

The Singapore Historical Map Database: Opportunities and Challenges

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Place: Earth Lab (AS2 02-03), Department of Geography, NUS

Abstract

Many countries have built historical GIS (Geographic Information Systems) to provide a research framework for spatial temporal analysis. This seminar will show the progress of the implementation of Singapore historical GIS by the Dept. of Geography, NUS, and its research opportunities and challenges. To date, Singapore historical maps from 1828 to 2014 have been collected, scanned, and geo-rectified. Some spatial data will be provided through a Web GIS portal. The two main topics of this seminar will be how to share historical spatial data through the Web GIS portal, and how to facilitate research collaboration for spatial temporal analysis. In addition, applications will be introduced to demonstrate how the historical GIS can be utilized for spatial temporal analysis with quantitative and qualitative approaches. The applications will show that Singapore's landscapes have changed massively since the early maps of the island were produced. The visual comparison of historical maps using GIS improved the understanding of how landscape changes have influenced the function, the morphology, and the spatial relationship of places from a colonial city to a global city.

About the Speaker



Dr. KIM Ick-Hoi is a research fellow at the Department of Geography, NUS. He obtained his PhD in Geography from the joint doctoral program at San Diego State University and the University of California, Santa Barbara. His research areas include geospatial cyberinfrastructure with high-performance computing, big data analysis, Internet GIS, simulation modelling, historical GIS, and urban geography. His doctoral dissertation focused on the utilization of high-performance computing for GIS and the development of a parallel Schelling model for residential segregation simulations. His current research involves the historical GIS in Singapore, for which he is developing a Web GIS portal and conducting collaborative research on landscape changes in Singapore through the analysis of historical maps.

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