ASQ Innovation Division and San Diego Section 0703 Conference

Innovation and Quality: An ASQ Value

San Diego, CA • October 14 – 15, 2016

CONFERENCE PROGRAM

Hologic, Inc. • 6333 Sequence Drive • San Diego, CA 92029
ASQ recognizes the integral relationship between quality and innovation and has identified “Innovation and Quality” as a core value for the Society. The application of quality practices has long since expanded from its manufacturing roots, and in a similar way the “quality role” is expanding as well. Creating value is a key outcome of quality systems, and finding ways to drive innovation from the quality arena is in itself a value-adding aspect of quality management.

As innovation becomes embedded into our organizations’ cultures, more opportunities are becoming available for the quality professional to do more and take on new roles. The concepts and tools used by quality professionals can be leveraged across the organization to help all employees drive innovative improvements. The globalization of the marketplace and changing technology only accelerate the opportunities for quality professionals and the need to expand the practices of quality in new and innovative ways.
**Conference Schedule At-a-Glance**

### Friday, October 14, 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Room 1</th>
<th>Room 2</th>
</tr>
</thead>
</table>
| 8:30 a.m. – Noon | Jane Keathley  
Never Stop Innovating | Brooks Carder, Carolann Wolfgang  
Assessing Your Creativity |
| 1:15 p.m. – 4:45 p.m. | Mark Claywell, Jen Hamilton  
Have Your Team Innovate: Stop Being Ineffective | Johannes Flecker  
A Navigation System for Innovation |
| 5:30 p.m. – 7:30 p.m. | Opening Reception: Karl Strauss Brewery, 9675 Scranton Road, San Diego, CA 92121 | |

### Saturday, October 15, 2016

<table>
<thead>
<tr>
<th>Time</th>
<th>Conference Registration</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 a.m. – 4:00 p.m.</td>
<td>Keynote: Pat LaLonde, ASQ Chair, <em>The Role of Innovation in the Future of Quality</em></td>
</tr>
</tbody>
</table>
| 8:30 a.m. – 9:30 a.m. | TRACKS:  
**The Tools of Innovation**  
Jon Morris  
The Future of Collaborative Service Robots in the Quality Profession |
|            | Leading Innovation in Organizations  
Gurpreet Singh  
Lean Six Sigma Leadership: Going Beyond the Tools |
|            | Creating Value  
Jane Keathley  
Innovation Planning Using Nontraditional Methods |
| 10:00 a.m. – 10:50 a.m. | Ian Meggarrey  
3-D Printing Software and Quality |
|            | Suresh Chandra Bose  
Driving Organizational Change Management Through Innovation While Scaling QA Process Maturity |
|            | Emma Chen  
Applying the Chinese Concept of “Wu” to Innovation |
| 11:00 a.m. – 11:50 a.m. | Lunch and Keynote: Jeanne Liedtka, Ph.D., *Is Design Thinking for Innovation the New TQM?* |
| 1:00 p.m. – 1:30 p.m. | Networking Break and ISO TAG 279 Informational Meeting |
| 1:30 p.m. – 2:20 p.m. | Srihari Yamanour  
CAD-Based Sustainability Tools in Innovation |
|            | Michael Hobbs  
Putting Metrics to Work to Improve Innovative Problem Solving |
|            | Mark Lindsay  
Supplier Scorecards and Rankings to Manage Performance and Award Business |
| 2:30 p.m. – 3:20 p.m. | Jim Duarte  
Internet of Things (IoT) for Innovations in Quality |
|            | Chris Alexander  
Synergy Leadership: Building a Symphony of Operational Excellence |
|            | Charlie Gragg  
Quality Activities: Cost or Benefit? |
| 3:30 p.m. – 4:20 p.m. | Chris Moustakas, Kevin Edwards  
Driving Company-Wide Innovation With Quality Tools |
|            | Milt Krivokuca  
How Emotional Intelligence Leads to Innovation |
|            | Abdul Chohan  
Employee-Led Innovations: Lessons Learned From Implementing a Grass-Roots Continuous Improvement Idea Program |
| 4:30 a.m. – 5:00 p.m. | Closing Remarks |
## Workshops Schedule At-a-Glance

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
</tr>
</thead>
</table>
| 8:30 a.m. – Noon | **Never Stop Innovating**  
Jane Keathley  
Many companies think that when they hit a home run, it’s “game over.” Great names like BlackBerry were world leaders; then these leaders ran into serious trouble. Peter Senge found that few companies last more than 40 years and 80 percent die in two years. See how innovation is a cycle and what you must do to maintain the passion and success of the early years when the business started with that “great idea.” You need to grow and maintain the optimum-sized organization. This workshop will give you the essential tools and strategy to build the sustainable and innovative organization. |  
| 1:15 p.m. – 4:45 p.m. | **Using Cognitive Science to Promote Innovative Thinking**  
Brooks Carder, Carolann Wolfgang  
The work of Kahneman and Tversky describing a dual process model of cognition led to the award of a Nobel Prize. This model would appear to make predictions about conditions that would favor innovative thinking. In fact, there were numerous dual-process models relating to innovation, some predating the work of Kahneman and Tversky, with very similar, and sometimes counterintuitive predictions. The workshop will review several of these models and test some of their predictions. We will end with a set of practical recommendations on how to enhance innovation. |  
|               | **Have Your Team Innovate: Stop Being Ineffective**  
Mark Claywell, Jen Hamilton  
Many organizations desire to be innovative. Yet, even when they set aside time to generate ideas, they often fail to implement innovative breakthroughs. One reason they fail is the team’s decision-making process. Is your team innovative or indecisive? In this interactive workshop, you will:  
• Learn why a team with an innovative approach makes the difference between success and struggle  
• Discover the characteristics of an innovative team and identify what your team may be missing to be creative  
• Motivate your team to be solution-oriented and not problem-oriented  
• Utilize simple decisions to avoid “analysis paralysis” |  
|               | **A Navigation System for Innovation**  
Johannes Flecker  
Current market shares and success factors are misleading when it comes to innovation and future profits for an organization. Structurally different variables are necessary in order to understand the real levers of innovation. In this workshop, a navigation system for strategy and innovation management will be provided. This approach provides a logical connection between existing and new potentials for profit, market position, experience curve, the invariant customer problem, new solutions, and product substitution rate. The model has been used extensively for several years by Dr. Flecker and his international colleagues. |
### Keynote Speakers

<table>
<thead>
<tr>
<th>Time</th>
<th>Opening Keynote Speaker: Pat La Londe</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 a.m. – 9:30 a.m.</td>
<td><strong>Pat La Londe</strong>&lt;br&gt;The Role of Innovation in the Future of Quality</td>
</tr>
</tbody>
</table>

Pat La Londe, chair of ASQ’s board of directors, will address the role of innovation in the future of the quality profession. She will explore how innovation can be incorporated into organizational management systems, as well as opportunities for expanding the role of quality in areas outside traditional quality functions. Drawing on experiences from highly successful organizations, she will challenge conference goers to apply their skills and expertise to ensure successful innovation in their organizations.

### Afternoon Keynote Speaker: Jeanne Liedtk, Ph.D.

<table>
<thead>
<tr>
<th>Time</th>
<th>Afternoon Keynote Speaker: Jeanne Liedtk, Ph.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:50 a.m. – 1:00 p.m.</td>
<td><strong>Jeanne Liedtk, Ph.D.</strong>&lt;br&gt;Is Design Thinking for Innovation the New TQM?</td>
</tr>
</tbody>
</table>

Jeanne Liedtk, Ph.D., will deliver a keynote address on design thinking, how it contributes to innovation, and its parallels to the total quality management story. Dr. Liedtk is professor of business management at the Darden School of Business, University of Virginia, and a former executive director of the Batten Institute for Entrepreneurship and Innovation.

Jeanne Liedtk is a professor of business at the Darden Graduate School of Management at the University of Virginia. Formerly the associate dean of the MBA at Darden and chief learning officer for United Technologies, Liedtk’s work focuses on the integration of design thinking into organizational problem-solving processes. Liedtk has authored a number of books including *Designing for Growth: A design thinking tool kit for managers,* and *Solving Business Problems with Design Thinking: Ten Stories of What Works.* Her forthcoming book, *Designing for the Greater Good,* translates her work to the social sector.
10:00 a.m. – 10:50 a.m.

**Jon Morris**  
**The Future of Collaborative Service Robots in the Quality Profession**

Increasingly we hear in the media that robots and intelligent machines are doing the jobs that humans used to do, regardless of industry or profession. But what about us—quality professionals? Jon Morris, project leader of the JDQ 3Spheres™ Robotics project, will share his vision of the quality department of the future and the growing role of collaborative service robots in quality assurance and control. Using today’s latest computer vision, speech recognition, and autonomous navigation robotics innovations, Morris will demonstrate how effectively and quickly collaborative service robots could become a quality manager’s best friend—at least until it takes your job.

---

**Gurpreet Singh**  
**Lean Six Sigma Leadership: Going Beyond the Tools**

This session will explore the relationship between Lean Six Sigma and leadership and discuss the critical role that leadership and organizational culture play in successful deployment of Lean Six Sigma leadership.

While lean and Six Sigma tools are critical, there is a need to go beyond the tools and explore the relationship between leadership and successful outcome of Lean Six Sigma deployment.

The speaker will share the results of his research and discuss how Lean Six Sigma deployment results in emergence of new leadership style and also impacts the organization culture. Leadership and organizational culture play the role of mediator in this chain and improve probability of successful outcome of Lean Six Sigma efforts.

---

**Jane Keathley**  
**Innovation Plans Using Nontraditional Methodologies**

“In preparing for battle, I have always found that plans are useless but planning is indispensable (D.D. Eisenhower).” Are our traditional planning methodologies (e.g., business, strategy, project, quality) applicable to innovation? Find out why or why not in this presentation, and come away with new thinking, approaches, and tools that can help with your innovation plans.
Additive manufacturing, also known as 3-D printing, has been touted as the next revolution in production. Although their output used to be limited to visualization and proofs of concept, 3-D printers are now being used directly for production. This “one-step” production will even offer the potential for end customers to print their own products.

Once the manufacturer is removed from the actual manufacturing process, how is final product quality determined and controlled? While the materials used in these printers have an obvious effect on print quality, the software used to design and modify the objects has at least as much impact.
1:30 p.m. – 2:20 p.m.

Srihari Yamanour
CAD-Based Sustainability Tools in Innovation

Customers are starting to think about the impact of their products and how their design impacts the planet. “Green” is moving from an obscure area of research and coming off a hype cycle, reaching a level of maturity where new tools are becoming available through CAD programs so that designers can start making better choices right from the digital prototype down to the production and end of the life-cycle process by considering materials, sourcing, transportation, packaging, manufacturing, and other contributing factors. This session will focus on how these tools can be used to inculcate and guarantee that products are sustainable.

Michael Hobbs
Putting Metrics to Work to Improve Innovative Problem Solving

The balanced scorecard approach to quantifying business performance is a recognized best practice and widely adopted among Fortune 500 companies. However, organizations frequently struggle to define appropriate action limits for scorecard metrics, resulting in a lack of clarity that robs the scorecard of its ability to drive innovation. Here, we present a risk-based, statistically sound method for establishing action limits. The method fortifies a crucial step in the scorecard deployment process while improving the potency of selected action limits to drive innovative solutions. The process is designed to be both intuitive for scorecard owners and to stimulate innovative solutions to operational challenges.

Mark Lindsay
Supplier Score Cards and Rankings to Manage Performance and Award Business

This session will cover appropriate metrics to use to manage supplier performance and award business. This topic is associated with the supplier management portion of the ASQ Certified Manager of Quality/Organizational Excellence Body of Knowledge. Participants will form working groups as a world café and develop affinity diagrams to determine the key issues they are dealing with.
### Jim Duarte
**Internet of Things (IoT) for Innovations in Quality**

Quality and the internet of things (IoT) together expand the capabilities and benefits from both. This allows organizations to harvest data from connected systems like the internet, equipment, and devices. Social media data enhances voice of the customer analysis. IoT data also makes sampling almost obsolete for most organizations. Since terabytes of data are often available, the question is, “Why make decisions on samples when so much data just sits there?” Connected equipment and devices bring the ability to analyze streaming data. Traditional tools enhanced with IoT create things like real-time “control charts on steroids.” IoT provides predictive modeling data to analyze process performance.

### Chris Alexander
**Synergy Leadership: Building a Symphony of Operational Excellence**

The current economy demands more value-added intangibles such as: better communications, greater leadership, trustworthiness, personal authenticity, loyalty, respect, and appreciation. It takes a strong and capable leader to inspire, motivate, guide, and synergize a team of individuals to willingly take action and achieve these extraordinary results. Discover how good managers become strong, respected leaders and walk away with all the techniques and strategies needed to lead and build brand loyalty and communities of lifelong customers.

**Topics covered:**
- How to become a strong leader and powerful coach
- How to determine your strengths and the strengths of your team
- How to build and focus high-performance teams on a shared destiny
- How to deal with conflict and conduct crucial conversations

### Charlie Gragg
**Quality Activities: Cost or Benefit?**

This session will focus on the costs of good and bad quality activities. Not accomplishing good quality activities often results in one or more bad quality activities. Organizations that conduct quality activities to provide tangible cost-effective value are more likely to maximize customer value through good quality activities. Four cost of quality (CoQ) categories, their good and bad activities, when the activities are accomplished, the activity action takers, and finally how to calculate activity costs will be discussed in detail, along with the calculation of costs of quality activities throughout the life cycle. Attendees will discuss cost of quality experiences and utilization of CoQ metrics.
3:30 p.m. – 4:20 p.m.

**Chris Moustakas, Kevin Edwards**  
**Driving Company-Wide Innovation With Quality Tools**

Whether in the form of problem reports or suggestions, the data that drives quality and innovation in an organization can originate anywhere, from a line worker to the CEO. In this presentation, you’ll learn how a global construction firm developed a tool to encourage input from all its employees, and how the quality group incorporated that input into its rigorous Six Sigma program, which enabled them to objectively evaluate process improvement ideas and translate those ideas into real cost savings.

**Milt Krivokuca**  
**How Emotional Intelligence Leads to Innovation**

Emotional intelligence (EI) is a critical element required for successful leadership. The maturity of EI in a leader is especially important to maximize the creative energies of their followers. Research continues to evolve related to importance of EI in leaders and how to recognize the maturity of EI in an individual. This presentation will examine EI in relation to supporting creativity and innovation. Attendees of this presentation will gain a better understanding of quality-focused leadership and how this style can promote creativity and innovation among employees.

**Abdul Chohan**  
**Employee-Led Innovation: Lessons Learned From Implementing a Grass-Roots Continuous Improvement Idea Program**

Learn about designing a continuous improvement program that is employee based rather than one driven by the top or the outside. The presentation will cover the structure, implementation, and related incentive program. Sharing of real feedback from program participants and the lessons learned, along with case studies and metrics from the program, will be discussed.
Hosted by the ASQ Innovation Division and San Diego Section

Thank you to our conference sponsors!

Conference Site Map at Hologic