



FROM THE ASQ WORLD CONFERENCE ON QUALITY & IMPROVEMENT (WCQI) IN CHARLOTTE

IN ISSUE #5

# Notes from the Chair

by Jane Keathley, ASQ Innovation Division Chair

What a treat to see so many of our members in Charlotte during WCQI! Interest in innovation and division activities was high, with a steady stream of traffic to the division booth. There were lots of reunions and meetings with friends and colleagues, new and old.

Thanks to the booth committee, especially Tracy Owens, Tammy D'Alto, Therese Steiner, Mica Howard, Jim Nelson, Nicole Radziwill, and Peter Merrill. We gained many valuable connections with interested conference attendees and provided information to them on innovation, our upcoming conference, and other division activities. We also gained some good VoC feedback – see photo.

Our Division Membership meeting on Tuesday was well attended, despite being quite a distance from the main conference venue. Again, lots of interest in division activities and how to participate. We will be following up on those requests and look forward to bringing more of you into division leadership roles. (If you are interested and haven't heard from us, by all means, feel free to contact me.) A rousing game of Word Pizza, led by Jim Nelson, was a fun creativity exercise – our brains were in “free

association” mode as we wrapped up and left the meeting!

On Wednesday morning, Peter Merrill presented 'Lean Start-Up: The Essentials' to a large and engaged crowd. Thank you to Peter for representing us so well.

**It's not too soon to start thinking about next year's WCQI in Seattle** (Apr 30 – May 2, 2018). Please consider submitting a presentation on innovation (more information on the conference here: <http://asq.org/wcqii>). If you are interested in division sponsorship for your paper, please contact Will LaFollette at [lafollette.williamz@gmail.com](mailto:lafollette.williamz@gmail.com) or me at [jkeathley@keathleyandcompany.com](mailto:jkeathley@keathleyandcompany.com). Also, if you'd like to help with the Innovation Division booth or any other World Conference activities in Seattle, let me know!

Look inside this issue of the newsletter for updates on our next activities: our webinar series and our fall conference in Dayton, OH (<http://asq.org/innovation-group/About/innovation-conference>).

Jane



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# A Voice of the Customer Exercise at WCQI

by Dr. Nicole Radziwill

If you happened to be in Charlotte, North Carolina during the first week in May, it's likely that you were an attendee at ASQ's annual world conference. During that week, most of the leadership team from the Innovation Division spent at least some time at Booth 817, where they connected with new and prospective members – while spending time with old and not-so-old friends!

The highlight of the booth was a huge sheet of white paper with nearly twenty square feet of space – and a handful of markers. New members and veteran members shared thoughts about what they felt the Innovation could – and *should* – do for its members. We gathered some of the highlights so you wouldn't have to squint!

## New ASQ Members Say:

Share how to motivate people & develop grassroots innovations

Mentor me – how do I learn to innovate?

How do I narrow all my ideas down to one concrete, actionable plan?

How can I get those who think “old school” to think “out of the box”?

*At the  
Innovation  
Division  
Membership  
Meeting*



Enhance our understanding of creativity and its role in innovation

Teach No Fear!

Better Communication

Allow us to explore the synchronicities between quality, innovation, & knowledge management

How do we improve efficiency without stifling creativity?

BEER

## Veteran ASQ Members Say:

Define Innovation!

How can I differentiate between good and bad ideas?

How can I monetize my innovative spirit?

Help me find my hidden innovator!

Develop a curriculum for college (undergrad & grad students) to learn about innovation

How can I get people to unlock their creativity and be a 5-year-old again?

Invent systems that make it impossible for failures to occur & for jidoka principles

What are established best processes for brainstorming?

How can I convince my boss that we need innovation?

**CONTACT US ANY TIME WITH IDEAS!**

Listening to the “Voice of the Customer” is something we do all the time, not just at conferences.

## 5<sup>th</sup> Annual ASQ Innovation Conference

### October 13-15, 2017 in Dayton, OH

**THE SUN NEVER SETS ON INNOVATION** at the LexisNexis Campus & Surrounding Area. Proudly hosted by the

ASQ Innovation Division (<http://asq.org/innovation-group/>) and the ASQ Dayton Section (<http://asqdayton.org>)

See the Call for Papers at <http://asqdayton.org/2017/02/17/call-papers-2017-asq-innovation-conference/>



# Innovation Gold Rush? The Pioneers of Seasteading

by Dr. Nicole Radziwill

*In 1968, the inventor and environmentalist R. Buckminster Fuller wrote an essay in Playboy envisioning the city of the future. The new metropolis would consist of a giant tetrahedron—a pyramid made of equilateral triangles—a shape that Fuller, the popularizer of the geodesic dome, admired for its stability and symmetry. Each edge of the pyramid would be two miles long; each face would accommodate dozens of detachable housing units, with sky-facing windows and terraces. Inside the pyramid, in the vast space formed by its base, a public garden would be illuminated by shafts of sunlight from openings on the pyramid's sides. A funicular would deliver residents up and down the giant structure. And the whole thing would float on the open ocean. — Rachel Riederer in New Republic*

Have you ever read the stories of the American west, the pioneer families heading west into unknown territory and uncharted terrain – with the vague promise of abundance, renewal, and new opportunities? Even children have been inspired by the *Little House on the Prairie* series for almost a hundred years.

If you're like many people, you've also fantasized about "heading west" in some sense, whether in your personal life or your professional life – leaving everything behind and starting a new life where everything must be reinvented, where even the infrastructure and the connections between people must be reimaged. Unfortunately, *there's no more land that's unexplored.*

**Thanks to modern technology and visionary entrepreneurship, that may no longer be a problem.**



**Figure 1:** The location of the first seasteed will be in central southern Tahiti (at the \*). From <http://travel-tahiti.com>



For nearly a decade, a group of futurists, engineers, and investors has been creating a new vision: sustainable, floating cities and countries that can be grown and reconfigured to meet the changing needs of their residents and other stakeholders. They envision that these new cities will be beacons of innovation – places where everything is "out of the box" by definition.

We were fortunate to be able to attend the **First International Seasteading Gathering** in Papeete, Tahiti, from May 15-18, 2017 to see what this group's doing. After a nearly eight-hour flight across the Pacific Ocean from Los Angeles, we emerged in a literal paradise – with crystal clear, shallow lagoons, a nearly perfect 80 degrees with moderate humidity, and more plentiful cheese and freshly-baked French baguettes than I've seen anywhere in the world outside Europe.

Although we went expecting a rather philosophical and visionary conference, we found that *they're ready to start building now.*



**Picture 1:** The water really is this color in the shallow, sandy lagoons.

We heard presentations from architects who had flown in from the Netherlands, Dubai, and Australia, who have been working on architectural concepts for the first floating platforms. We heard from engineers who explained to us that the technology to make this happen – in particular, for energy generation and sustainable living – are already available and not particularly expensive. We heard from politicians at the highest levels of the government in French Polynesia, who want to provide opportunities for their youth while honoring and cultivating their sense of history and cultural pride. We heard from social scientists who are interested in learning about how people will relate to one another differently in a reconfigurable society. And we also heard from a mosquito scientist who's figured out how to make that... *not a problem.*

## Value Proposition

Why Tahiti? The government officials that we met explained that Polynesians could be



**Picture 3:** Overwater bungalows are available at most beachfront hotels, but will run you \$500-1000 a night.

considered *the first innovators*. The Polynesian culture is inherently innovative, always exploring, always looking for new ways to explore new horizons. Tourism has also significantly dropped off, but the country now has excellent internet connectivity to Hawaii, Asia, and Australia. As a result, the “Tahiti Smart Tourism Initiative” has been launched, seeking to link the multitude of islands together into a “smart country” that could also provide job opportunities in the nascent tech and telecommunications industries.



Picture 2: The lagoon on the neighboring island of Moorea.

### “Groundbreaking” in 2018

On January 13, 2017, the business arm of the Seasteading Institute (Blue Frontiers LLC) signed a Memorandum of Understanding (MOU) with French Polynesia to “cooperate on the creation of a seazone with a unique governing framework, where we can begin seasteading.” Construction begins in 2018. By 2020, the founders of the first international seastead envision that the sustainable floating city will have a small hotel, conference center, residences, research facilities, and services... a true platform for innovation.



Picture 4: The Tahitian Presidency, where we were hosted by President Edouard Fritsch.

### References

Quirk, J. & Friedman, P. [Seasteading: How Floating Nations Will Restore the Environment, Enrich the Poor, Cure the Sick, and Liberate Humanity from Politicians](#). Free Press, 384 pp.

# Book Review: Solving Complex Industrial Problems Without Statistics

by Dr. Nicole Radziwill

**This book fills a unique gap.** For those in our community who are not strong in mathematical and analytical methods (but who wish to contribute more fully to the “analyze” stage of improvement projects), Pawlak provides practical examples to demonstrate the value of qualitative reasoning. For those who want to add a layer of common-sense thinking to continuous improvement efforts that are already data-driven, he provides the background and the basis for making sure that the analytical and computational parts of projects are well-framed.

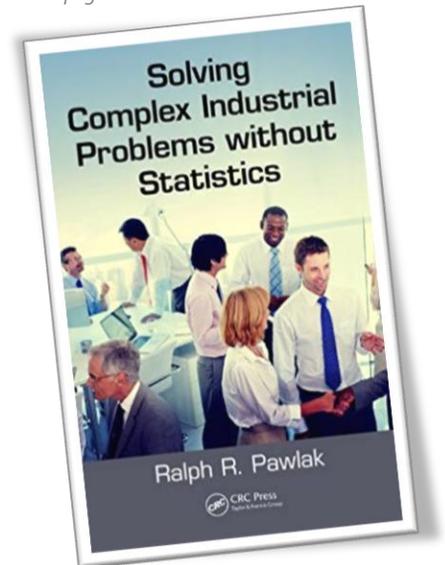
Despite the title, this book does not suggest that industrial problems can (or should) be solved without robust mathematical methods and statistics. Rather, Pawlak spends most of the time describing and explaining the qualitative processes that should accompany all problem-solving efforts in industry.

Grounded in fourteen short case studies, the techniques he shares are simple and immediately applicable: identifying what characteristics distinguish good output from bad, generating “clues”, visual observation, articulating differences, and staging assembly and operations trials, among others.

Even without a complete and rigorous analysis, these “clues” may provide enough information for you to identify and deploy an appropriate corrective action. The examples cover a range of cases, from the new product development process, to assembly, to design, to machining, to troubleshooting the causes for defects.

**In summary, this is the only book I have ever encountered that comprehensively explains the thought process of the “fuzzy front end” in Lean Six Sigma problem solving.** As a result, it provides excellent case studies that can be used as a first step towards understanding problem-solving in common industrial scenarios.

*Solving Complex Problems Without Statistics*. 2016. Ralph R. Pawlak. Boca Raton, FL: CRC Press. 143 pages.



Despite a sometimes-repetitive feel, the conversational tone of this book makes the material particularly accessible to beginners who might benefit the most from that repetition. “It does not matter that some problems that you encounter will require knowledge beyond your capacity,” Pawlak advises. In fact, the author could have gone further: the primary weakness of this book is that each of the case studies could easily have been two or three times as long and still maintained reader interest.

Overall, the “crime scene” approach that he recommends helps to frame the process of discovery and learning in a straightforward, accessible way, and provides a unifying thread through all of the cases.

**WE INVITE YOU TO CONTRIBUTE TO THE NEXT NEWSLETTER!**

We’re thankful for the submissions from our members! Please help us provide blog posts, news, articles, and insights so we can make this a useful and dynamic resource!

Email your contributions any time for inclusion in the next quarterly Newsletter.

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# Design Thinking as an Innovation Methodology

by Jose Valdivia

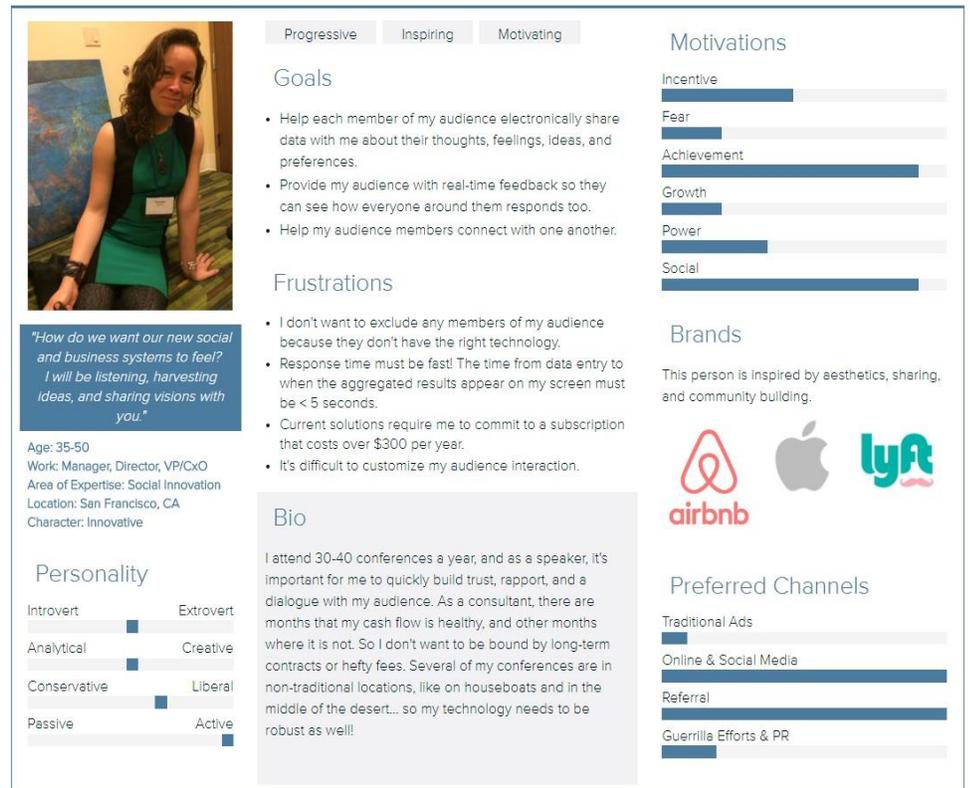
Human-Centered Design (more popularly known as Design Thinking) has been a growing discipline around the world mainly due to the explosion of digital products and services and the tremendous success of companies who adopted this methodology -- including Apple, Walt Disney or Intuit. In this article, I will describe some key Design Thinking tools that quality professionals can leverage to identify opportunities for service innovation. These tools have been used by Marketing team for several decades, but Design Thinking practitioners are doing a good job in integrating them in a nice package.

For quality professionals, several tools used within Design Thinking should be very familiar like interviews, stakeholder analysis, 5 Whys, brainstorming, process maps, prototypes, etc. Human-Centered Design, by applying concepts from anthropology, sociology and psychology and focusing their attention on the person who will be using the product or service can help identify problems more accurately and create solutions that are more likely to satisfy the individual's wants and needs. Another similarity with the quality methodologies for process improvement (DMAIC) or process/product design (DFSS) is that Design Thinking is also a data-intensive, customer-centric and applies an iterative approach.

## Tools for Design Thinking

**Personas** are the Customer Profiles that are most representative of the segment population you are creating or improving a service for. *The image on the top right of this page is an example of a complete user persona that was prepared for a tech company marketing audience engagement solutions.* As the persona(s) is created, a very realistic representation of the individual's expectations, goals, values and needs is available and that information becomes very useful as the team evaluates and prioritizes opportunities or solutions. This tool sets the basis to define our next tool.

**Customer Journey Maps** provide a vivid story as the individual interacts with multiple touchpoints along the service experience. Generally, the map lists at the top the main stages of an end-to-end process and captures the individual's positive and negative feelings as well as pain points. These maps can logically help in identifying opportunities to improve the process and



validate the desired outcomes of the process. The focus is on the individual emotions, rather than jumping to quick conclusions to improve efficiencies in people, process or technology. CJMs usually do not need much details on the internal processes of the organization.

**Servicing Blueprints** are essentially traditional process flow diagrams that reinforce the perspective of the individual receiving the service, but at the same time, include the internal and support processes from the organization. These flow diagrams can be used to diagnose and improve processes as well as apply lean techniques to perform time analysis. Given their increased level of detail, these diagrams usually cover a portion or stage of an end-to-end process (compared to CJMs).

**Storyboards** help test ideas by connecting a Persona with a proposed experience. The storyboard format is very informal ranging from comic strips to sequence of wireframes. The purpose is to focus on the emotional reactions of the individual for a given experience and iterate through multiple cycles until individuals are comfortable with the designed experience. Storyboards can also be helpful in comparing two different Personas going through the same experience.

**User Story Maps** are the aggregation of individual user stories that make up the experience (mostly in software feature terms). This artifact is mostly built as the team is ready to build a prototype of the final solution and wants to ensure the big picture was not lost in the details. It also helps agile teams plan their software releases.

**Journey Monitoring** ensures appropriate quantitative and qualitative metrics are defined and closely reviewed on how customers are reacting to the service experience. This feedback loop is the equivalent of Control in DMAIC or Verify in DFSS that triggers the iterative method to continuously improve a process.

In summary, Design Thinking brings a new set of tools for the quality professional in charge of improving or designing a process. Though several tools in Design Thinking methodology have been in the Quality professional toolkit for many years, it is important to point out the contributions of Human-Centered Design techniques that gives us a more realistic perspective of the expectations, emotions, goals and values of the end customers whom the service is designed for.