

 <p>Association for Computing Machinery</p>	<p>ACM Transactions on Internet Technology– Special Issue on Edge/Fog Computing for Infectious Disease Intelligence</p>
<p>Special Issue Guest Editors</p> <p>Prof. Kaijian Xia The Affiliated Changshu Hospital of Soochow University, Jiangsu, China. kjxia@suda.edu.cn</p> <p>Prof. Wenbing Zhao College of Engineering, Cleveland State University, USA. w.zhao1@csuohio.edu / wenbing@ieee.org</p> <p>Dr. Alireza Jolfaei Macquarie University, Australia. alireza.jolfaei@mq.edu.au</p> <p>Prof. Tamer Ozsu (TOIT Liaison) University of Waterloo, Ontario, Canada. tamer.ozsu@uwaterloo.ca</p>	<p>The big data on epidemiology, surveillance, prevention and control of infectious disease generated by biochemists, cell biology, and various molecular biology techniques have grown exponentially, and the nature of such data is increasingly more complex. This poses a great challenge on how to design a new infectious disease intelligence system for efficient data processing, analysis and modeling in medical research, pharmaceutical screening, and clinical applications. Infectious disease intelligence is now an open field to get advantageous use of machine learning and big data advances, and there are open challenges to provide systems that can be accurate enough to be useful for the infectious disease.</p> <p>Recently, fog/edge computing has become a promising paradigm for infectious disease. The basic idea is to leverage a multitude of cooperative fog/edge devices and near-user infrastructures to carry out a substantial amount of computation, storage, and communication for constructing a cyber-physical framework, hybrid intelligent system, etc. Despite fog/edge assistance offers many benefits and opportunities, there are several research and technical challenges that need attention from the research community, including how to design an intelligent fog/edge assisted urban infectious disease information collection and management framework, how to make textual and visual information retrieval more intelligent, how to build new fog/edge assisted information retrieval models or algorithms with sound empirical validation, how to design complex content analysis methods for infectious disease intelligence, and how to design fog/edge assisted computational models in infectious disease intelligence.</p> <p>This special issue wants to present a range of new directions in theories, models and ideas about infectious disease intelligence. The aim of this special issue is to draw out and examine new directions in infectious disease intelligence research. Subsequently, infectious disease intelligence is an interdisciplinary area of study that includes research from information science, computer science, human factors, wireless communications, and other information related disciplines.</p>
<p>Important Deadlines</p> <ul style="list-style-type: none"> • Manuscript submission: December 31, 2020 March 31, 2021 • First notification (no later than): March 31, 2021 June 31, 2021 • Submission of revision: September 30, 2021 • Final notification: November 30, 2021 	<p>Topics of interest to this special issue include, but are not limited to:</p> <ul style="list-style-type: none"> • Architectures and models for edge/fog assisted Infectious disease intelligence • Universal end-edge-cloud architecture assisted edge/fog computing for infectious diseases • Deployment and charging schemes for edge/fog device applications • Edge/fog computing in medical images • Edge/fog computing in mobile infectious disease intelligence systems • Intelligent prevention of infectious diseases using fog/edge computing • Emerging infectious disease informatics in social media using fog/edge computing • Intelligent control of infectious disease using edge/fog computing • Wearable medical equipment system using edge/fog computing • Early identification of infectious disease using edge/fog computing • Edge/fog assisted emerging urban services and applications • Security and privacy issues of infectious disease intelligence
<p>ACM TOIT Editor-in-Chief</p> <p>Prof. Ling Liu School of Computer Science, Georgia Institute of Technology ling.liu@cc.gatech.edu</p>	<p>Submission Instructions For author guidelines, please refer to: http://dl.acm.org/journal/toit/author-guidelines E-mail alias for this special issue: Edge/FogComputing@acm.org EasyChair link for paper registration: click here Paper submission will be through Manuscript Central. It will open one month before the paper submission deadline. Please select “Special Issue on Edge/Fog Computing for Infectious Disease Intelligence” when submitting.</p>