become the inevitable answer. Rather than searching to understand the root causes of situations, force is used. Also United States' struggles in Afghanistan and Iraq demonstrate that force (war) cannot beat a network.

**What the world wants:**
The results of peace could be staggering - a 25% reduction in world military budgets could eradicate hunger and poverty on the planet - both those in extreme poverty and also those living in moderate poverty (lack of clean water, sanitary facilities, basic health care, decent shelter, education) - in total approximately 40% of the world's population (12).

**Peace is not the absence of war:**
Peace is a positive thing that you can produce. The problem right now is the effort to produce peace is a national effort, rather than an international effort, because of the gap in responsibility at the international level (13).

**World hunger:**
The Hunger Project is a global, strategic organization committed to the sustainable end of world hunger. They have pioneered low-cost, bottom-up, gender-focused strategies in each region where hunger persists. These strategies mobilize clusters of rural villages to create and run their own programs that achieve lasting progress in health, education, nutrition and family income (14).

**Global warming:**
In his Nobel Lecture on December 10, 2007 in Oslo, Al Gore warned that “we, the human species, are confronting a planetary emergency. . . the climate crisis is not a political issue, it is a moral and spiritual challenge to all of humanity.” Gore stated “we must understand the connections between the climate crisis and the afflictions of poverty, hunger, HIV-Aids and other pandemics. As these problems are linked, so too must be their solutions. We must begin by making the common rescue of the global environment the central organizing principle of the world community.”

**Disregard for the environment** (some recent examples I am aware of):

- Senseless slaughter of the great whales - Japan still exploits a loophole in a 1986 international moratorium on commercial whaling to kill the whales for what it calls "scientific research" while admitting the meat from the hunt ends up on dinner plates. Japanese whale hunts see about 1,000 of these creatures slaughtered each year (15).

- U.S. Navy sonar training off the coast of California - environmentalists and the U.S. Government have been battling over the Navy's use of sonar which is potentially harmful to whales and dolphins in training exercises off the California coast (16).

- Hawaii Superferry - in Hawaii there is a major battle between environmentalists (including the Pacific Whale Foundation, surfers, and native Hawaiians) and Hawaii Superferry over, among other issues, the potential of killing humpback whales.

**Preserving the right of any and all people to their natural heritage:**
This is a major problem in many parts of the world. I personally feel a connection to the Native Hawaiian issue - preserving the rights of Native Hawaiians to their natural heritage.

**A global energy grid:**
The Global Energy Network Institute ("GENI") was founded in 1986 by Peter Meisen to investigate Bucky's idea that a global electric energy grid was the number one priority to solve many of the world's most pressing problems. GENI conducts research and educates people about the critical viability of the interconnection of electric power networks between nations and continents. GENI focuses on linking renewable energy resources around the world using international electricity transmission. GENI’s research shows that linking renewables between all nations will mollify conflicts, grow economies, and increase the quality of life and health for all. The benefits of this sustainable world power solution include: decreased pollution from fossil and nuclear fuels, reduced hunger and poverty in developing nations, stabilized population growth, increased trade, cooperation and peace (17).

Conclusions

Deming's System of Profound Knowledge applies beyond industry, government, education to Spaceship Earth - it is the roadmap for Spaceship Earth to get out of its crisis, have the world work for everyone, and peace.

I will take action - I will start by:

- Doing Al Gore's list of ten easy things to do to help reduce Carbon Dioxide emissions (18).
- Buying reusable shopping bags - it is estimated that over 14 billion plastic bags are used in the U.S. each year (19) and it takes 12 million barrels of oil to produce them (20). Plastic bags don't biodegrade, they photodegrade - breaking down into smaller and smaller toxic bits contaminating soil and waterways. Paper bags use natural resources and recycled paper is better used for something else.
- ECO-friendly-ing my house.

I will continue researching the topics identified above.

I will start where I am by making speeches, writing a book, and using Network Science to geometrically increase my impact.

Everyone can make a difference - please join me - if not us, who? - you can be just another passenger on Spaceship Earth or you can choose an aspect of Spaceship Earth for which you have a passion and have fun, learn, and make a difference!

"Miracles are to come. With you I leave a remembrance of miracles: they are by somebody who can love and who shall be continually reborn, a human being; somebody who said to those near him, when his fingers would not hold a brush 'tie it into my hand' " - e.e. cummings

Footnotes

1 - "Mistake Mystique" from Intuition by R. Buckminster Fuller, pages 91 to 100, 1970
3 - "Mistake Mystique" from Intuition by R. Buckminster Fuller, pages 91 to 100, 1970
4 - http://www.geni.org/
5 - Bucky at The Future of Business Conference, 1981, Kirkwood, CA
6 - "Leadership by Design: How One Individual Can Change the World; Leadership Principles of Buckminster Fuller" by Medard Gabel and Jim Walker, 2006
7 - "A Theory of Human Motivation," Psychological Review 50 by A.H. Maslow, pages 370 to 396
Appendix A - Favorite Websites

2. Buckminster Fuller Institute - go to http://www.bfi.org/
5. The Deming Electronic Network - go to http://deming.eng.clemson.edu/pub/den/
7. The Pacific Whale Foundation - go to http://pacificwhale.org
9. ChaosOver - a powerful process for improving one's personal productivity - go to www.chaosover.com

Appendix B - Other Suggested Readings

2. "Time-and-Motion Regained", HBR Jan-Feb 1993 by Paul S. Adler
7. Out of the Crisis by W. Edwards Deming
10. The Toyota Way Fieldbook by Jeffrey K. Liker and David Meier
11. Toyota Talent: Developing Your People The Toyota Way by Jeffrey K. Liker and David P. Meier
12. The Future of Management by Gary Hamel
14. What Were They Thinking? - Unconventional Wisdom About Management by Jeffrey Pfeffer
15. The Difference - How the Power of Diversity Creates Better Groups, Firms, Schools, and Societies by Scott E. Page
16. Leadership by Rudolph W. Giuliani