Engineering Hall of Fame

Theodore G. Lewis

B.S., Applied Math, 1966

Professor (Retired)

Naval Postgraduate School

While a student, Lewis worked in the basement of Strand Agricultural Hall operating an early vacuum tube computer, the ALWAC. His job was to run students' programs on punched paper tape.

For a young man living in a small, rural town in Oregon, the future was mapped out. Like his father and friends, Theodore G. Lewis went to work at the local mill in Lebanon, Oregon, after graduating from high school in 1960. No one had any encouraging ambitions for him. Only Lewis believed he had more to offer.

America was in a space race and a Cold War. One of the few locals to leave town was Lewis' uncle, Rod Kleint, who became a rocket scientist in California. After two weeks of mill work, Lewis hitchhiked to Los Angeles. Kleint got his nephew a technician job at Rocketdyne, which was designing the rocket engines for the Gemini and Apollo programs.

"For a boy from the country, it was an impressive display of industrial power," Lewis said. "I'd walk into the work area and a rocket engine the size of a house would be moving from station to station."

His takeaway from the job experience was that engineering is where the action happens. He returned home and enrolled at Oregon State University.

"At OSU, I took every math class they would let me take and that education has stood me well," he said. "It's amazing now how long-ranging the effects of OSU and that math education have been."

By the mid-1960s, supercomputers were causing a revolution in industry. Lewis received his undergraduate mathematics degree in 1966. By the time he graduated with his advanced degrees in computer science in 1971, the personal computer era had begun. Intel introduced the first microprocessor that year.

In 1976, Oregon State invited Lewis back to serve as faculty in its new Computer Science Department. At the forefront of this dynamic evolution, Lewis instructed students for 17 years while also directing research at the Oregon Advanced Computing Institute into foundational technology still used today like parallel processing, multiprocessors and software engineering.

But Lewis likes a challenge. His next move was to the Naval Postgraduate School in Monterey, California. He also dipped a toe in the commercial world, working as an executive in research and development at DaimlerChrysler and as a senior vice president at Eastman Kodak. Then the world stopped on Sept. 11, 2001.

In the aftermath of the 9/11 terrorist attacks, President George W. Bush created the Department of Homeland Security in 2002. The Naval Postgraduate School opened the Center for Homeland Defense and Security (CHDS) that same year to prepare civilian graduate students to defeat terrorism and respond to public safety threats and natural disasters. Associate Provost Paul Stockton (later the Assistant Secretary of Defense for Homeland Defense and Americas' Security Affairs) asked Lewis to help.

"They needed a place to educate the next generation of emergency management and homeland security professionals," Lewis said. "Nobody knew how to do it. I got to invent curriculum, build a team and teach some of the courses. We started with $2 million in funding but 10 years later we had $20 million. It was a good group of people to work with, and we made a difference. We had hundreds of positive responses from our students. It's very gratifying to have students speak so well of their education."

After stepping down as the executive director of CHDS in 2013, Lewis retired though he still does some teaching, consulting and writing. Over his career, he's published 30 books. He recently wrote a paper about modeling simulations around the pandemic. He lives in Salinas, California with his wife, Molly Ann, and their two Corgis. Their son, Todd Lewis, has followed his father's footsteps into cutting-edge technology as the vice president of hardware for Agility Robotics in Albany, Oregon. Their daughter, Paige Olsen, works for OSU in Capital Planning and Development.

Lewis considers himself lucky that his interests and talents aligned with the historic changes in technology that occurred over the course of his career. If not for the example of his uncle and an inborn tenacity, Lewis might easily have never left his rural mill job.

"Never give up; believing in yourself is everything," he said.

> *"Attending OSU changed my life, completely. I went from working in a mill in Lebanon to OSU professor and beyond, all because of my education at OSU."*