Workshop Summary

The Peace Literacy team of Paul K. Chappell, NAPF Peace Literacy Director and Sharyn Clough, our curriculum coordinator and Oregon State University professor, facilitated the first ever Engineering Peace in Practice workshop for engineering students and faculty over the Dec. 8/9 weekend on the campus of Oregon State University in Corvallis.

(Above) Participants from the workshop

The idea for the workshop was proposed by Dr. Devlin Montfort, OSU College of Engineering Associate Professor in the School of Chemical, Biological, and Environmental Engineering, whose research interests include engineering education. Devlin had attended the Peace Literacy 2019 Summer workshop in downtown Corvallis. He quickly saw the value of Peace Literacy in engineering education and commented:

“Peace Literacy is a deep synthesis of so many philosophical, historical, social, interpersonal, and personal movements that it feels overwhelming. The way everything is organized relates the huge ideas to real and immediate actions that matter. I've learned skills and vocabulary that will definitely help me be and do what I want. Freeing, empowering, and inspiring.”

Montfort co-sponsored the workshop, along with OSU student club Advocates for Freethought and Skepticism (AFS), a campus organization popular with many engineering and other science students. NAPF Peace Literacy Director Paul K. Chappell facilitated the workshop with co-facilitator OSU Philosophy Professor Sharyn Clough who is also advisor to the campus club. The workshop was designed to show how Peace Literacy could help meet the Accreditation Board of Engineering and Technology (ABET) Student Learning Outcomes, and attracted 20 students and 6 faculty, primarily from the College of Engineering, but also the College of Science, and the College of Liberal Arts.
ALUMNI RESPONSES
Realizing that we need to be taught to be literate in peace, President Emeritus of AFS, and recent graduate from the OSU School of Electrical Engineering and Computer Science Shreyans Khunteta, offered the following analysis:

“As AR and VR and other world-changing technologies become realized, we need to be more aware of how these technologies can fundamentally alter every aspect of our life. With commonplace AR & VR around the corner... How do we prepare for it?

“As Paul K. Chappell notes, he still gets calls from schools asking him, ‘How can I make rules and frameworks for cell phone use in the classroom?’ That’s a question they should have asked him a decade ago. It’s far too late now. We shouldn’t allow AR, VR, and other technologies to hit us in the same way.

“Most engineering students who go to school don’t always know how to be engineers... Systems thinking, both in terms of individual products and in terms of society at large, is something grossly neglected in engineering education.”

Other alumni shared their enthusiasm:

Brian Davis, OSU graduate from the School of Mechanical, Industrial, & Manufacturing Engineering:
“The Peace Literacy workshop provides valuable tools to assist in understanding yourself and others, work better in groups to solve a common problem, and diffuse situations effectively. It feels like the one thing that’s missing, and once you know it you see it everywhere. Very glad I participated!”

Karen Harper, OSU graduate from the School of Electrical Engineering and Computer Science:
“The conference was very important for me and helped me further understand my place in my profession and in this world.”

FACULTY COMMENTS
OSU faculty members found the Peace Literacy frameworks and skills valuable for their future curricular planning.

Nick AuYeung, 2016 Callahan Faculty Scholar in Chemical Engineering, School of Chemical, Biological, and Environmental Engineering:
“I would love to borrow many of these lessons! The lack of ethical development in society was something I had never thought about.”
Elain Fu, Associate Professor, School of Biological and Ecological Engineering:  
“The workshop provided me with a set of tools that I can apply in my social justice and engineering course this winter.”

Wendy Aaron, Assistant Professor, Coordinator, Mathematics and Statistics Learning Center:  
“The tools for making sense of aggression and its roots are essential to moving forward as a species. I hope this training is available for all OSU community members.”

STUDENT FEEDBACK
Undergraduates found an opportunity for bringing to the world of engineering, and their own personal lives, a new awareness tinged with hope.

Zachary Lee, School of Electrical Engineering and Computer Science, President of AFS:  
“If I’m being honest, I was skeptical about Peace Literacy at first, in large part because it sounded like just the newest way people were saying ‘If people would just be more peaceful everything would be fine’ without actually looking at how that would be accomplished. Turns out, it’s the exact opposite. Peace Literacy’s approach to conflict analysis and resolution, reversing systematic dehumanization, and understanding of the ways humans work as individuals and in groups could not be more vital or more useful at this time in our society. Peace Literacy takes traditional notions of Peace as a thing that just happens and turns them on their heads, telling us that we need to actually put in some effort to achieve the peace that on some level we all dream of.”

Aditya Rajashnarayanan, School of Chemical, Biological, and Environmental Engineering, Vice-President AFS:  
“I can’t say enough about this movement … From an individual standpoint it has inspired me, restored my hope, and reaffirmed my sense of purpose.”

Nathan Boechler, School of Civil and Construction Engineering:  
“Peace Literacy training is central to providing engineering students with human interaction and empathy training. Skills such as these will be fundamental to solving the engineering problems that exist now and into the future.”

Jude Pelpola, School of Chemical, Biological, and Environmental Engineering:  
“The idea that we have to learn these skills and that these skills are not pre-programmed in humans is a point that people should understand more – that people have the capacity to be better if given the opportunity.”

Alex Garcia, School of Electrical Engineering and Computer Science:  
“I wholeheartedly endorse the work of Peace Literacy groups attempting to improve the conflict resolution skills of students and professionals in order to help create a more ethical population capable of tackling the moral challenges of the 21st century.”
Tristan Thompson, School of Electrical Engineering and Computer Science, President “Science, Technology, Engineering, and Arts (STEAM) in Action”:
“Peace Literacy taught me how to create a more effective environment in my own work!”

In an additional reflection sent after the workshop, Nathan Boechler looked into the future:
“The legacy of the future engineering community must not be our ability to compute, but our innovation in human understanding. We can no longer be satisfied in the what ifs of science, but we must become more aware of the human impact on our world both directly and indirectly in our choices of how we build, ship, work, and even think. We are seeing human evolution right before our eyes, in the hearts of the youth who yearn for a community and togetherness that stretches beyond borders and encapsulates the whole of humanity. These are the future leaders we must nurture and build, those not satisfied with the status quo of human development in the heart as well as the mind.”

NEXT STEPS FOR INTEGRATING PEACE LITERACY INTO ENGINEERING EDUCATION
What’s the next step? Moving forward, faculty participants gave the following suggestions.

Elisar Barbar, Professor and Chair, Dept of Biochemistry and Biophysics:
“Give a formal seminar to faculty/student once a year to educate department on Peace Literacy and how to work together. Include feature in capstone class and career class.”

Elain Fu, Associate Professor, School of Biological and Ecological Engineering:
“I think there would be interest from engineering faculty in other units. Maybe work with College of Engineering to offer this as part of their professional development workshop series? Associate Dean Todd Palmer heads the College of Engineering Change Team and would be a good person to contact.”

Nick AuYeung, 2016 Callahan Faculty Scholar in Chemical Engineering, School of Chemical, Biological, and Environmental Engineering:
“We could have interdisciplinary designs projects. We have a teamwork practitioner learning communities in CBEE (Chemical, Biological, and Environmental Engineering) that is implementing best practices and learning about them. We should work together.”

Recent alumni agreed that integrating Peace Literacy skills into freshman introductory and other classes would be the place to start.

Brian Davis, OSU graduate of School of Engineering, Mechanical, Industrial, and Manufacturing Engineering: “Teach it early on (freshman intro classes). Show people how it applies to things they care about/personal struggles they’ve had. Use it to put a more personal aspect on classes and not just have classes where you take a test and get the grade.”

Karen Harper, OSU graduate of School of Electrical Engineering and Computer Science:
“I think it makes sense to incorporate some of this work into engineering 101 classes. I think also that in our Capstones classes, writing classes, and other kinds of overarching conceptual classes would be a good place to start.”

Shreyans Khunteta, OSU graduate of School of Electrical Engineering and Computer Science, President Emeritus AFS:
“... More workshops are absolutely needed....”
Current students shared similar ideas.

**Alex Garcia, School of Electrical Engineering and Computer Science:**
“Encourage students especially undergraduates new to the university to attend similar seminars. Even better would be if the university would add a class that focused on training ethics and Peace Literacy skills. It may be difficult to add it to the bare core but it would certainly benefit new students going through their academic/professional career.”

**Tristan Thompson, School of Electrical Engineering and Computer Science, President STEAM in Action:**
“Make Peace Literacy into a class, introduce it in Class-STEAM in Action! I would like to do more peace literacy things.”

**Nathan Boechler, School of Civil and Construction Engineering:**
“Incorporate Peace Literacy skills into course learning objectives especially in earlier classes. Use listening and empathy skills as graded portions of group work projects. Encourage student mentorships in graduate student research projects.”

**Zachary Lee, School of Electrical Engineering and Computer Science, President AFS:**
“I think that classes like the one Devlin is talking about are a good start … holding weekly small events over the term regarding Peace Literacy, both on a “what is it” and skill building level. Part of the problem for engineering majors is that we simply don’t have time for many out-of-class things, so one of the best things to do would likely be teaching the professors and specifically looking at how it can be applied in teamwork situations since that’s something that would probably get through to engineers more than a lot of things. I would absolutely be interested in being a part of that work.”

**Aditya Rajashnarayanan, School of Chemical, Biological, and Environmental Engineering, Vice-President AFS:**
“I’m really thrilled to know of professors within my own program that understand the need for change and are actively pushing to make it more conducive to thoughtful and responsible engineers.”

With agreement as to the value of Peace Literacy for their personal lives as well as their professions, participants were keen on formal Peace Literacy seminars once a year, possibly to feature in capstone and career classes, to use listening and empathy skills as graded portions of group work projects, to organize interdisciplinary projects, and to incorporate the skillsets of Peace Literacy into engineering best practices.

For NAPF, these steps in engineering education represent a new direction in our almost 40-year mission. NAPF has spent decades working towards peace in the age of nuclear weapons. Now it has been offered an opportunity to help train a new generation of engineers, both students and faculty, in order to address the root causes that enable support of nuclear weapons. The workshop participants made clear their desire to act on hope and a positive vision as they Engineer Peace in Practice.

To learn more about Peace Literacy, visit peaceliteracy.org.