

# GSAPS THE SUMMARY OF DOCTORAL THESIS

## The Role and Effects of Mass and Social Media in Post-Disaster Recovery

### - A Case Study of the Great East Japan Earthquake

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On the 11<sup>th</sup> Mar, 2011, the north-east coast of Japan was struck by the Great East Japan Earthquake - one of the strongest earthquakes in recent history. On top of the unprecedented scale of the damage, another very remarkable aspect of this disaster is the role ICT and media had played. After the disaster, when the traditional telephone network was paralysed, Internet, in particular social media provided the critical communication platform for many people, and had mediated the experience of the disaster across the world like never seen before. The critical role social media played after the disaster had changed the way many people perceived them. For instance, many began to embrace social media as an important alternative information source and communication platform (Slater et al., 2012). That being said, while social media attracted most of people's attention, reports have shown that traditional mass media (e.g., television) were still regarded as the most trusted and reliable information source for the public.

In a crisis situation, people's dependency on media tends to increase, and hence media's influences on the public are often intensified. Indeed, a study by Mitomo et al. (2012) has found that after the disaster, information from both mass and social media had motivated many people to carry out post-disaster activities even though they were not in the disaster area. Now, more than 3 years have passed since the disaster, most of the infrastructures destroyed by the disaster are restored and life for most people have returned to normal. However, for those that are still living in the disaster area, the road of recovery is still very long. One must then wonder, as both media had played such an important role after the disaster, as time passes, can they also contribute to the recovery in the long run? In particular, what are their effects (if any) in post-disaster recovery and how do they work? Especially in a highly mediated society such as Japan, whereas media are ubiquitous and information comes and goes in a rapid pace. Currently, no direct answer to this question can be found because of two main reasons. First, large scale nature disaster does not occur too often, and second, the media environment is changing in a rapid pace, i.e., suitable case studies are few and far between. In fact, it can be said that the Great East Japan Earthquake was the first time in history that such a highly mediated society is struck by such a large scale natural disaster. Thus, currently there is a knowledge gap between the use of mass and social media and their effects in post-disaster recovery. With this background in mind, this thesis sets off to investigate the abovementioned research question. The aim is that using the Great East Japan Earthquake as case study to derive some practical implications that can contribute to both post-disaster recovery and academia.

The first challenge is how to evaluate the effects of mass and social media in a highly mediated society, specifically considering that although they are very different by nature, but at the same time, driven by ICT, they are also highly intertwined. In order to address this, a theoretical framework is developed to incorporate theories from the two widely adopted perspectives in media studies - the active audience and passive audience perspectives (Biocca, 1988) to analyse the effects of mass and social media in post-disaster recovery. Social capital is selected as the proxy to represent the capacity of post-disaster recovery as studies on the recovery of previous disasters have found that it is one of the most crucial elements for long term

post-disaster recovery (e.g., Aldrich, 2012). Based on this framework, a three-part empirical analysis is developed. The first two parts adopt the uses and gratification and cultivation theories from the two perspectives respectively. The data set was collected from an Internet survey conducted in Mar 2013 with 2,000 samples from the three prefectures that were directly hit by the disaster. Although they have taken a different perspective, the findings from both parts have revealed a consistent pattern that mass and social media can create positive effects on the development of social capital elements such as bonding trust, bridging networks and civic participation. These effects are mediated by online civic participation and people's perception of the disaster which both can be driven by the use of mass and social media. In addition, it is also found that the two media can interact with one another to strengthen their effects. Hence, considering that further understanding on how the two media interact with each other in practice will strengthen the implications of the findings, the third part of the analysis is established to further investigate the effects of the convergence and interactivity between the two media. Using another data set collected in Mar 2014, it is found that both media indeed are highly interactive. For instance, known as 'simultaneous multi-screening', many people now watch television and access social media (e.g., using smartphone) at same time. Such interactivity links up the two media in real time and offers great potential to increase people's level of civic awareness and engagement.

In conclusion, the three-part analysis has shown that mass and social media can contribute to post-disaster recovery by creating positive effects on social capital. That is, while many people were motivated by information from mass media which had strongly influenced their perceptions of the disaster, social media provided them the platform to participate in recovery activities online. Through these interactions with the media, many had become more eager and engaged to support the recovery. These findings have important implications for NGOs as well as government authorities that are working on the recovery, in particular on the utilisation of both media to increase the public's awareness of the recovery and their participation to support the disaster victims, as well as to promote the relevant policies. Finally, using the Great East Japan Earthquake as case study, this thesis contributes to academia by providing the empirical evidence of the role and effects of mass and social media in post-disaster recovery, as well as establishing the foundation for future studies in this area.

#### References

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