

The 2019 International Training Workshop for Natural Disaster Reduction

- Applying Big Data¹ and Social Media² for Disaster Risk Reduction and Emergency Preparedness

Workshop 2 on Social Media: 25th -27th June, 2019

International Training Workshop for Natural Disaster Reduction (ITW) will host two three-day workshops in the first half of 2019 and major themes focus on big data and social media applications to assist in Disaster Risk Reduction and Emergency Preparedness. The two workshops demonstrate innovative applications of using the state-of-the art information and telecommunication technology to enhance coverage and efficiency of information facilitation.

As trans-boundary movements of goods and people grow rapidly and dynamically around the world, thus information and alerts of natural disasters or hazards based on big data and social media would provide the best approach to effectively integrate partnership between public and private sector to mitigate adverse impacts. Especially, modern technology speeds up development of telecommunications and shortens time to transfer data, and widen channels of message deliveries. At the information age, big data and crowdsourcing data not just facilitate trade activities and business operation, but also bring benefits to disaster risk reduction, emergency preparedness, business continuity planning, resilient global supply chain, critical infrastructure protection and tourism safety. From public sector to private industry or individuals, information generated from big data and crowdsourcing data is vital for strategy of disaster risk reduction, operation of emergency relief, planning for business continuity management and sustainable development of economy and livelihood.

The proposed workshop aims at: (1) To investigate current status of application and demands of data through a comprehensive survey; (2) To develop a roadmap of capacity building by demonstrating advanced technology and best practices; (3) To promote crowdsourcing data collected from social media for enriching contents of disaster risk management; (4) To formulate a mechanism sharing experiences to strengthen disaster resilience and emergency preparedness.

The workshop organizer also invites international experts and scholars to share new trends and the best practices of using big data and social media. The 2019 ITW does offer an interactive platform to engage international efforts and collaboration in making our society more disaster-resilient.

Workshop 2: Applying Social media in Disaster Reduction

25th -27th June, 2019

Two-way communications through social media become an efficient and effective channel to collect inputs and disseminate information. Compared with traditional sensor-based data, social media provides non-structural, real-time and direct responses to disaster managers. The input formats contributed by social media could be very diverse including texts, pictures, videos or live stream. No matter which one, it must be the most convenient or popular channels to report situations and emergencies.

Enhancing digital preparedness by social media for disaster risk reduction and emergency response is a new trend of evidence-based disaster management which offers the continuous and local information to test preparation and reaction conducted by the public sector.

In recent years, a test project carried by NCDR is designed to collect and analyze data crawled from major media which are popular in Taiwan. During processing the data produced by social media, it is very challenging to screen valuable information from overwhelming posts. For example, the result proves only two hundred posts are meaningful after collecting ten thousand messages automatically crawled by machine.

On the other hand, social media offer direct channels to reach end users to take actions in reducing possible reverse impacts by typhoons or floods. Since 2013, in order to further enhance information coverage during typhoon season, NCDR has been helping to introduce the Common Alerting Protocol (CAP) to standardize disaster alerts issued by both public and private sectors. CAP is an international standard to transmit disaster relevant information with rich contents for receivers or end users to take actions.

All CAP-format alerts are shared and displayed through Google services including Google Crisis Map, Google Alerts and Google Now. Now NCDR works a non-profit collaboration with LINE on disaster alert dissemination. The collaboration allows users to subscribe specific and location based alerts and receive instant updates. Within 11 months, over 1 million users subscribed the service.

Workshop 2 will focus on all innovative applications of social media in helping disaster risk management and emergency preparedness. Case studies of individual social media are to be presented by invited speakers. Through sharing and discussing, all participants will also join brainstorming in what and how to define effective two-way risk communications through social media.

AGENDA
The 2019 International Training Workshop for Natural Disaster Reduction
- Applying Social media in Disaster Reduction
25th -27th June, 2019

June 25 (Day 1) Application of Social Media and Government	
08:30~09:00	Registration
09:00~09:15	Opening Remarks
09:15~09:20	Group Photo
09:20~10:10	Keynote1: Innovative Usage on LINE and How to Leverage Social Media in Disaster Management Business. Director Aaron Wu, Platform Business, LINE Taiwan
Coffee Break	
10:30~11:20	Keynote2: Utilize Social Media to Build a Real-time Disaster Management System Prof. Ming-Hsiang Tsou. Geography Department, San Diego State University, The United States
11:20~12:10	Keynote3: The challenge of utilizing social media for evacuation and sheltering support - Application example during natural disaster in Japan and new development of chatbot for disaster prevention- Dr. Yuichiro Usuda, Director-General, Center for Comprehensive Management of Disaster Information, NIED, Japan
Lunch	
13:30~14:20	Keynote4: Social media and data for good Max Chen, Public Policy Manager, Facebook Inc.
14:20~15:10	Keynote5: Information Extraction for Event or Activity Monitoring on Social Media Prof. Chia-Hui Chang, Department of Computer Science and Information Engineering, National Central University, Taiwan
Coffee Break	
15:30~16:30	Keynote6: NCDR – Social Disaster Situation Integration and Applications Dr. Chih-Hao Liu, NCDR, Taiwan
Welcome Reception	

June 26 (Day 2) Social Media Web Crawler Application	
09:00~09:50	Keynote 1: Characteristics and approaches to link champions on local social media Prof. Willie Li-Wei Yang, Adjunct Assistant Professor, Department of Business Administration, National Taiwan University
09:50~10:40	Keynote 2: Survey 123 & Collector for Integrating Disaster Information Dr. Lan Lee, Interactive Digital Technologies Inc., Taiwan
Coffee Break	
11:00~11:50	Keynote 3: Application of crowdsourcing - Local-Wiki Dr. Dong-Po Deng, GeoThings Inc., Taiwan
Lunch	
13:30~14:20	Keynote 4: Use of Social Media for Raising Public Awareness on Disaster Risk Reduction Director Bill Ho, Strategic Planning, Asian Disaster Preparedness Center (ADPC) Ms. Nusrat Rehman Rana, Communications Manager, Asian Disaster Preparedness Center (ADPC)
14:20~15:10	Keynote 5: Strategy and Methodology for Data Analysis from Social Media-Geographic Information Extraction Prof. Chiao-Ling Kuo, Research Center for Humanities and Social Sciences, Academia Sinica, Taiwan
Coffee Break	
15:30~16:30	Keynote 6: Applications of Disaster Warning Alerts with Social Channels Dr. Tzu-Yin Chang, NCDR, Taiwan

June 27 (Day 3) The Novel Application of Social Media	
09:00~11:50	Field visit: Chunghwa Telecom
Lunch	
13:30~15:00	Field visit: Center Emergency Operation Center (CEOC)
Coffee Break	
15:20~16:30	Group Discussion & Report
16:30~17:00	Conclusions and Closing
Closing Ceremony & Dinner	