Curious Cat
Management Improvement Institute

The Future of Quality
By William W. Scherkenbach

William Scherkenbach is internationally recognized as one of the world's foremost authorities on the subject of quality and its implementation. Theory without action is useless. Action without theory is costly. Bill has the rare combination of both state-of the-art theory and the experience of applying it in the real world.

He was in the very privileged position of learning from and working with Dr. W. Edwards Deming in the last 25 years of his life. He was with him on over 1000 meetings, including at least 50 four-day seminars, with leaders of industry and government all over the world.

> *"He was my student, and there's none better in the world... It takes a little ingredient called profound knowledge, and he's got it."*
>
> *W. Edwards Deming*

This paper was written in 1999, projecting how quality would evolve by 2020.

Address for this paper: ccmii.org/files/ws/future-of-quality.pdf

William Scherkenbach and the Curious Cat Management Improvement Institute have made available a large number of additional files.

Find all the files:

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If you use the process model as your underlying theory, then this question could apply to material, equipment, methods, environment, and people. But it seems focused on equipment (technology) [Yes, I know the definition of technology is "applied knowledge"]

- First of all, long before 2020 you will have to drop the A in ASQ. Information Technology (IT) is rapidly reducing cycle time and cycle space of all forms of communication. Professional societies will be trans-national, like business and now even governments.

- Knowledge as well as information will be a salable product on the internet, or whatever they call it then. Expert systems will be in virtual reality form. But knowledge can be sabotaged by a tabloid approach to internet broadcasting. There will need to be both immediate and refereed programming and the user needs to know the difference.

- Both pervasive computing and deep computing will be merging. Scotty will indeed be able to say "Computer..."

- People will have more time for and indeed need venues for their Physical, Logical, and Emotional improvement. The venues will be immediate and virtual. Exercise, Education, and Entertainment will all benefit from the unlimited speed and bandwidth that everyone will have.

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- Technology again, heh? A number of years ago, we saw that engineers and other professionals would not use quality tools (simple or advanced) unless they were bundled into their workstations. SQ needs to work with Engineering, Accounting, A&E, Management, Medical, Aerospace, Computer, Education, etc., etc., etc., professional societies to make sure that standards for their automation include provisions for our tools.

- Having said that, quality professionals themselves will need knowledge and skills and motivation for three areas: Quality Procedures, Quality Knowledge, Quality Promotion. My CD-ROM "Breakthrough Performance" should explain it better. (Chapter 4, page 186-187) Briefly, they stem from Physical, Logical, and Emotional frequencies that are a part of every major change.

- Compatibility will still remain an issue. Even though technology exists today to make it a non-issue, business decisions and getting people together will still prevent plug-and-play. Quality professionals could be heroes if we could mitigate this universal problem.

- The word "professional" sounds nice, but the government does not recognize us as professionals. That term is reserved for lawyers, doctors, accountants, and PE's. I think that ASQ should lobby to make Quality Professional really mean something with the corresponding tax and regulatory recognition. The word professional is thrown around but really doesn't mean anything.

- If you want a podium, you will have it. Everyone will be able to broadcast his/her ideas. We will live in an electronic Speaker's Corner.

- There will be an explosion of artistic expression with the availability of virtual and 3D software. I have found that animations and videos make it easier to teach complicated and interdependent concepts.

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3. What skills will the quality professional of the future need to have as an "exceptional personal competence?" What skills will no longer be needed by quality professionals?

Again, I would augment the Physical skills, with Logical knowledge, and Emotional attitudes, values, motivation.

- Certainly, every tool that exists today will be automated, or virtual reality, or available in expert system form, or if we do as I think must be done, available to all because it is built in to their job workstations and entertainment funstations and exercise sweatstations.

- Many of the "old" tools were developed because of lack of computing power. Some of them are improved by technology, others will not be. Rational subgrouping comes to mind and what Deming called analytic situations.

- Any quality professional should know how to access and correctly use the tools. This is certainly not true today where gaggles of quality professionals don't have a clue as to the appropriate use of the tools. The president of GM once asked me my opinion on a particular "new" tool. My response was that it was no better or worse than the other tools we were not using in GM.

- Attitudes and motivation will be little impacted by technology. (Except for the happy geeks who revel in new toys.) (Me, for instance.) This means that conflict resolution and indeed taking pride in your work will be essential competencies.

- In a similar thought, if systems are not crash-proof or fail-safe, a lot of people will be inconvenienced and downright mad. We hear "the computer is down" too often. We're mad as hell and not going to take it any more.

- I have used animated data to aid decision-makers. Right now, people look at data in a chart or graph. We try to portray mulitdimensional arrays with static medium. 3D holograms would be best, because they would include 3D space and one D of time. I have made animations of years of monthly graphs and played them back so that management can get a better look at how the graphs change over time. It is sort of like the satalite view of the weather. Its a series of snapshots of the clouds moving and it helps you forecast better.

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- Again, unless the principles are built in to the technology, the masses will not use them. In other words, unless MTV and Emeril start using them, the masses won't. BTW all entertainment, learning, and skills development will be available on demand by the individual.

- This means that SQ should develop the "hyperlink experience" to fill in the blanks when MTV announces their latest poll. People will be able to click or verbally say "whoa, dude tell me more about why that "sensory experience" was rated number one. Give me some background. Where will it be next week. How many of my friends will have to "experience" to get it to stay number one?" Stuff like that.

- Or when Emeril goes through the process of preparing a meal. SQ must provide the "hyperlink experience" to explain the interactions not only between ingredients but between the ingredients and the consumers. Cooking is filled with variation...Bam!   Stuff like that.

- There will be another baby boom in the next 10-15 years as the boomer's kids have kids. This means that we have an opportunity to really impact the young 'uns. Sesame Street will still be around, but like any other "experience" it will be hyperlinkable. Work with them to provide the learning background on the basics of quality as it impacts a child's life. Real opportunity to expand Koality Kid. Circumvent the schools, too political.

- As I look around, (I have been on a commission for Workforce2000) it still is a whiteman's game. As we lose the A in ASQ, we will need to be more culturally responsive. This even though the world will be going more and more to English as the primary language of communication.

- Push technology is called spamming today. Because of the information overload, there will be powerful filters on what info gets to you. i.e. only that which you want. In other words, pull technology. SQ must develop a strategy to be bundled to be included in the filter algorithms and to be at least a category in the pull info programs.

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- The Annual Quality Congress must be rethought. I attended to network and visit with folks that I hadn't seen in a year. Technology will negate that need. I will be able to communicate via hologram communication with any that choose to walk and talk with me.

- Certainly, before the 20 years are up, people who prefer the tactile feel of books and newspapers will be able to use new paper-like screens to carry with them to read. This means that all subject matter must be in electronic format for downloading however our professionals want it.

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Theory:

Quality professionals, who are the backbone of SQ, have a very limited amount of time that they can devote to volunteer work. This still will be true 20 years from now. Many of us are members of multiple professional societies, each eager for our limited time.

Question:

How can we maximize professional growth as well as the practice of the profession while not burning out the professional? Indeed, how can we do this and still have the professional's private life flourish?

Answer:

The answer lies in the two main tenets of the SQ, develop the professional and practice the profession. Historically, the Sections developed and certified the professional while the Divisions practiced the profession. My vision of the future is to structure SQ to focus on the development of the Quality professional. While the practice of the profession would be the focus of other professional societies.

Develop and certify the Quality Professional. I see the SQ's activities nurturing the professional development of its members. This means that SQ should be at the cutting edge of theory of Quality. Fellows should be the source of the theory, but history has shown that the great ideas come from young folks, people new to the field, or experts in other subject matters. Remember, the greatest barrier to the advancement of knowledge throughout history, has not been ignorance. It has been the illusion of knowledge.   (This means that there must be a mechanism to infuse new ideas in the august body of fellows.)

Practice the Profession of Quality. As far as the practice of the quality profession goes, it should be done by professional or industry specific organizations. All SQ Divisions would be "given" to other professional societies, licensed or accredited by SQ. For instance, the Auto division would fold into the Society of Automotive Engineers, the dominant society in the auto industry. People would not be split between SAE and SQ meetings with both societies suffering.

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As far as I can tell, most every other professional society have Quality conferences or have Quality divisions or sections. With the help of SQ national, the Divisions would affiliate with the society that they think most appropriate to the practice of their profession. Just off the top of my head the Divisions would go to:

SQ Divisions	Professional organizations
Quality Management	American Management Association, or The Conference Board
Aviation, Space & Defense	??
Automotive	Society of Automotive Engineers
Chemical and Process Industries	Society of Chemical Engineers
Electronics	IEEE
Textile and Needle Trades	??
Food, Drug and Cosmetic	??
Reliability	IEEE
Inspection	NDT&E
Biomedical	??
Energy and Environmental Quality	??
Statistics	ASA
Human Resources	??
Software	??
Customer-Supplier	Survey/Demographics
Service Industries	??
Measurement Quality	??
Health Care	AMA, ??
Quality Audit	ISO
A&E	A&E
Education	NEA, AASA

The Divisions can flesh out which specific societies that the Divisions will ultimately affiliate with. My purpose again, is to find a way to not split a quality professional's time between many societies. This also would cut down on the number of redundant and competing conferences that our varied societies sponsor.