Geospatial Technologies for Decision Environments: 
Current and Future Opportunities 

by Dr. Raja Sengupta

Thursday, February 6, 2020 | 4 PM to 6 PM EST
Armstrong Building, Room 370, McGill - 3420 rue McTavish, Montreal

For Remote Participation, go to https://mcgill.webex.com/mcgill/j.php?
MTID=mbf0301bb938283fb67f416ec67384bda | Password: seminar

Seminar Abstract: This talk will cover the wide range of Geospatial technologies that exist to provide decision support for health management, understanding human interactions with biodiversity, and to reduce human-animal conflicts in national parks in order to manage emerging infectious diseases. These technologies include Location Allocation modelling, Geographically Weighted Regressions, and Agent-Based Models. Overall, the talk will provide an overview of toolkits that can be used by decision-makers to look at problems with a spatial perspective, and understand the unique geospatial environments within which these decisions have to be made. In particular, human-environment interaction that occurs within this spatial framework is highlighted.

Panel Discussion: Following the seminar, there will be a panel of disciplinary scientists from neuroscience, management, economics, and computational sciences. The moderator is Prof. L. Dube, Chair and Scientific Director, McGill Centre for the Convergence of Health and Economics (MCCHE).

Presenter: Raja Sengupta, PhD, is an Associate Professor of Geography & School of Environment, McGill University. His research interests center on Geographic Information Science (GIScience), and include Agent-Based Models (ABMs) and computational aspects surrounding the implementation of these models to understand both social and technology related issues. Recently, he has begun to look at how machine learning techniques can inform rule-generation for ABMs. Another aspect of his research looks at the emerging Smart Cities debate. Current projects in this area look at spatio-temporal variations in Urban Heat Island (UHI) effect through the use of a large network of low cost sensors. He is a Topic Editor for the ISPRS International Journal of Geoinformation, and an Editorial Board Member of Water International. He also is a review committee member for the GIScience, Spatial Knowledge and Information-Canada, and GEO Processing conference series.
Panelist: Louise Potvin is currently professor at the Department of Social and Preventive Medicine, School of Public Health (ESPUM), Université de Montréal. She is the Director of the Centre de recherche en santé publique, Université de Montréal and CIUSSS Centre-Sud-de-l’Île-de-Montréal. She holds the Canada Research Chair in Community Approaches and Health Inequalities. Her main research interests are Population Health Intervention Research and the role of social environments in the local production of health and health equity. In addition to having edited and co-edited 8 books, she has published more than 300 peer-reviewed articles, book chapters, and editorials. She is a globally elected member of the Executive Board of the International Union for Health Promotion and Education and the Editor-in-Chief of the Canadian Journal of Public Health. She is a Fellow of the Canadian Academy of Health Sciences. She received the 2017 Pierre-Dansereau Award from the Association canadienne française pour l’avancement des sciences (ACFAS) and the 2019 Canadian Institute of Health Research - Institute of Public and Population Health Trailblazer Award in the Senior research category.

Panelist: Vincent Dugré, Member of the board of director of the TCI Network, is a cluster practitioner and co-founder of BIVIZIO, a tech company specialized in digitization of ecosystems, cities, clusters and networks. With 20 years of international experience, he was previously Vice President of Operations at the Quebec Ground Transportation Cluster and currently he collaborates with Canadian and international clusters, universities, research centres and governmental agencies. Among others, Vincent was a Member Steering committee – Development of Quebec Mobility Cluster (Propulsion), and Co-designer and Cluster mapping lead (NRC Proteins Asset Mapping for Protein Industries Canada Supercluster and McGill U.).