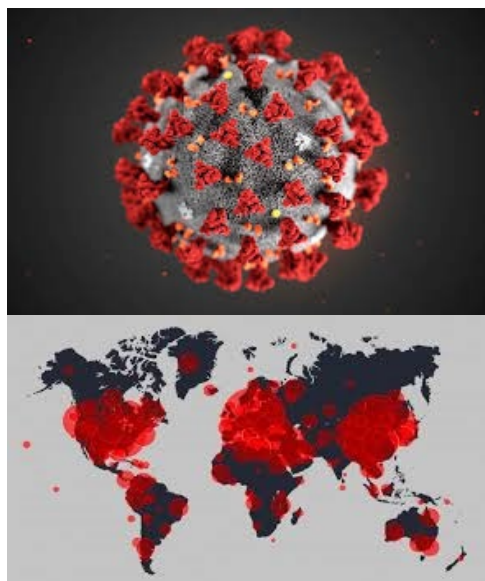


COVID – 19 : Geospatial Information and Community Resilience (Open Access)



New Edited Volume from:



UN GGIM Academic Network

Editors

Prof. Abbas Rajabifard
Dr. Daniel Páez
Irma Britton
Prof. Greg Foliente

The publisher and the editors invite expert authors to contribute chapters on topics related to COVID - 19

Scope:

While global communities and businesses are trying to respond to the **COVID-19 pandemic**, location information, mapping and GIS tools are widely used by health departments, safety and emergency management authorities and wider professionals around the world for gathering and analyzing data to support informed decisions. **The use of location intelligence and GIS for understanding this outbreak** and its relationship to infrastructure, population, businesses and other location-based information, requires both a clear understanding of the relevant geospatial principles and the relevant aspects of data monitoring, planning and mapping. This book aims at covering these **disciplinary intersections** that happen when GIS and location intelligence are used in action to respond to the crises and plans for recovery. The experiences and the information included in this book will be a learning tool for communities to being prepared, making the right decisions, and keeping informed to be able to improve community resilience and respond to **future crisis**.

Objectives:

This book will provide leading professionals and academic authors the opportunity to combine their observations, research, and best practices in their jurisdictions and organizations that are relevant to professional lines of work or supporting training and teaching modules focusing on COVID-19 applications. It will reassess the field, affirm successful approaches, and point to future possibilities. In doing so, the book will address the following objectives:

- **Review foundational aspects of geospatial** sciences and technologies for supporting intelligent decision-making for pandemic management.
- **Identify a coherent set of tools**, guidelines or standards to help researchers, data producers and practitioners and authorities utilize geospatial information for decision-making during various pandemic phases.
- **Provide a resource on current best practices** for utilizing location intelligence for local, regional, national and global level pandemic management.
- **Reflect on the lessons learnt from COVID-19 pandemic**, and present a forward-looking collection of ongoing research, development and practice, with an emphasis on the role of location and geospatial science, that can improve the resilience of community, society, economy and environment.
- **Listen and broadcast the challenges, solutions**, opinions and insights from industries regarding their experience through the pandemic.

Table of Contents

The proposed book will consist of 4 sections:

- The first section** will contain chapters that sets the scene and provide an overview of the principles and foundations for geospatial science and technologies. Chapters in this section could address topics including but not limited to: real-time/near real-time geospatial data collection and analysis, population trajectory tracking and reasoning, geodata fusion, location intelligence and decision-making, population behavior modelling and simulation, location-based service, remote sensing, drones (UAVs), spatial data infrastructure, etc.
- The second section** will consist of contributions that present current approaches to managing global data where use cases and best practices will be emphasized. This section will serve as a resource for data producers, managers and users to adopt current best practices in their own work for the pandemic management during prevention, preparation, response, and recovery phases.
- The third section** will consist of experiences and reflections obtained from the pandemic, as well as a forward-looking collection of ongoing development and future prospects across the entire spectrum of location and geospatial science, for building a more resilient community, society, economy and environment.
- The fourth and last section** is unique, which will contain the observations from various industries, the challenges they faced, the solutions they came across, the opinions and insights they had during this crisis. It will help build tight bonding between industries and academics and drive more industry-oriented research opportunities.

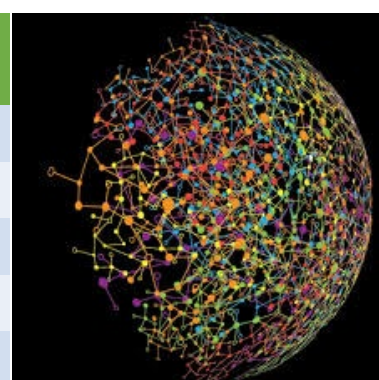
Possible Topic Areas:

- live geospatial data collection and analysis,
- big population trajectory tracking and reasoning,
- improving community resilience,
- geospatial data fusion,
- location intelligence and decision-making,
- population behaviour modelling and simulation,
- location-based service,
- multi source data integrations and visualizations,
- remote sensing,
- drones (UAVs),
- mobile application solutions,
- spatial-temporal analysis,
- situation and resilience analysis,
- impact analysis on community, society, economy and environment,
- community prevention, surveillance, risk assessment,
- early warning systems,
- rescue resources optimization.

Due to the complexity and inter-disciplinary nature of the subject matter, submissions of chapter proposals or observations from a wide range of disciplines and practice are highly welcome.

Submission and Important Dates:

Chapter proposal: Submit intention to contribute (Abstract, outline, and short bio)	10 May 2020
Book prospectus to publisher & Publishing Agreement	15 May 2020
Notification and invitation to submit full chapters	25 May 2020
Full chapter submission & Full manuscript for review	15 July 2020
Camera-ready manuscript	31 August 2020
Expected publication of the book	30 October 2020



Please direct any inquiries and submissions to: **Prof. Abbas Rajabifard** FIEAust, FSSSI
Chair UN-GGIM Academic Network / Director, Centre for SDIs and Land Administration
Melbourne School of Engineering / The University of Melbourne
E: abbas.r@unimelb.edu.au / T: +61 3 8344 0234