



Kevin S. Jones

Professor and Ultimate Frisbee enthusiast

By **Rahul Rao**

Kevin S. Jones's interest in materials science dates back to high school. Specifically, it emerged when, "I was ready to spend my summer bagging groceries," but instead, one of his high school science teachers encouraged him to apply for an on-campus science training program at the University of Florida. "She knew I was kind of a science geek." Although initially interested in biology, Kevin found himself working on Uranium in phosphate mining and materials research—and loved it.

Currently the Frederick N. Rhines Professor and Co-director of the SWAMP (Software Analysis and Advanced Materials Processing) Center at the University of Florida (UF), Kevin is a mainstay in the MRS community, having been involved in materials science, along with outreach, for decades.

After finishing undergraduate studies and a brief stint working for DuPont, Kevin—wanting to become a teacher—decided to attend graduate school. He eventually chose the University of California, Berkeley, largely for its prolific Ultimate Frisbee team, a sport he still plays to this day!

"If you're in this profession, you're in it because you like to teach kids," he said. "To watch their eyes light up and get all excited about what they're going to learn, and to just explore the world with them and show them things they've never seen before ... to them, it's almost magical."

Kevin discovered MRS while he was a graduate student in the mid-1980s. "I remember just walking around, thinking, 'Man, everybody is having a great time at this meeting!'" Encouraged by the friendly and welcoming atmosphere of the MRS Meeting, he started a MRS Student Chapter at UF after becoming an associate professor.

From there, his involvement with the organization grew. He served on the Meetings Review Committee, Public Outreach Committee, and Awards Committee and was later elected as secretary and member of the Board of Directors. "I had a lot of fun learning about the organization that way," he said. While his involvement with MRS began several decades ago, Kevin's involvement with the materials science community and MRS has far from diminished; he believes MRS is still the same warm, friendly community he discovered at his first meeting.

Kevin explains that one of the largest challenges facing materials science outreach is the discipline's relative obscurity, especially compared to better-known fields such as electrical engineering or mechanical engineering. This is what drives Kevin to spread the word about his field: "I've always found it a personal goal to teach people what materials science and engineering is all about ... and help them to understand how critical it is. Materials science has played a big role in advancing engineering.... When we invent new materials, new things are possible."

To Kevin, materials science has an advantage in terms of public outreach: unlike other fields, materials science lends itself more easily to the layperson. "We all realize that there's an Iron Age

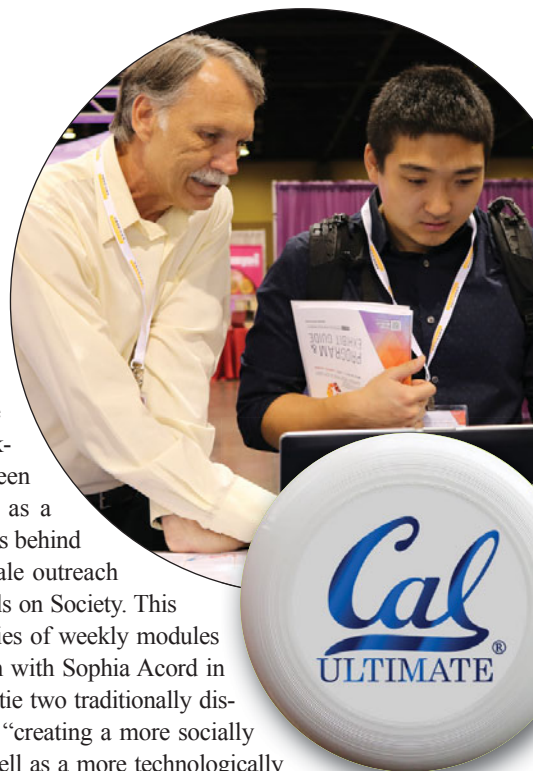
and a Bronze Age.... We named all our ages after materials, so that was already ingrained in us." But Kevin did not believe that his students were making the connection between their fields and society as a whole. This is the impetus behind Kevin's current large-scale outreach effort, Impact of Materials on Society. This class, composed of a series of weekly modules developed in conjunction with Sophia Acord in Humanities at UF, helps tie two traditionally disparate fields together by "creating a more socially conscious engineer, as well as a more technologically aware non-engineer," says Kevin. The class explores how society has affected the development of materials, and vice versa, and is meant to appeal to both STEM and humanities students.

Starting with a class of about 10 students, the number of attendees rapidly multiplied into the hundreds, until only the limited size of the classroom stopped that number from growing. With help from Pam Hupp at MRS, the course, and a corresponding open-source textbook, have been ported for online use at other universities across the country. Kevin has received requests for a high school version and for translations of the course.

"It seems to have resonated really well with a desire nationally for an understanding of how materials innovations and engineering innovations in general are influenced by society.... This course helps students understand why engineering is a socially important activity," particularly with a current generation of students that Kevin believes is very socially conscious and volunteer-oriented. In recent years, Kevin assisted Amy Moll, Boise State University, and lots of MRS volunteers with the creation of NOVA's *Making Stuff* series for the Public Broadcasting Service. In fact, his involvement with *Making Stuff*, in particular creating the video episodes, partly inspired the later videos for Impact of Materials on Society.

The positive reactions to *Making Stuff* inspired Kevin to invest more energy into outreach. "When you start making these kinds of connections with people, they find it really inspiring, and to me, that's the most fun ... to inspire the next generation to go off and do something great. And perhaps to come up with biomaterial innovation to help me keep playing Ultimate Frisbee."

In the end, says Kevin, "it is not just about making a faster car or computer. It's more about how you help enrich the human condition." □



Rahul Rao is a student at Vanderbilt University studying Physics and English.

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