



Puget Sound Human Factors and Ergonomics Society

ISSUE 1, 2019

FIRST QUARTER

A Message from the Outgoing President

Dear PSHES members:

I hope you had a good year in 2018. In this edition of the newsletter, I would like to publicly pass my responsibilities as president on to **Randy Pickett** of Archbright, who will be leading our Chapter for next two years. As some of you might be aware, Randy joined the Executive Council in 2016 as Communications Chair. He has been a tremendous resource, handling our website needs, as well as promoting various organizational events. In the last two years, Randy has hosted Webinars and Dinner Meetings in his office for PSHFES. I am confident that with Randy at the helm, our Chapter will continue to be one of the best chapters of HFES in the nation. While I am excited to enter the "Past Presidents List," I will remain involved in PSHFES activities.

I especially wanted to thank all of you who attended our **Annual Symposium** on September 13th at the Four Points by Sheraton Seattle Airport South. The Symposium was a huge success, in large part due to Niki Howard's capable leadership and our volunteers' hard work (**see page 2 for a recap of the Symposium**). We wish to extend a **special thanks to all of our sponsors**, whose financial support is vital to our success and continued growth. We appreciate your generosity!

Please note that we have decided not to have our annual symposium in 2019 as **the national HFES conference** will be at **Sheraton Seattle** from **October 28–November 1 (see page 12)**. We are fortunate that the 2019 conference will be in Seattle since it gives local chapter members the opportunity to easily attend the national conference and gain international exposure. However, throughout 2019 PSHFES will continue to be active, hosting webinars and workshops, as well as conducting worksite tours, so please stay tuned.

It has been my honor to represent the dedicated PSHFES members and the Puget Sound Chapter

at the national level. I would like to extend a **special thanks** to the Executive Council for their time these past two years. By volunteering, they have demonstrated a dedication and passion for sharing their expertise, and a genuine interest in nurturing our Chapter's growth. If you are new to the area and want to get involved, **please join our Chapter** and **explore our membership benefits**. If you are a continuing member, I encourage you to get involved in the Executive Council.



Rammohan V Maikala, PhD

A Message from the Incoming President

Hello to all PSHFES members! My name is Randy Pickett and I am the incoming President for 2019. I am honored for the opportunity to serve PSHFES in such a capacity!

A little bit about me, I am currently a Safety & Loss Control Consultant with Archbright in Seattle. I have twenty years of experience in safety and loss control and have immensely enjoyed my career. In the last seven years I started to assimilate ergonomics and human factors into my safety programs, realizing the importance of both disciplines in accident and injury prevention.



Randy Pickett, MS

2018 Annual Symposium Summary

On September 13, PSHFES held its annual Symposium at the Four Points by Sheraton in Des Moines, WA. The presentations this year saw established practitioners and researchers share best practices and the leading trends in the field of Ergonomics and Human Factors.



Symposium Chair, Niki Howard (SHARP, Dept. of L and I) introducing the theme "Emerging and Topical Issues in Ergonomics/Human Factors"

Morning Keynote

The program started with a keynote by Grant King, a Mechanical Engineer specializing in Robotics for NIOSH at the Spokane Research Laboratory.



Grant King, NIOSH-CDC Spokane Research Laboratory

Grant introduced the attendees to NIOSH's historical role in robotics research and outlined the value that robotics brings including: repetitive tasks, dangerous tasks, or tasks that need to be done quickly. He then discussed NIOSH's role in robotics research more in depth. The NIOSH Center for Occupational Robotics Research's mission is to provide scientific leadership to guide the development and use of occupational robots that enhance worker safety, health and well-being. Robotics can be found in a number of forms and applications as Grant shared several great resources and blogs for further information on robotics and robotics research.

By 2020 it is projected that more than 1.7 million new industrial robots will be installed in factories worldwide and NIOSH, OSHA, and the Robotics Industries Association (RIA) are collaborating to provide guidance and access to training resources related to traditional robots and human robot collaboration. Mr. King did note that there is concern that the rapid advances in technology may outpace standards setting. This advancing field is potentially adding new and unknown hazards into the work area and the best way to combat it is Prevention Through Design.



Gary Davis, The Boeing Company

In the next presentation, Gary Davis, Ergonomist at the Boeing Company, posed the question of whether or not someone could Automation-Proof their job (thus preventing robots, other machines, or software, from taking over some or all of the tasks currently performed by the human worker). Gary identified the typical types of "routine" jobs and tasks that are most likely subject to automation in the near future, as well as the skills that machines and software would have a difficult time replicating. Gary stressed the advantages to workers of developing additional

technical, innovation, and communication skills, as these are difficult skillsets to automate.

David Andrews then presented on the “Adventures of an Ergonome.” David has a rich history as a Human Factors professional in the British Defense Ministry and now works in the medical device field. David’s experience has taught him a lot about Human Factors Integration as he finds that human factors truly transcends job functions. David stressed that identifying the requirements up front is essential and that meeting regulations is a byproduct of doing a good job in human factors design. He encouraged different industries and job functions to learn from each other as the medical device industry is new to Human Factors but can learn through the trials and tribulations of other industries.



David Andrews, Stryker/Physio-Control

Ergonomics Professional of the Year 2018

Trevor Bryant, MS, PT CEAS II, Concentra



Trevor Bryant was honored with the 16th Annual PSHFES Ergonomics Professional of the Year Award. Trevor is also on the Executive Council as the Treasurer of PSHFES.

Congratulations Trevor and thank you for all your contributions to the HFES community!

Distinguished Service Award

Steve Russell, Russell Photography



Steve Russell was honored with the Distinguished Service Award for his contributions to PSHFES.

This award is given to an individual who makes a significant contribution to PSHFES activities, processes, procedures, or organizational growth.

Congratulations Steve!

Afternoon Keynote

The second Keynote was presented by Dr. Amy Darragh of The Ohio State University. She presented a virtual simulation that she helped create for Home Health Aides. Dr. Darragh noted that Home Healthcare Services is the fastest growing industry in the US with Individual and Family Services a close third.



*Dr. Amy Darragh,
The Ohio State University*

In 2016 the overall rate of lost time injury in Home Healthcare Services was 36% higher than the overall rate for private industry with the primary sources

including floors, cluttered walkways, ground surfaces, worker posture, and patients.

Home Healthcare Workers (HHW) may also be exposed to a number of other hazards that may be difficult to control. As a response to these challenges Dr. Darragh partnered with researchers, investigators, software engineers and designers and a student team to build a virtual environment to help with risk identification and mitigation. This gamification of training allows the HHW to walk through a virtual environment encountering hazards and understanding the rationale for why it is considered a hazard, followed by the appropriate response. The team found that virtual simulation as a training method offers three distinct advantages for HHW:

- Accessible, easily disseminated training
- Engaging, game based environment
- Ecologically and valid contextually relevant hazards and home environment



Gina Vahlas, WorkSafeBC

Gina Vahlas, CCPE, shared her insights on Ergonomics and the Millennial Generation. Gina identified Millennials as the first generation to have exposure to technology their entire lives and by 2025 they'll make up 75% of the workforce. This population has been subject to awkward postures and contact stress from digital devices before even entering the workforce. This means that they are likely showing up to the workplace with discomfort which increases the importance of setting up their workstations when they first start. Coupled with frequent follow ups and education regarding the "whys" of the recommendations they are better equipped to learn new habits.

Moving to the other end of the workforce age spectrum, Deborah Smith, MD MBA, Senior Manager of Boeing Health services, shared her experience with Workplace Considerations for the Older Worker. Many Americans are working later in life, which increases the population of the workforce aged 55 and older. Dr. Smith also noted that many aging workers see retirement as a transition, not a termination, with many of them working at least part-time after retirement. These workers tend to have similar physical disadvantages as other normally aging people, who tend to lose flexibility, balance, and physical stamina, among other functions.



Dr. Deborah Smith, The Boeing Company

Dr. Smith noted that older workers tend to have fewer injuries, but when one occurs the injury tends to be more severe. Many of the adverse effects of aging can be counteracted by promoting healthy lifestyles, injury prevention, and self-management techniques. Dr. Smith noted that the best ways to prepare for an older workforce are to have policies and programs in place to help capitalize on the strengths of older workers, promote health promotion and support healthy lifestyle choices, and renew focus on ergonomic and workplace changes.

There were four 'flash' student presentations (**see page 5**). Throughout the day, attendees enjoyed the exhibits of the sponsors, and networking over great food developing new friendships, and reconnecting with the old ones.

PLEASE JOIN PSHFES

Full Member: \$28.00; Student Member: \$14.00.

Visit <http://www.pshfes.org/> for membership benefits.

Student Presenters at the 2018 Symposium



Student presentations (from left to right):

1. "Technology-Mediated Lived Experiences of #Actually Autistic Adults" by **Annuska Zolyomi** (University of Washington);
2. "Does Human Emotion Mediate the Relationship between Information Representation and Online Learning Performances?" by **Yushi Yuki Sun** (Oregon State University);
3. "Design of Good Work" by **Steven Hattrup** (Oregon State University);
4. "Assessment of Whole-Body Vibration Exposures among Garbage Truck Drivers" by **Frank Ryou** (University of Washington).

Symposium Panel Discussion



The symposium ended with an interactive panel discussion with the theme speakers. Congratulations to the entire symposium committee and volunteers for a job well done.

Contributed by: Kelly Lynch, The Boeing Company; **Edited by:** Gary Davis, Director, PSHFES

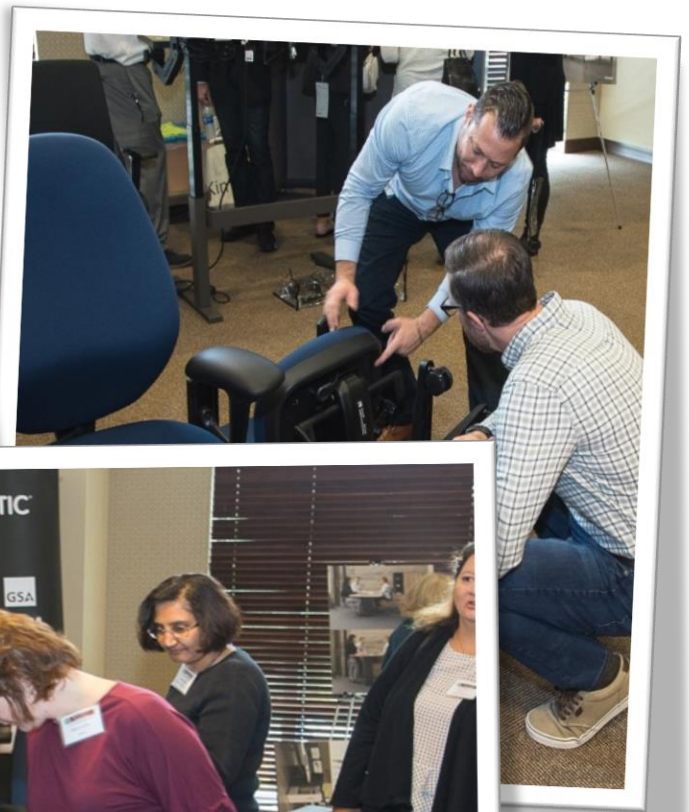
2018 Symposium Sponsors



2018 Symposium Sponsors continued



2018 Symposium Sponsors continued



Symposium Pictures continued



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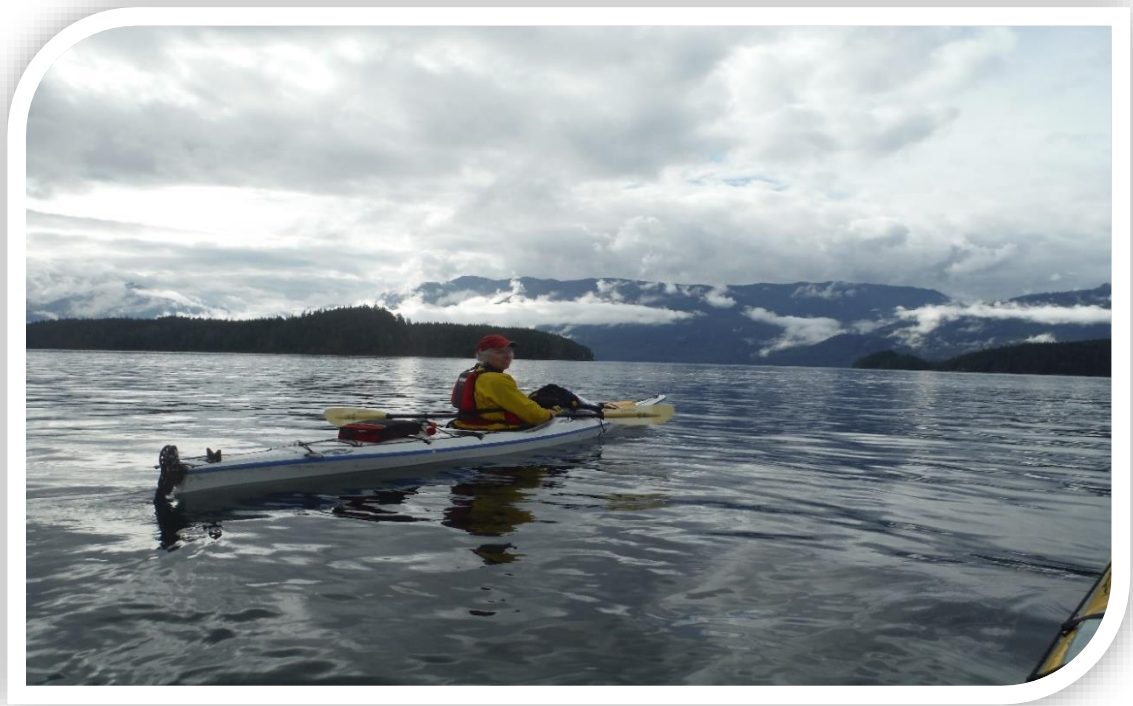


The PSHFES Executive Council (2019-2020)

President	Randy Pickett, Archbright
Immediate-Past President	Rammohan Maikala, Providence St. Joseph Health
Treasurer	Trevor Bryant, Concentra
Communications Chair	Carrie Lin, The Boeing Company
Newsletter Editor	Rammohan Maikala, Providence St. Joseph Health
Program Events Co-Chairs	Lynnda Dee English, Solutions Northwest, Inc. Vacant
Past Symposium Chair	Niki Howard, SHARP, Dept. of L and I
Outreach Chair	Miriam Joffe, The Boeing Company
Director	Gary Davis, The Boeing Company

Mission Statement

- Provide opportunities for professional development, networking, workshops, and education for local Human Factors and Ergonomics (HFE) professionals, students, and enthusiasts.
- Raise public awareness of the value and benefits of HFE.
- Provide volunteer opportunities for HFE professionals to contribute to the Puget Sound.



Picture Credit: Lori Winnemuller (The Boeing Company), 2018 Annual Symposium Sponsor Liaison



*Attend, Present Your Work, and Build
Your Professional Network!!*



2019

October 28–November 1

HFES
International
Annual Meeting

**Sheraton Grand Seattle
1400 6th Ave
Seattle, Washington**

Visit: <http://www.hfes2019.org/> for more details