

"Information has to be understood to become knowledge."

— Carol Tenopir

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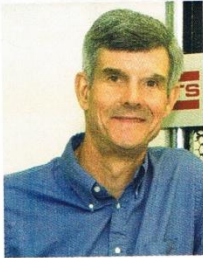
News for the UT Community

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PROFESSOR PROFILES

Small Worlds — Big Results

By Clark Miller



Six hundred of UT Knoxville Chancellor's Professor George Pharr's research worlds would fit within the diameter of a human hair. But the nanoscale materials he studies now figure largely in modern medicine, space exploration, computer hard drives and everyday products like tennis rackets.

For inspiration about his field, he can just look across the dining room table at his wife, Marilyn, who has an artificial heart valve.

"It's made of pyrolytic carbon, a form of carbon made by decomposing methane gas at

high temperatures," he said.

Pharr himself has an artificial lens in one of his eyes — also a product of materials science.

Two things motivate him most: scientific curiosity and those moments when he knows he's helped a student.

Pharr, who's been at UT for 20 years, also works hard to recruit students into the materials science program. The field used to be known as metallurgy. That was before the advent of so many new engineered materials.

"Until I got to Rice as an undergraduate, I didn't even know about materials science," he said. "Even now, beginning engineering students at UT often haven't heard of materials science," he added. "That's why we try to get them interested when they first get here or even while they're still in high school if possible."

In addition to his teaching and research duties and his role as department head in the UT Materials Science and Engineering Department, Pharr holds a joint faculty appointment with nearby Oak Ridge National Laboratory (ORNL), which is managed by UT in partnership with Battelle. It is more than an honorary appointment: with it comes access to top research tools and the role of deputy director of the Joint Institute for Advanced Materials (JIAM), scheduled for construction on UT's new Cherokee Farm campus.

He said the UT-ORNL partnership is of great benefit.

"Materials science is a strength that really distinguishes ORNL from other labs," he said.

Pharr and his wife Marilyn Walker Pharr, a graduate of the UT College of Communications, have two sons: Matthew, 22, who is now working on a doctorate in mechanics at Harvard; and Adam, 19, a civil engineering major at Stanford. The Pharrs have strong ties to East Tennessee. Marilyn's family has farmed in the Maryville area since 1790.

Tenopir Studies the Digital Age

By Clark Miller



For someone so steeped in the digital age it's ironic that School of Information Science Professor Carol Tenopir, a member of the inaugural class of Chancellor's Professors, has a house full of books.

Workdays, however, Tenopir is an internationally recognized scholar on the digital age and the evolving ways people find and process information. She is recognized as a leader in the online information industry. Since 1983, she has published a monthly column on digital information in "Library

Journal." "Online" magazine named her one of the top nine "leaders of the online industry." A study done by researchers at the University of Missouri-Columbia and published in the Autumn 2006 edition of Library and Information Science Research named Tenopir as the most research-productive library and information science faculty member in the U.S.

"I look at the outcomes of all of this information. The pace of acceleration has been much greater since 1995 and the flourishing of the Web, especially in medicine, engineering, sciences and social science," she explained. She expects improvements in hand-held digital devices to speed up this trend. Today's enormous flood of information, however, has to be well-organized, vetted and filtered before it becomes useful.

"Ultimately, it's all about human needs," she said. "Information has to be understood to become knowledge. Then it can lead to wisdom."

Change, flexibility, freshness are obvious hallmarks of digital publishing. "My career is always interesting, and it continues to get more interesting. It's a moving target," she said. "There are new things all the time, and the ways people use information never stops changing."

"Lots of folks want to design better scholarly communications vehicles," she said. "The challenge is to find out the ways scientists and other scholars actually use the information. Then we can figure out how to improve the design of journals and delivery of services."

Tenopir said that in studying the digital age, it's also interesting to study what hasn't changed. "Scholars still do about one-third of their reading in print journals," she said. "So paper hasn't gone away. It's still often more convenient."

Carol and her husband, Gerald Lundeen, emeritus professor of Library and Information Studies at the University of Hawaii, have a son, Andrew, 23, who recently graduated from Lewis and Clark College in Portland, Ore.