

virtuAIChE

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NOVEMBER MEETING: WORKING ABROAD

A Panel Discussion, Live from Salt Lake City

WEBEX MEETING NUMBER 276 141 101 (further directions on page 8)

TUESDAY, 10 NOVEMBER 2015

9:00 pm EST, 8:00 pm CST, 7:00 pm MST, 6:00 pm PST;

UTC/GMT 0100 10 November 2015

In this increasingly global economy, opportunities to work abroad are abundant. A discussion from panelists will speak about the merits and challenges of working outside your native country. We will then open up the room and phone lines for questions.

In person attendance is at the Utah Museum of Contemporary Art, 20 S West Temple, in Salt Lake City, UT 84101, with virtual attendance via the usual WEBEX site.

More information can be found on the <u>VLS Events Website</u>.

IN THIS ISSUE

This issue does come early to announce the VLS monthly meeting, which is not on our usual fourth Thursday of the month, but on the second Tuesday. Nor is it entirely virtual! The broadcast will be a live panel discussion in Salt Lake City, Utah, USA, where VLS members attending the AIChE annual meeting will have a chance to meet and mingle in person. Those of us not attending the Annual Meeting in person can still attend virtually and the video will appear in our archives.

In this month's letter to editor, long-time AIChE member **Loraine Huchler** concisely comments on lessons learned from the days of the pocket protector stereotypes and proposes a path forward with a diversified diversity definition to enhance engineering excellence.

The theme of building on the past for a better future continues with **Past Chair Noah Meeks,** who recaps the process of organizing the first VLS Student Presentation Competition, with valuable insights for the future of that event.

VLS Chair Amanda Scalza introduces (at least to me) World Quality Day, explaining why she celebrates it. In doing so, she clarifies the meaning of "quality" in this context, expanding another definition to express an evolving concept.

Chair-Elect Daniel Sujo shares some perspectives on the past, present, and

future of equality in Mexico. His discussions of "diversity" and "equality" also demonstrate some of linguistic considerations of expressing evolving ideas across time and cultures.

-- Jennifer I. Brand, Editor

LETTER TO THE EDITOR

Neil Yeoman's letter in September reminded me of my experience in the early 1980's when, as the "first –and-only" woman engineer at my first job, I worked with engineers who, frankly, looked like my own engineer-father and had these kinds of old fashioned ideas about what women were supposed to do and how women were supposed to act.

I could have stayed mad; I could have quit - but instead, I persevered.

Gradually, attitudes evolved and behaviors changed; the number of women engineers increased and corporations began to educate their employees about the value of diversity.

Many of those early initiatives about diversity didn't seem to make sense to me; we were asked to count and categorize differences, usually by gender and ethnicity, and later by socio-economic status and nationality.

I've been thinking that this perspective is too narrow. On the surface, diversity is a way to promote mutual respect and understanding between people - for all of their differences – but underneath – it's about innovation, diversity of thought and, ultimately, impact on results. For a new way to think about diversity, I suggest reading this article: <u>Five Trends Driving Workplace</u> <u>Diversity In 2015</u> (http://www.forbes.com/sites/work-in-

progress/2015/02/03/20768/)

Ironically, we can thank Mr. Yeoman for starting this conversation – his comments confirm that our profession needs a better, broader, richer understanding of diversity.

And by the way, my engineer-father, with his pocket protector and crew cut, could not have been prouder having a daughter as a chemical engineer.

-- Loraine Huchler, P.E., CMC®

Loraine Huchler, an entrepreneurial chemical engineer, is an expert in risk management in utility water systems. She has served as the president of MarTech Systems, Inc., an engineering consulting firm, since 1997 and has been a member of AIChE for over 30 years.

LESSONS LEARNED: STUDENT PRESENTATION COMPETITION

Past Chair Noah Meeks



For the September 2015 meeting, the VLS hosted an undergraduate student presentation competition. The entire section leadership pulled together in order to make it a very successful event, and potentially the start of an annual tradition. Many poster competitions focus on research, but our Past Chair Dan Lambert suggested that most students do nonresearch engineering activities for their coop rotations or summer internships, and that there should be an outlet for their stories. With that in mind, we began planning a competition that would focus on students with industrial co-op rotations or summer internships. We didn't intentionally turn away those with academic research internships, either.

Hopefully, this outline of our steps and our lessons learned will benefit other groups that might want to have competitions (virtually or in-person) and serve to remind the VLS in the future of our process this year.

The first critical step was developing a set of guidelines for this competition; it was a challenge to make the guidelines exacting enough to attract quality presentations but broad enough to apply in any area of the chemical engineering industry. After discussion, the guidelines were set more broadly, essentially requiring only that the presenter connect the work to chemical engineering fundamentals and explain the relevance to the particular industry to demonstrate big-picture understanding. Although these broad criteria potentially led to more abstracts. I think it was the right approach and that too many abstracts, if that happens, can be handled in the

future while preserving the broad approach to accepting presentations.

The second step was communicating the information to the Institute, since we were not limiting this to those with VLS connections. We published notices in the newsletter, and in other AICHE newsletters, so that members would be able to invite students from their companies. We were also able to notify some faculty advisors for the student chapters. The communication for broad announcements like this is always challenging, and I think the lesson learned is to communicate earlier and more often than seemingly necessary. We found that in many instances, communication to AICHE professional members and then to their students from their companies was more effective at generating submissions than communication with faculty advisors.

The third step was handling and reviewing the abstracts, definitely the most labor-intensive part of the process. We received 34 abstracts which required at least 2 reviewers per abstract. However, the leadership team was excited about this entire project, and by the end we had four or five reviewers for every abstract, including a good demographic mix of industry, academics, experienced and young professionals. All names, school, and company affiliations were removed; reviewers only saw the abstract text. This approach got mixed reviews, as some thought that company affiliation in particular would have given some context to the abstracts; while others thought the ability of students to communicate

concisely and create the context was a key part of abstract writing. However, all agreed that providing them a list of criteria aided the review process, and in the future, further refinement of the process would be needed to handle larger numbers of abstracts. Finally, the top six abstracts were selected for presentation at the meeting (assuming about 5-10 minutes per abstract).

The final step was the meeting itself. On the Tuesday before the Thursday meeting, we hosted dry run sessions with each participant. I definitely encourage that because most undergraduates have not used WebEx, so the dry run familiarized them with the program. Also, they work in all sorts of place, so this dry run allowed them to handle most sound issues. In the future, it will be important to have the program planned in even more detail, so that they know the speaking order, when questions will be coming, etc., as this can cause confusion during both the dry run and the actual meeting. However, due to the dry run, the night of the meeting came with almost no technical issues except some connectivity issues out of India. The other lesson from the meeting is to communicate and enforce strict time limits and question limits. Many of the students went over the allotted time and with questions so the meeting total time was almost two hours. Judges also need a few minutes to tabulate results, so it's important to have something in the program to fill this time, if winners are going to be announced live. The VLS

awarded three of the six finalists cash prizes (\$250, \$150, and \$100).

Overall the VLS was very pleased with the participation and I appreciate the support of all our leadership and AIChE staff to make this a successful event!

WORLD QUALITY DAY

Chair Amanda Scalza



Every year, the second Thursday of November is <u>World Quality Day</u>. This event was created by the United Nations in 1990 to promote the importance of quality towards growth and prosperity of every

nation and organization. Quality is important to us both at work, but also as consumers. Many engineers even devote their entire careers to assurance of quality.

The trouble is "quality" can sometimes be an ambiguous word. As technology improves, our demands as consumers are constantly changing. In 1987, the International Organization for Standardization (ISO) published its first standard on quality management systems, ISO 9000, which many companies adhere to today.

The 8 principles behind this standard give structure and direction to the word "quality". They can be broken down into a few key concepts: focus on customers, involvement of the entire organization, use of organization tools, and continuous improvement.

Okay, that may sound pretty corporate, but stepping away from the details, you realize how much it matters. When the chemicals I help make go into railcars and trucks, it's hard to see the connections. But as I buy a new car, when my sister moves into a new home, when my friends start having children, I am reminded of the impact of those same chemicals in each of these big life events. Every day occurrences help remind me why quality matters.

We, as the consumers, reward quality products with our loyalty, which in turns gives those companies funds to continue growing and innovating. Sometimes, this makes small town shops into national chains. Other times, it protects us from products with false promises. So I celebrate World Quality Day, and the empowerment the reminder brings each and every one of us as a worker and a consumer in the world economy.

REFLECTIONS ABOUT DIVERSITY IN MEXICO

Chair Elect Daniel Sujo



I had never thought deeply about diversity issues until I came to the US about 10 years ago. As I tried to start writing this article in Spanish, I realized that I do not know the vocabulary to describe diversity issues in my mother tongue. In Mexico, the issue has been approached not in terms of diversity but in terms of equality, probably because of historic reasons. Disclaimer: I am not a sociology or history scholar so my point of view and evidence may be *ad hoc*.

Sometimes, I joke and say that Mexico's name should be "Mix-ico". Mexico's original people were very genetically diverse. They were conquered and forcedly mixed with the Spanish who were also genetically diverse as they had been conquered by the Romans, Germanic tribes, and the Moors. These "mestizos" then mixed with others, mainly from Africa but also from East Asia, who were also forced to live and work in Mexico. Sadly, all this mixing pushed people to mix and amalgamate their cultural and genetic diversity, and become equals in an equal set of unfortunate circumstances. After all, one must survive.

The legal system formalized the rules for "mixed bloods" of various proportions. A caste system of 17 categories was implemented in the 18th century in order to assign legal rights (or lack of rights) according to ancestry. Independence came to Mexico in the 19th century, bringing alignment with the ideals of American Independence and the French Revolution, at least in principle. In practice, hundreds of year of a culture focused on differences soon compromised the ideals. General behavior and attitude towards diversity reverted to a status that was the same as in colonial times.

It took many more wars, genocides and 150 years of more genetic mixing (many other waves of immigration occurred in Mexico) for the country to start thinking just a little bit differently. Scholars like José Vasconcelos, Octavio Paz, Justo Sierra, among many others started philosophizing about the new Mexican race, the "cosmic" race. Regardless of the validity of this line of thought, it created enough momentum for the government to provide some quality and equal education that reached out to more people in both rural and urban areas. Equal education opened the door for a civilized dialogue between the privileged and the disadvantaged, so both could embrace diversity in order to achieve equality. Educational efforts did make a small but significant difference regarding racial discrimination. Alas, it has not been eradicated.

There are still many things to work on besides race in Mexico, as there are in the rest of the world: gender, sexual orientation, (non)-religious beliefs, looks, age and marital status. (Yes, in Mexico, it is legal to openly discriminate in hiring; jobs can be denied if one is single or married or arbitrarily too young or too old regardless of skills or years of experience.)

CONTRIBUTIONS

I am very pleased that reader discussion has begun in our pages, and hope others will follow suit by speaking out on issues of interest to them. Send letters to the editor or other contributions in an email to the editor at jbrand@unl.edu using "VLS Newsletter" in the subject line.

VLS NOMINATIONS AND ELECTIONS

Running the VLS is a rewarding challenge, a growth opportunity, a way to contribute to the profession, a way to connect with others. Want to give it a shot?

The VLS Nominating Committee is still accepting nominations for open offices in the section for the coming year. Members are encouraged to nominate themselves or others by contacting our Chair-Elect, <u>Daniel</u> <u>Sujo</u> for more information.

AICHE ANNUAL MEETING

The <u>Annual Meeting for 2015</u> is in Salt Lake City, November 8-13. The CEP October Issue included <u>highlights</u> of the annual meeting.

MARK YOUR CALENDAR

VLS Meetings are the fourth Thursday of the month: --- Tuesday, November 10th ---Utah Museum of Contemporary Art 7 – 9 pm (MST) Meet at the AIChE Annual Meeting Salt Lake City, Utah

2015 is European Industrial and Technical Heritage Year

ATTENDING A VLS MEETING

• Join by internet:

- o https://aiche.webex.com/aiche/j.php?MTID=m8a0766c5d03559acce05542a78513954
- Meeting number 276 141 101
- Join by phone: Access code: 276 141 101
 - o 1-866-469-3239 Call-in toll-free number (US/Canada)
 - o 1-650-429-3300 Call-in toll number (US/Canada)
 - o <u>Global Call-in numbers</u>
 - Toll-free calling restrictions

Attendance at a Virtual Local Section Meeting is open to AIChE Virtual Local Section Members, AIChE members, and other interested people.

The statements and opinions in this newsletter reflect the views of the contributors, not of the AIChE or the VLS, neither of which assume responsibility for them.

PDH CREDIT FOR VLS MEETINGS

LAURA J. GIMPELSON, P. E.

Attendees of the Virtual Local Section Meetings can receive up to 1 hour of professional development credit that meets the continuing education requirements of most state professional engineering registrations. To receive the certificate documenting your attendance, send an email to the VLS secretary, Laura Gimpelson, at <u>virtualaiche@gmail.com</u>. Include the following information in your email:

- 1. Name of the Presentation and Speaker
- 2. Attendee's name as listed on the registration certificate
- 2. Attendee's registration number and state/providence of issuance

The certificate, in pdf format, will be issued within 30 days of the receipt of the request.