

April 21, 2005

Las Vegas, NV - Professor David A. Padgett led a workshop entitled

**"Geographic Information Systems (GIS), Global Positioning Systems (GPS), and Spatial Analysis Tools in Support of Service Learning Course Content"**

at the **National Technology and Social Science Conference (NTSSC)**.

The meeting is held in Las Vegas annually by the National Social Sciences Association (NSSA). The NSSA is described as "the largest interdisciplinary association in the United States" on its home webpage (<http://www.nssa.us/index.html>). Those in attendance at both the conference and the workshop represented a healthy mix of scholars from four-year universities, community colleges, and historically black colleges and universities (HBCUs).

The majority of the workshop participants had little to no previous experience with GIS and related technologies, but expressed definite interest in applications specific to their disciplines. Padgett led the group through a very interactive session; each workshop section was followed by numerous questions from the audience. The presentation began with Padgett sharing his five-year experience building a GIS lab and developing a GIS-based curriculum at Tennessee State University (TSU); where, prior to his arrival, no such program existed on the campus. Several attendees revealed that they too are at institutions or in academic departments lacking spatially-based curricula and/or technology. Padgett shared with them several low-cost options and grant opportunities for obtaining GIS software. He also suggested that faculty try to develop GIS methods to support existing courses instead of the often time-consuming task of creating new courses.

During the main portion of the workshop, Padgett described two "service learning" projects carried out by his students. The first involved applications of global positioning systems (GPS) in support of residents' efforts to stem the tide of urban decay in Salemtown, a community close to TSU's campus. An application of [Flow Mapper](#) was demonstrated to show how rapidly out-migration from Nashville to outlying counties is occurring, with the end result being somewhat negative for inner-city neighborhoods, including Salemtown. Applications of GIS and GPS were used to support "neighborhood audits" where local volunteers located, mapped, and then monitored problem sites such as abandoned buildings, fugitive dumps, and code violations. With many of the areas lacking easily identifiable street addresses, the use of GPS increased the effectiveness of the audit process. In the second project, Padgett's students used GIS and GPS in support of the Nashville Metropolitan Transit Agency's (MTA's) efforts to upgrade its handicapped accessible bus shelters. At the time, MTA lacked the GPS technology needed to quickly map and assess the accessibility of the shelters in the face of looming legal action being brought by Americans with Disabilities Act (ADA) representatives.

The GPS-based project was successfully completed over a six-month period and was an excellent learning opportunity for the students, several of whom are now employed in GIS-related professions.

The workshop concluded with Padgett briefly describing some his current Urban Geography students' on-going projects using GIS and spatial analysis. Most of the students are social science majors, and most have had no prior GIS experience. "The learning curve is somewhat steep," Padgett emphasized, "but in the end they really see the value and necessity of diversifying their 'skill set' with GIS and related tools."

The workshop ended with a lively question and answer session, followed by a description of, and invitation to, the **SPACE 2005 Summer Workshops**. Participants snatched up all of Padgett's handouts!