



DEPARTMENT OF GEOGRAPHY & ENVIRONMENT PRESENTS:

HARVEY MILLER, PhD

Using AI and GIS to create virtual worlds from old maps



Thursday, October 1, 2026



Begins at 3:30pm (light refreshments after)



McKeller Room (290 UCC), University Community Centre (2nd floor)

BIOGRAPHY

Harvey J. Miller is the Bob and Mary Reusche Chair in Geographic Information Science, Professor of Geography and Director of the Center for Urban and Regional Analysis at The Ohio State University. Prof. Miller is author, co-author or editor of 200 scientific publications, including the influential books *Geographic Information Systems for Transportation: Principles and Applications* (Oxford) and *Geographic Data Mining and Knowledge Discovery*, 2nd edition (CRC Press).



Website: <https://u.osu.edu/miller.81/>

ABSTRACT

Advances in artificial intelligence (AI) and Geographic Information Science (GIS) enable researchers to unlock the rich historical information trapped in old maps. The Ghost Neighborhoods of Columbus project is applying AI and GIS to old Sanborn Fire Insurance maps to create immersive, virtual worlds of how neighborhoods in Columbus looked in the past, prior to urban highway construction and urban renewal projects. In this presentation, Dr. Miller will highlight the incredibly detailed data in these old fire insurance maps, the 3D virtual worlds they have built from these maps, and their partnership with the community to ensure the historical virtual worlds are authentic.