**Introduction**

***Disaster***

According to a report of the United Nations International Strategy for Disaster Reduction (UNISDR) Scientific and Technical Advisory Group, disasters have destroyed lives, properties, and livelihood across the world. Just between 2000 and 2012, about 2 million people have died during disasters and an estimated US$ 1.7 trillion in damages have been recorded. In the same report, the UNISDR posits the use and research of new scientific and technological advancements in disaster management (Southgate et al., 2013).

Use infographics to convey information

***The use of social media***

Social media play a vital role in disaster management. For example, after the Haiti earthquake in 2010, numerous posts and photos were published in various social media sites. Just 48 hours later, the Red Cross has raised US$8 million. Social media have also enabled the generation of community crisis maps and interagency maps. They are maps that work as intermediaries between the public and relief organizations (Gao, Barbier & Goolsby, 2011). Patrick Meier, a crisis mapper, makes use of social media to improve the efficiency of relief efforts. He launched the website MicroMappers[[1]](#footnote-1), that quickly sorts through online data, from tweets to uploaded photos, and then displays the information on satellite maps, to assist in relief efforts during the disaster of Super Typhoon Haiyan (also called Yolanda) in the Philippines (Howard, 2013). To illustrate further how social media are significantly regarded, in a study commissioned by the American Red Cross[[2]](#footnote-2), it was revealed that 74% of the respondents expect response agencies to answer social media calls for help within an hour.

Introduce Twitter and what it is all about.

**How we solve the problem using social media**

Introduce FILIET

**Objective**

To develop an information extraction system that extracts relevant relief effort information from disaster-related tweets.

**Significance of the Thesis**

Being the social media capital of the world, there are a lot of valuable information that could not be tapped (kasi sobrang daming data).

First, respective stakeholders can collect disaster-related information in a way that is less strict because with an information extraction system built for the two languages, stakeholders can effortlessly accept and process information that are written in a much more natural and open way. With this, they can reach out to more people and to more places because they can have a system that can extract information from how Filipinos speak and communicate through the different social media platforms available, and to be specific, in Twitter.

Second, with an information extraction system, respective stakeholders can easily make use of the information that is written in the format of the different variations of the languages like the ‘TXTSPK’ and ‘Code Switching’. With a custom-built information extraction algorithm, the information extraction system was able to increase the probability of accurately and precisely extracting relevant information.

Third, the information that can be extracted from Twitter can be further utilized to help in disaster relief efforts. With a system that can further categorize tweets automatically can help in extracting more straightforward and meaningful information about the current state of disasters. Certain types of tweets can indicate a specific set of relevant information that can be extracted. Take, for instance, Disaster Information Tweets. Information that can be extracted from this kind of tweets can include, but not limited to, the type of disaster, location of disaster and etc. Or take, for instance, Casualty Report Tweets. Information like the number of casualties or the names of missing people can be extracted from this type of tweets.

Lastly, with an information extraction system that can organize the extracted relevant information, respective stakeholders can now expedite the process of conducting relief operations since they can be presented with information that has already been processed to be easily read and understood by the normal people. With this information extraction system, the process of consolidating necessary relevant disaster-related information can be more intuitive and faster.

For Video Only:

Add the process of the extraction

1. MicroMappers digital disaster response system. http://micromappers.com/ [↑](#footnote-ref-1)
2. The American Red Cross, *Web Users Increasingly Rely on Social Media to Seek Help in a Disaster*, Press Release, Washington, DC, August 9, 2010. http://newsroom.redcross.org/2010/08/09/press-release-web-users-increasingly-rely-on-social-media-to-seek-help-in-a-disaster/ [↑](#footnote-ref-2)