

Dr. Ferda Ofli



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Ferda Ofli is a Scientist at the Qatar Computing Research Institute (QCRI), part of Hamad Bin Khalifa University (HBKU). Prior to joining QCRI, he was a Postdoctoral Researcher in the Teleimmersion Laboratory at the University of California, Berkeley, CA, USA, from 2010 to 2014. He received the B.Sc. degrees both in electrical and electronics engineering and computer engineering, and the Ph.D. degree in electrical engineering from Koc University, Istanbul, Turkey, in 2005 and 2010, respectively. His research interests cover computer vision, machine learning and multimedia signal processing. In recent years, he primarily focuses on analyzing the imagery content in two fronts: (i) in a crisis informatics setting for automated damage assessment and disaster response using images collected from social media or captured by drones, and (ii) in a health informatics setting for understanding the dietary habits of individuals as well as populations using images from social media and the Web. He is an IEEE and ACM senior member with over 40 publications in refereed conferences and journals including CVPR, WACV, TMM, JBHI, and JVCI. He won the Elsevier JVCI best paper award in 2015, and IEEE SIU best student paper award in 2011. He also received the Graduate Studies Excellence Award in 2010 for outstanding academic achievement at Koc University.

Presentation Title

Using Aerial and Social Media Imagery for Augmenting Official Statistics

Abstract

The extensive use of social media platforms creates unique opportunities for many application domains including smart cities. Social media users post a wealth of information about the events happening around them, e.g., spreading news about traffic accidents and congestion, road blocks,

air pollution, crowd gatherings, among others. In parallel, aerial images obtained from drones and satellites provide a bird's eye view of cityscapes, providing complementary information for applications such as environmental protection, traffic monitoring, crowd management, and disaster response, all of which play significant roles in building sustainable cities and urban monitoring. Thanks to the recent advances in computer vision based on deep learning, many of these tasks can now potentially be performed automatically, from counting housing units in urban areas and counting crowds in social events to detecting camps in the desert, and to updating road network maps in near real time. In this talk, I will showcase research done at the Qatar Computing Research Institute that analyze these non-traditional data sources, and discuss how these methods could be used to augment official statistics.