Introducing the New IDEA Faculty Development Fellow: A (somewhat surprising) Interview with Sean Garrick

The Institute for Diversity, Equity, and Advocacy (IDEA) is proud to present these profiles highlighting our faculty’s outstanding research and community engagement around grand challenges.

September 2016 by Amelie Hyams

There are three things you should know about Sean Garrick, Professor of Mechanical Engineering (http://www.me.umn.edu/) and incoming Faculty Development Fellow for the Institute for Diversity, Equity, and Advocacy (IDEA) (https://diversity.umn.edu/idea/). Some of them might surprise you.

1. He once wanted to be a writer or a poet (and still kind of does).
2. He wasn’t always good at math.
3. He credits his academic success to a couple of wonderful mentors and a smart sister.
Garrick has an incredible understanding of fluid physics and computational fluid mechanics. And he truly enjoys his work. He recalls exactly the class he was in when he “fell in love with fluid physics.” It was in his first fluid physics class in his junior year of college. This, and the course he later took in Computational Fluid Mechanics, amazed Garrick. And he was hooked.

Given his love of engineering, it’s not surprising Garrick was recently awarded a Fulbright scholarship to study the effects of fluid turbulence on atmospheric aerosols. He is looking forward to working with an elite group of scientists in Finland.

It might surprise you however to learn Garrick started out as an English major. He loves poetry and essays about the human condition. “My dream job was to be able to write those things.” He still seems a bit wistful when he talks about it.

But by his second year of college he came to believe his enjoyment of science and technology made engineering a better fit for his career pursuits. “I just really enjoyed it – looking at theory and the fact you can combine mathematics and programing and see these wonderful things.”

As a gifted engineer you might assume Garrick has always been good at math and science. “That’s not really true,” he says. He actually struggled with learning algebra in ninth grade. With obvious fondness he recounts how his older sister spent hours tutoring him everyday after school. She stuck with him until something just clicked.

Once he got it – math wasn’t a problem for Garrick again. In the dedication for his Ph.D. he said, “This is to my sister, who taught me all the math I ever needed to know.”

Garrick’s attributes his love of science and technology and his ultimate success as an academic to the influence of two mentors: Associate Professor Ching–Shi Liu at SUNY Buffalo and Professor Peyman Givi, currently with the University of Pittsburgh.

Between them, Garrick says these two taught him how to work harder than he thought was possible, and how to be a professional. Working with Givi as a graduate student “was like a finishing school,” he says. “It was a fantastic environment to be in.”

He also credits Liu with encouraging him to give back by being a role model and helping others. “He knew I was very passionate about working with other people. He led me down the road of making sure I did something for the betterment of society.” This goal still guides all of Garrick’s work.

As the incoming Faculty Development Fellow for IDEA, Garrick looks forward to finding ways to support faculty and help them advance. But he’s aware there are many challenges.

Relevance is essential. “How do you come up with the right mix of programs that will be useful for a significant number of our population?” Garrick starts by asking them. He is connecting with faculty from other parts of the University to learn about what challenges they’re facing and what they need.

He’s aware his experience is different from faculty in other disciplines and their challenges are also different. “I think we have to be careful in thinking every story is like our own.” Talking with colleagues provides insights to help shape programming.

A sense of community is also important. Within a single department or unit, the number of underrepresented faculty may be very small. But not when added up across campuses. Garrick feels if underrepresented faculty were more aware of their colleagues at the U, they could build a stronger community.

“You don’t need to be working on the same thing because these are our colleagues. These are our resources that we can all utilize to help improve our sense of community.”

Garrick points to a story from his own experience about how he came to collaborate on a proposal with Jigna Desai from Gender, Women & Sexuality Studies (GWSS).

“What would someone from GWSS and Mechanical Engineering have in common, subject-matter wise? Nothing.” Not true. He met Desai while working together on a committee and learned they share an interest in getting more underrepresented students into STEM.

“The more you bring people together, the more their commonalities become apparent and the more they can find solutions.”

Time is another challenge in bringing faculty members together. Faculty are very busy. So it’s difficult to find the right time to schedule things. “This sounds like a small thing but you have to make sure that a significant number of the folks who would like to be there, you’d like to be sure they can make it.”
In addition to helping faculty who are already here, Garrick wants to help our potential faculty: Ph.D. students and postdocs. He’s working on a plan to provide learning opportunities and insights on academia for these underrepresented students. “This informs the path they choose.”

He has more ideas he hopes will “contribute to deepening, furthering and broadening the pipeline . . . ensuring we have enough faculty from underrepresented groups at the U.”

This is just the beginning.

What excites Garrick about this new role as IDEA Faculty Development Fellow? “I don’t think you have an option but to be excited because the need is so great.”

“I really love this university. This is an outstanding university . . . [but] to a certain degree the absence of underrepresented students and faculty, to me it’s a gaping hole that needs to be filled. And I think I can help do that.”

/Header Image Credit: Amelie Hyams, 2016/