MARVAND: Mobile Application for Relief Volunteering Activity after Natural Disaster
Sung Pil Moon, Tianjiao Liu , Powit Rungsangthiwakorn , Bomi Kim , and Mark S. Pfaff
IU School of Informatics, Indianapolis.

Modern technologies play significant roles in the natural disaster domain. Current services focus mostly on providing information, recruiting volunteers, and donating money and goods, butless on supporting the activities of on-site volunteers. Our preliminary interviews showed that there are not enough experts on hand to help support on-site volunteers, and it is difficult to keep track of whether help requests have been met. To fill this gap, we proposed a MARVAND, utilizing LBS, with three main features: 'Instant Crowd Knowledge' providing access to remote experts using crowdsourcing; 'Volunteer Radar' providing awareness of other volunteers nearby; and 'Reunite Missing Family Members' helping reunite families who have been separated as a result of the disaster. The results of the evaluations with twelve participants who had experience in disaster relief volunteering activities demonstrated that the MARVAND could support activities of onsite volunteers after the natural disaster, and serve as an additional communication channel between volunteers and experts.

Advisor: Mark S. Pfaff, IU School of Informatics, Indianapolis