Space, Time, and Human Dynamics in GIScience

26 August 2021 (Thursday), 09:00-10:30 (UTC+8, HKT)

Abstract

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. There is an urgent need of moving beyond the concept of absolute space to support research of human dynamics that is increasingly taking place in a hybrid physical-virtual space enabled by modern technologies.

This presentation discusses a space-time GIS approach of representing human dynamics in a space-time context. It then presents a human-centered geographic information science (GIScience) framework, which integrates the concepts of absolute space, relative space, relational space, and mental space, to better support computational social science research.

Biography

Professor 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 transportation, time geography, space-time GIS, and human dynamics. He is an elected Fellow of the American Association for Advancement of Science (AAAS) and President-Elect of the University Consortium for Geographic Information Science (UCGIS).