Understanding Disaster Related Information-Seeking Behavior Using Oral Documents

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The 2011 Great East Japan Earthquake was one of the largest earthquakes ever recorded in Japan's history. Catastrophes destroy many critical infrastructures. Immediately, people experiences information disruption within their community, as well as between the outside world. The inability of communication due to physical or virtual barriers instigates instant isolation. Therefore, understanding how individuals sought for information during such a disaster situation is a very important topic in Crisis Informatics.

We present datasets and findings from the analyses of three oral documents which include the published records of local governments, power companies, news media, and local people. We examine two datasets; timeline datasets and behavior datasets. Timeline consist of 353 annotations to analyze information pathways such as information flows and dissemination. A total of 376 annotation was identified to examine information needs, sources and channels of local people's information seeking behavior during event. Oral documents gave us a richer contextual description of information-seeking behavior during the disaster, when compared to online activity analysis such as Twitter.

Our findings shows many of the disaster-related information-seeking challenges include the relative importance of passive and active information needs, channels, and sources. People experiencing of uncertainty due to a lack of specific information through many devices. While official, authoritative sources are important. the 2011 Great East Japan Earthquake and Tsunami showed that informal, trusted social sources such as family, friends, and neighborhoods are often more critical as the first sources of warning information that is relevant to the location and circumstances of the local resident. Therefore, residents act as information sources as well as information seekers. Although most of our findings is based on a small sample skewed toward regional areas and were selected by convenience sampling methods, it added new insights into the disaster-related information-seeking behavior. A longitudinal study is required to confirm or refute findings.

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