Believing in the power and the inherent qualities of individuals and teams, solutions upwards of global and even out of this world (i.e. global levels and beyond) will generate greater levels of fun and value for all through the innovation of the architect.

SECTION IV

THE ARCHITECT

Simply stated, the architect for ensuring inherent quality is you. In fullness the architects are all who help to produce or are touched by software, technology, and information. This includes related professionals and consumers who essentially drive quality within the evolution.

SECTION V

THE EVOLUTION

The evolution of software, technology, information, and related resources is a process that is still occurring. It lives within all and all can partake. Increasingly this has, will, and must continue for all time to be the case. As more and more people become part of the quality journey, creativity will continually increase, loads will increasingly become lighter, the whole will increasingly become greater than the sum of its parts. As each revolution is born, forward leaps are enabled.

From an inherent quality perspective, the notion has existed for centuries. In modern times it is also associated with ISO (e.g., the degree to which a set of inherent characteristics fulfills requirements). As we move towards perfect vision leap year 2020, the evolution will take us to unimagined heights and depths. Over the past decade quality has increasingly been embedded, made more innate, and elevated from various perspectives. An example of this can be seen within technology products and services, within frameworks, and within "green" and other socially responsible initiatives. Evolving, inherent quality is (and will continue indefinitely to be) for the betterment of all. Overall quality is an infinite continuous movement. Making quality more inherent, or occurring more inherently, is a prevalent theme that is found within active improvements for and by software, technology, and information professionals—and for and by others, such as consumers who recognize the related advances and impacts to quality of life. In the decades, centuries, and millenniums of the future, people will strive to make improvements which will make quality, value, excellence, profit, and simplicity increasingly inherent. This will reduce risks, improve outcomes, and enable greater levels of productivity, fun, harmony, profitability, happiness, love, and joy.

In 2007 thanks to the steps of pros and public the words just read will start to be clearer to many. By 2010, however, many more people will begin to understand, with deeper clarity, thanks to many contributors and increased awareness. Between 2011 and perfect vision leap year 2020, for many, the words will start to be hindsight and associated with the way of personal and business life. This

is a prediction, but not science fiction, as there is sufficient history and an existing body of evidence to support a finding that the quality movement is and will remain strong. In fact, the coming waves and circles of quality will be far greater than any experienced before. Welcome to a bit of the world of software, technology, and information within which the inherent qualities of products, processes, services, and people do, and will continue to, generate wealth and infinite possibilities. In the present and future, attendees at summits will as often be from business units as from IT. In the years to come, businesses will demand an entirely new mix of expertise. By 2009 there will be millions of Internet phone lines in use. By 2010 the need for IT resources in general will increase, business skills and IT skills will merge more, demand for traditional IT expertise will decrease, and demand for business process and relationship management will double.

Building on a quality past the notion of inherent quality applies to the present, and contributes to shaping the future, by advocating a continual need to reduce complexity and increase value-inherent by energizing professionals and consumers as worlds become more as one. Ensuring increasing value which is innate is an important mindset, principle, or philosophy, which advocates innovation and imagination and merging social responsibility, unity, diversity, and even spirituality. In this way, we meet, exceed, or drive rapid growth requirements from the edge of reason and with leaps of wisdom and faith, while operating business at the speed of present and futuristic rational collective thought.

In modern times there are already many examples of or for *making quality happen and evolve inherently or be increasingly inherent*. A partial list of examples follows:

- unification, consolidation, and elevation of software, technology, and information, which more innately builds quality in, up front and throughout, and drives towards such things as continued (i) embedding of harmonized frameworks and standards within easy-to-use lifecycle and everyday automation to enable greater levels of capability maturity, usefulness, and simplicity; (ii) alignment of disciplines, art, science, technology, business, academia, and so on, including industries, professions, and global consumers
- value that is within and throughout presentations and networking, and that is associated with forging innovative partnerships, achieving improved business visibility, pursuing relentless customer-oriented innovation, establishing forward-oriented leadership, leveraging technology to meet business objectives, and IT transformation, not only at the pace of market change, but at a pace that *leads* market change, and not only aligns IT and business, but makes them more united
- inverting the triangle to place the baseline of IT and the knowledge workers, and the consumers on top, and enable all to see that each of us can be part of something bigger than ourselves—that is a solution of solutions that continually brings improvement ideas to reality, as more and more minds start to optimistically give positive energy to each other, so creativity is ongoing and at progressively higher degrees

- the actions of many that eventually enable paradigm shifts beyond the mentality that says, *Sounds good; who is going to pay for the improvement?*
- enabling others to see that improvement pays for itself, that, in fact, quality is not a cost, but a saving, and value
- enabling greater opportunities for balance, simplification, harmonization, elevated information quality, polling, and sharing (e.g., with respect to matters such as proactive risk management)
- e-newsletters and embedded links to online articles that inform and contribute to simplifying, streamlining, and embedding governance and making it faster and easier to move forward to produce tangible results, while removing bureaucracy, creating a common language, and aiding navigation through options
- minimizing manual activity, elevating decisions, enabling greater accountability, and innately ensuring compliance, while proactively helping to manage embedded risks
- merging organizations and driving towards agility and fostering greater trust and collaboration, rather than the need for complex and frequent management, audit, and control activities
- giving and building positive energy (e.g., empower and embed fun; find and implement methods which save time, in order to permit more time for expanded on the job learning, so employees can prepare proactively for the next opportunity or role; create time for surfing, blogging, and other forms of growth and professional development that will make employees feel better about themselves and happier about the trust and freedom given to them by their employer; permit time

to pursue outside interests and passions which bring further energy to the individual, and both directly and indirectly bring positive energy back to the organization and onto the consumer; give positive energy to individuals and grow larger team spirit, while emphasizing intrinsic rewards and spreading optimism; show respect for the individual and recognize that all can provide value; inspire creativity and innovation; enhance drive away from less-than-interesting or non-profitable rework towards achieving excellence , especially the first time, in order to enable moving on to new opportunities more quickly)

- increased sharing, which helps drive greater collective wisdom, advocates higher purposes, inspires thinking and dreaming, and using imagination
- efforts which work toward instilling a common language and mindset in every facet, to drive financial and other positive returns that are for all, for everyone
- drives toward innovation, seeking to make the future better, and looking for and embedding the wow factors
- the fact that inherent quality is sought after by most organizations (although they may not formally state they are striving for inherent quality or even consciously realize that it is the case, many exhibit it within corporate and site names and within writings through usage of terminology such as inherent, intrinsic, pervasive, embedded, innate, inside out, in-built, built-in, integrated, simplicity, and other synonymous and synergistic wording; the fact remains that for many years many have used *inherent quality* and synergistic terms like *embedded* to describe the superiority of a wide variety of offerings)

- encouraging big-picture awareness and thinking, and promoting research and exploration
- initiatives which combine learning from the past and present with positive forward and open-minded thinking
- helping to uncover further, farther, higher to-be-discovered levels of excellence (albeit as example related to employee productivity, turnaround gains, workflow efficiency, enhanced customer satisfaction, and enhanced employee job satisfaction), and finding ways of refreshing, attracting millions, and embracing fun and new technology trends such as online entertainment
- something innately of value, which is more the source of the subject and object, and less laid on top to manage, control or compensate (e.g., a concept, software or technology which makes work easier or more enjoyable—or information that helps you see this; an innate characteristic that reduces or eliminates risks; an innate capability that increases flexibility, adaptability, interoperability, alignment, mobility, speed, ROI (return on investment) and VOI (value on investment); a documentation initiative that reduces and elevates the content associated with volumes of information; operational excellence achieved in an environment which recognizes that everyone has a stake in quality; operational excellence achieved without need for large quality or audit groups, and frequent activity from such groups; technology which prevents accidents or promotes a healthy planet; software which detects an event and triggers automation to eliminate manual processes; information that is reported more quickly,

accurately, and automatically that draws from multiple data sources and inserts intelligence; an inside look at how a leading security expert controls his company's critical infrastructure; when an average single query on Google gets a response almost instantly, although it reads hundreds of megabytes of data and consumes tens of billions of CPU cycles, and when the related architectural high performance clustered and fault-tolerant computing complexity is transparent to most; when an organization freely gives software, educational information, computers, and other technology to the youth of the world so they may learn and grow; when a unique nonprofit organization uses technology, knowledge, and passion to empower people with physical disabilities, and when the organization's end-to-end services assist clients so they can overcome barriers and enter the mainstream of society)

- a green building rating system that is an international standard for developing high-performance sustainable buildings
- a characteristic or attribute of: data, a product, a service, an individual, a method, a team, an organization, and so on. Something that can be seen as both: a component of result and as a key driving ingredient or catalyst. An example here of this duality might help. A prediction I made some time ago will be used as the example; however, note that within the prediction, inherent quality is both a driver and a resultant characteristic. Here is the example: value-driven advances in software and information technology quality, generated by talented software and information technology professionals for talented software and information

technology professionals, will be felt and seen by increasing incorporation of means for achieving capability maturity as an inherent quality of the enterprise's lifecycle technology, which, among other things, will inherently further enable progressive productivity, reductions to the cost of quality, and progressive means of automated continuous "enforcement, risk management, and compliance."

- when, as software and information technology professionals, we realize we must do our collective best to ensure means progressively exist to permit quality to become increasingly more inherent within that which we produce and in *how* we produce from various perspectives, including relative to products, services, processes, tools, frameworks, standards, and so on
- when, as global community, we realize that together we can continually evolve quality, so as to increasingly have betterment from various perspectives, including improved productivity, innovation, sales, savings, and return on investments
- when realizations grow to see that savings and positive ROI are intended outputs from a quality journey that must as well be inputs, as it is from ongoing R&D (and continuous improvement) reinvestment that further gains will be made
- showcasing and advancing professionalism, improving productivity, and bottom-line results
- improving safety, longevity, morale, business continuity, and customer satisfaction
- showcasing and advancing software and information technology professionals

- motivating and energizing each other towards increasing means of ensuring greater levels of inherent quality within professions and within a profession's products, services, tools, and innovations
- spreading awareness of exciting professions to the youth within high schools, so that related college, university and other programs will become filled to capacity, and so the future of professions will be enhanced by the quality of its future generations, and so the world is further progressively enriched by the quality and excellence produced by both the professionals of today and generations to come
- promoting the usage of frameworks, and helping to contribute to the study and improvement of frameworks
- promoting the usage of capability maturity concepts and helping to contribute to the study and improvement of capability maturity concepts, as well as capability maturity levels associated with individuals and organizations
- promoting software quality and, in general, information technology quality, to increasingly be more inherent, and to increasingly add higher levels of value—and helping to contribute, so that software quality and information technology quality will enrich our world and future generations, as well as today's individuals, teams, businesses, educational programs, and industries at large related to health and many other sectors
- promoting usage of lifecycle technology services and helping to contribute to the study and improvement of lifecycle technology services

- promoting usage of quality assurance-control and quality improvement-management—and helping to contribute to the study and inherent improvement of quality assurance-control and quality improvement-management
- promoting technological innovation, and helping to contribute to the study, selection, implementation, and continuous igniting of socially responsible and ethical technological innovation.

To these examples I add that the evolution of inherent quality contains and produces that which is honest, holistic, clean, good and ethical. This includes containing or producing decent tenets, values, principles, morals, and quality management systems. This includes containing or producing that which is service-oriented, customer-oriented, quality-oriented, and so on, as inherent quality is about complexity and simplicity being rolled into one. Furthermore, inherent quality is an enabler of flatter structures, game and virtual learning, sharing and collaborative two-way mentoring. Further evolving it is that which permits focus on what needs to be solved and which frees time of IT and other resources. It is empowerment, speed, reliability, accuracy, trust, and it is within the evolutions of all things that are positive.

In contrast, a few examples where more inherent quality is needed include…

- when there are fewer developers than there are resources managing and checking the work of developers; when developers do not test their work but

leave this for a separate group to do; when numerous business resources are called upon repeatedly for multiple test cycles

- when testing is primarily a manual process, and when the same test cases apply to each cycle, and no cycle addresses particular types of important tests
- when there are reoccurring system or application issues; when consistency can not be measured against standard operating procedures; when there is manual duplicate data entry; when a dropped call or noisy line occurs frequently; when thresholds met are an exception rather than the norm, and when numerous resources regularly do not proactively report that they will miss work or a target
- when costs are consistently over budget
- when wrongful accusations are made
- when data is not quickly, fully, and accurately restored
- when errors, crime, and corruption exist
- when war is thought to be the answer, and lives are lost
- when poverty exists, and a high quality of life is not available for all, and cures go unfound at length
- when the sustainability of life on our planet is at risk
- when processes do not promote fair and equal opportunities, and when there is untapped opportunity for enterprise integration of systems
- when inventory continues to grow and stockpile at the same time as there is a shortage of the items customers would like to purchase
- when a customer arrives at a retail store minutes before it is scheduled to open and the following happens: An employee of the store arrives basically at the same time; the employee walks right by without even saying hello,

and knocks on the window. An employee inside opens the door for the employee outside; neither acknowledges the customer. The door is relocked. A few minutes after the store is scheduled to open, the door is finally unlocked for the customer. It is not, however, swung open for the customer. The employee simply walks away.

There are many opportunities to make quality more inherent or occur more inherently. Thankfully, many people are starting to recognize such things and are taking essential action to make improvements in many respects, including relative to the experience a customer receives. When you think about the latter point, the experience for the customer, and ultimately the profits for the store, could be enhanced if a customer was permitted to enter the store early, or at least permitted to enter on time. It could also help to show simple courtesy by opening the door for the customer. In fact, it will also improve the customer experience and store profits if employees politely and respectfully acknowledge the customer (e.g., the employee outside could have been friendly and said a simple hello; the one opening the door could have smiled and said welcome, and begun to learn the customer's needs, and then help the customer secure the items he or she came to the store to purchase). The opportunities to make quality more inherent or occur more inherently, of course, extend well beyond the traditional retail storefront. As example, consider online sales, where there has recently been revolutionary progress, and where there remains tremendous opportunity for all to work more as one within the ongoing evolution to continually make things better.

In 2005-2006, online sales apparently represented billions and a 60+% increase. The quality improvements inherent to the evolution of software and technology helped enable this—so too did the quality improvements inherent to the evolution of information help to enable this. Meaningful information is now more easily and more immediately accessible, in increased volumes, to increased volumes. This is increasing awareness, educating, removing fear, and facilitating cultural paradigm shifts. This is increasing the opportunity to instill simple decent old-fashioned values and wisdom that work—concurrent with modern-day enhancements, such as improved speed and increased value (e.g., features are being translated more into benefits, so consumers can make decisions more on value, rather than price). In the modern world mass retail and information sharing is being enabled at any hour any day of the year, while progressively becoming more effective and cost-effective and while progressively ensuring greater value. In the modern times of the evolution, information technology can be found just about anywhere and in everything, for example, from a GPS in a rent-a-car to help the customer avoid travel delays, to voyages on and under water, into the sky, and actually out of this world. Yet when you look closer (as various professional associations and special interest groups do) it is not hard to see that more can and must be done. Now is the time for perseverance, unique blending, fun, and motivation. Now is the time for increasing levels of unified inherent quality. Now is the time for many to be Inherent Quality Advocates or Inherent Quality Solutions Architects. To become either is easy. Simply do what you can in a positive, ethical, and legal direction to help make quality continually more inherent or

occur more inherently, while challenging yourself and others to contribute to the evolution by walking the talk towards greater inherent excellence, and therefore by living in essence the quality speak found within quality's streets or dimensions. To be an IQA or IQSA means you are familiar with various elements of the evolution and do your best to promote, showcase, or build upon the work of others. This includes philosophers such as Aristotle, Rene Descartes, and John Locke, who have provided different facets of the definition of quality. This includes work done in the 1930s by Dr. Walter A. Shewhart, who gave birth to statistical quality control. This includes variations produced during and after World War II. As example, Deming, Joseph Juran, Armand V. Feigenbaum, Kaoru Ishikawa, Shigeru Mizuno, Shoji Shiba, Yoji Akao, and Genechi Taguchi, who provided additional perspectives including a context in which quality is germane, e.g., Total Quality Management (TQM) and Loss to Society. As an IQA or IQSA, you do your best to prevent loss to society and to contribute towards positive research and advancement from any number of perspectives, for example: (i) to help uncover, promote, or architect solutions containing **inherent qualities** (e.g., virtues, fun, and so on); (ii) to help pursue a particular hypothesis (e.g., that there are universal principles of creativity that are the basis for creative innovations which advance technology; it is beneficial to attempt to identify and codify principles so that they can be taught, to make creativity more predictable). As an IQA or IQSA you recognize that some people in the twenty-first century may believe the quality movement is a fad. You, however, see the reality: the movement is stronger and more innate than ever. As an IQA or IQSA, you are aware

that after the Second World War, and by 1975, Japan had applied American quality awareness training to make an astonishing and unique achievement: they began topping the world in quality and productivity. You realize that globally a progressive movement grew as organizations applied approaches to obtain certifications, awards, and quality gains. You know that by the '90s organizations were increasingly showcasing their ISO and other quality accomplishments. You know that Quality Management Systems then started to show creativity by being more company-specific, by better aligning with actual company needs, and by applying to varying degrees of scope that ranged from particular business units and specialty disciplines to entire company TQM. You know that, to show applicability, many organizations next began mapping ISO to their software and information technology divisions and applied usage of CMM. You know that in an attempt to improve, special auditors were created (e.g., ISO/TickIT). You know that as Microsoft embarked on creating and extending frameworks involving integrated processes and tools and add-ons, industry associations and other vendors went to work with software and IT quality and value in mind. Following the Y2K concerns, some considered quality was as a passing fad. Even today, many might say they feel the same way. They, however, could not be more wrong. What has, and is still materializing, is far greater, more inherent, pervasive, and global than the waves of quality experienced in the marketplace over the past decade. Boundaries that once existed are steadily fading. A new era exists as a result of the ongoing constant evolutionary and revolutionary progress by industry, consulting organizations, vendors, and individuals to

mature and ensure that quality is more embedded within the software and information technology profession. Numerous players and contributors have, in fact, joined the movement, and numerous personal certifications now exist and continue to grow, as do numerous options for organizations wishing to improve quality and announce their successes. Enterprise solutions which provide process and tool integration are now starting to show more maturity and bring more value, while further helping to reduce risks. CMM has been upgraded to CMMI, and new versions of frameworks and control objectives continue to be brought to the world concurrent with many new product offerings (including in 2007). Inherent quality has been emerging, and quality has been evolving, innately. The time is right for more people to see this and to join in to make related contributions. Today the software and technology industry touches virtually every life and every business, bringing with it many benefits and threats, for example, security and identity management. Now, more than ever, resources of all types and at all levels use software and technology, and rely on information, to quickly provide value. Now, more than ever, the world is interfacing with software, technology, and information professionals and that which they produce or provide. A vast audience now needs to hear a message and begin to truly recognize that inherent quality exists and is an innate to be fully realized, developed, and capitalized upon part of the personal and corporate DNA. Today, in the twenty-first century, the pace of change continues to be staggering. Despite the dot-com explosion normalization, new product and product updates continue to be brought to the global marketplace to welcome us into the third millennium with unparalleled

precedence and creativity. High-speed and wireless connections, combined with impressive features at the desktop, including automatic vendor updates and built-in value-add Internet features, are impressive, but a grain of sand in the hourglass in comparison to all that has been emerging. Fortunately, products now more often include or can be implemented with frameworks, methodologies, standards, and capability maturity models which can be utilized by organizations with more applicability to quality improvement within the software and information technology industry than was possible prior to this juncture in the evolution. Fortunately, mappings are expanding for organizations to understand differences or show compliance in various regards, without significant alteration to their QMS. Industry, consulting organizations, and vendors are creating a sea, sky, and interconnected universe of enrichment in support of maturing the software and information technology profession—quality is now truly beginning to evolve inherent to bodies of knowledge, frameworks, products, and processes. Now, more than ever, however, organizations need to embrace or improve upon their quality management systems. Now, more than ever, they also need to be able to understand what is available to them as help. In part one of the twenty-first century (2000-2005) there were already great amounts of inherent quality evidence and means by which companies could begin to leverage what is available from industry and vendors. Applying and contributing to that which already exists, the world will shape Quality Management Systems, so they will evolve along with best-practice and supporting technologies. As a result, now, more than ever, educators and students need a quality foundation to be included

within programs to ready future software and information technology professionals to understand what inherent quality means and can mean to them and to those they will interface with. The combined efforts of industry and academia are igniting and will continue to ignite the inherent quality genetic material within individuals and organizations. Like all aspects of evolutionary genetics and molecular genetics combined, inherent quality related discoveries are occurring, and will occur, as inherent quality gradually becomes more understood and studied, and as it gradually changes and causes change. Inherent quality is simplicity and complexity rolled into one, and has implementations beyond what is presently being achieved or imagined to progressively produce exceptional (and ever more positive) results. It, for example, may be considered simplicity to end users when inherent product quality makes their job or life easier, faster, safer, or more entertaining. It, for example, may be considered complexity if one was to imagine a quality system with no quality manager, because inherent quality was perfected, or at least believed perfected (or for a given organization that it was believed sufficiently implemented for their present and foreseeable future needs).

The evolution is a process which is still occurring, which all can contribute to, and which is continuing to improve the bottom-line and prove the results.

SECTION VI

THE RESULTS