Sheridan Libraries Get Prestigious NSF Grants

Two digital research projects in the Sheridan Libraries have been awarded prestigious National Science Foundation grants totaling $3 million. Both projects are collaborative efforts that focus on applied research driven by real world educational and scholarly problems, said Nancy K. Roderer, interim dean of university libraries.

"The competition for these awards is keen," Roderer said. "And the fact that the libraries received two awards in the same year is an extraordinary accomplishment."

One project involves the creation of three-dimensional images of ancient cuneiform tablets, the oldest written documents in the world. Digital Hammurabi: High-Resolution 3D Imaging of Cuneiform Tablets will get a $1.55 million grant and brings together researchers from the Whiting School's Computer Science Department, the Sheridan Libraries, the Krieger School's Near Eastern Studies Department and the Applied Physics Laboratory.

"This is an exciting opportunity to combine applied technical research with a compelling scholarly need," said Lee Watkins, assistant dean of the libraries and director of the Center for Scholarly Resources.

Because cuneiform tablets are in various collections throughout the world, access is an issue for scholars working in the field, noted Watkins. With a database of detailed, three-dimensional digital replicas of the tablets, not only will access for scholars improve, but study of the tablets also will be improved because digital images can be enhanced and analyzed in ways that the physical artifacts cannot. Work on the project will begin this summer.

The second project, which comes out of the Digital Knowledge Center, will receive a $1.5 million grant and involves enhancing a data capture technique that will allow researchers to digitize a wide range of cultural materials, everything from ancient Greek texts to medieval French manuscripts to music for the lute from the 17th century.

Sayeed Choudhury, Hodson Director of the Digital Knowledge Center, said the project will bring together a multidisciplinary team from within and without Johns
Hopkins, including researchers from the Sheridan Libraries, humanities, Peabody Conservatory and Mechanical Engineering. Outside collaborators include researchers from Tufts University, the University of Edinburgh and the University of Oxford, with images and material supplied by the British Library.

"This combination of diverse disciplinary expertise reflects the complex and demanding facets of developing digital libraries," Choudhury said.

At the heart of the project is a symbol recognition program that will be adapted to read musical notes and typeset and handwritten texts in a variety of languages, ancient and modern.