

The potential pitfalls of Digital Media: SIUE STEM faculty fellow explores the intersection of technology usage and higher education

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EDWARDSVILLE - Technology is intertwined with most everything we do. That's especially true for current college students, often referred to as digital natives, who have grown up with devices constantly at their fingertips.

This population's media immersion prompts questions from academic scholars like Southern Illinois University Edwardsville's Undrah Baasanjav, PhD, assistant professor in the College of Arts and Sciences' Department of Mass Communications, who want to better understand the influence of digital technology on higher education students.

Baasanjav's research, "Digital Technology Experiences of SIUE Students and Mapping the Digital Technology Education Curriculum at SIUE," is being conducted through a 2018-19 faculty fellowship with the SIUE Center for Science, Technology, Engineering and Mathematics (STEM) Research, Education and Outreach.

The media scholar wants to know: what are college students' digital media use patterns? What are the implications of blending education and entertainment? How might educators best use digital natives' tendencies to streamline technology-related courses at SIUE?

"This project will strive to identify prevalent digital technology experiences of SIUE students and examine how these multifaceted digital practices contribute to or distract from their college education," Baasanjav explained. "Cognitive scientists and media scholars are increasingly concerned that young people's increased agility in visual literacy, spatial orientation and multitasking due to visual media on television, video games and the internet, might be coming at the expense of diminished ability in sustained long-time reading, deep reflection and inductive analysis."

Baasanjav's data shows current freshmen and sophomore students who comprised her sample spend an average of 3.34 hours a day on 4.4 different digital platforms, including Snapchat (86.5%), Pandora and Spotify (76.4%), Instagram (72.1%) and YouTube (72.1%).

This data will prove valuable for educators who use digital technology in their classes. Baasanjav aims to map digital media classes and curriculum at SIUE to streamline and synergize efforts in helping students.

"Projects that bridge STEM and social sciences or humanities, such as Dr. Baasanjav's study of students' personal experiences with digital media, bring new perspectives on how to teach STEM in ways that show its relevance to everyday life," said SIUE STEM Center Director Sharon Locke, PhD. "Her research is designed to shed light on what

technological capabilities, as well as gaps, exist among incoming SIUE freshmen. With this knowledge, faculty can better design courses, and in turn, students can bring those practical skills into the workforce, where they are highly valued by employers.”

“Media scholars acknowledge that young people’s engagement with digital technology has transformative potentials for creating collective knowledge and meaning,” Baasanjav noted. “This study suggests plausible digital media repertoires of college students and contributes to the debate between the technologically utopian and dystopian views of the role of digital and social media in students’ education, cognitive and civic development.”

“By understanding this media repertoire,” she added, “educators can help students reflect upon their media diets and habits, and understand digital media’s potentials and pitfalls. I believe in the shaping of technology for humanities, not the other way around.”

The STEM Faculty Research Fellows program provides funds that free up a portion of faculty time for testing classroom innovations, and gives access to the Center’s educational researchers to help assess student outcomes. STEM Center educational researchers also collaborate with the fellows to prepare proposals to external funding agencies for additional research and institutionalization of effective STEM education practices.

The STEM Faculty Research Fellows program welcomes applicants from any field who have innovative ideas for a project that could improve undergraduate STEM learning. A call for proposals is issued at the beginning of every spring semester for the fellowships for the following academic year.

The Southern Illinois University Edwardsville [Center for STEM Research, Education and Outreach](#) comprises an independent group of researchers and educators, innovating ways to engage students and the public in science, technology, engineering and math (STEM). Within the SIUE Graduate School, the Center brings together research faculty, graduate students and practitioners to conduct education research. The Center contributes educational expertise to SIUE undergraduate classes and provides professional development for K-12 teachers. The Center boasts a significant library of equipment and resources, which are available for loan at no cost to campus and regional instructors. For more information, visit <https://www.siu.edu/stem/about.shtml> or contact STEM Center Director Sharon Locke at (618) 650-3065 or stemcenter@siue.edu.