GIScience in a Hybrid Physical-Virtual World

Conventional geographic information systems (GIS), which are conceptually constrained due to its confinement to the concepts of Newtonian absolute space and physical place, have failed to properly consider humans as dynamic and living entities who carry out their activities in both physical and virtual spaces nowadays. There is an urgent need of moving geographic information science (GIScience) beyond the concept of absolute space to support research of human dynamics that is increasingly taking place in a hybrid physical-virtual world enabled by modern technologies. This talk presents a new GIScience framework that integrates various concepts of space (absolute space, relative space, relational space, and mental space) and place (location, locale, place identity, and sense of place) to better consider humans as dynamic and living entities. Examples will be provided to illustrate broader theoretical and practical implications of this framework to GIScience research as well as to GIS applications in other disciplines that face challenges of representing, analyzing, and visualizing human dynamics in an increasingly hybrid physical-virtual world.

Shih-Lung Shaw, Ph.D.

Chancellor's Professor & Alvin and Sally Beaman Professor
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Date: Monday, February 27, 2023
Time: 2:00 – 3:00 p.m. US Central Time
Location: **Blocker 220** (in person)
Online: 998 4499 3279 (ID) & 724615 (PWD)
Faculty host: Xinyue Ye, Urban AI Lab

Biography

Dr. Shih-Lung Shaw is Chancellor's Professor and Alvin and Sally Beaman Professor of Geography at the University of Tennessee, Knoxville. His research interests cover GIS for transportation, space-time GIS, time geography, transportation planning, and human dynamics. His recent research has focused on space-time analytics of human dynamics in a hybrid physical-virtual world. Dr. Shaw is an elected Fellow of the American Association for Advancement of Science (AAAS) and a recipient of Edward L. Ullman Award for Outstanding Contributions to Transportation Geography and Outstanding Scholar Award in Regional Development and Planning from the American Association of Geographers (AAG). He currently serves as the President of the University Consortium for Geographic Information Science (UCGIS) and is the lead editor of Springer's Human Dynamics in Smart Cities book series. He also served as Interim Associate Provost for International Education and Head of the Department of Geography at the University of Tennessee.

You can also click this link to join the seminar https://tamu.zoom.us/j/99844993279?pwd=TkJodWFVRURyMmkwakI4SWZGeVJTQT09