



Reference document on social media for disaster risk management

A document for implementing or enhancing the use
of social media for Disaster Risk Management
purposes

Table of contents

Definition of social media terms.....	2
Preface	6
Introduction: The need for dynamic Communication during disasters.....	7
The use and growth of social media	8
Chapter 1: Why social media is a necessary information tool during a disaster.....	10
The positives and negatives of social media.....	14
Types of Social Media and their application to DRM.....	16
Chapter 2: The four phases of Disaster Risk Management and their use in social media.....	17
Prevention and mitigation phase.....	18
Preparedness phase.....	20
Relief and Response phase	23
Recovery phase.....	26
Social media uses in disasters.....	29
Chapter 3: Elements of a social media strategy.....	30
Social Media Strategy Outline.....	30
Implementing the social media strategy into an existing communication plan.....	33
Social Media Strategy Completed Outline.....	34
Contingency planning in case of a power out.....	35
Chapter 4: Advantages/Disadvantages of the different types of Social Media.....	35
ANNEX 1: Practical social media examples and uses	37
The hash tag (#).....	37
The use of the “@” sign on Twitter	38
Posting Examples	39
Facebook:.....	39
Twitter:.....	39
Instagram:	40
How to measure the effectiveness of a social media strategy	40
Popular forms of social media	45
Useful tools to help manage social media	45
ANNEX 2: List of verified social media channels per country and ICT applications for Disaster Risk Managment.....	46

[Upcoming Case studies to be featured throughout the document:]	49
Extended Case Study Examples	51

Definition of social media terms

App install attempts: Clicks to install an app via the Tweet's Card

App opens: Clicks to open an app via the Tweet's Card

Detail expands: Clicks on the Tweet to view more details

Embedded media clicks: Clicks to view a photo or video in the Tweet

Engagements: Total number of times a user interacted with a Tweet. Clicks anywhere on the Tweet, including retweets, replies, follows, favorites, links, cards, hashtags, embedded media, username, profile photo, or Tweet expansion

Engagement rate: Number of engagements divided by impressions

Favorites: Times a user favorited the Tweet

Follows: Times a user followed the user directly from the Tweet

Hashtag clicks: Clicks on hashtag(s) in the Tweet

Impressions: Times a user is served a Tweet in timeline or search results

Leads submitted: Times a user submitted his/her info via Lead Generation Card in the Tweet

Link clicks: Clicks on a URL or Card in the Tweet

Periscope – A live video streaming platform owned by Twitter that lets the user stream live videos. After a broadcast, other users can watch the replay and provide feedback within Periscope for up to 24 hours. After that, the broadcast is removed from the app.

Permalink clicks: Clicks on the Tweet permalink (desktop only)

Replies: Times a user replied to the Tweet

Retweets: Times a user retweeted the Tweet

Shared via email: Times a user emailed the Tweet to someone

User profile clicks: Clicks on the name, @handle, or profile photo of the Tweet author

Facebook - Facebook is a popular free social networking website that allows registered users to create profiles, upload photos and video, send messages and keep in touch with friends, family and colleagues.

Favorite – On Twitter, a saved social media post that enables quick access in future.

Flickr – is a photo-sharing and hosting service. It supports an active community where people can share and explore each other's photos. Users can share and host hundreds pictures on Flickr without cost.

Follower - On Twitter, blogs, and other social media sites, a follower is someone who subscribes to receive the users updates.

Geotag - A geotag is the directional coordinates that can be attached to a piece of content online. For example, Instagram users often use geotagging to highlight the location in which their photo was taken.

GIF - GIF is an acronym for Graphics Interchange Format. In social media, GIFs serve as small-scale animations and film clips.

Handle - Handle is the term used to describe someone's @username on Twitter.

Hashtag - a word or phrase preceded by a hash or pound sign (#) and used to identify messages on a specific topic. "Spammers often broadcast tweets with popular hashtags even if the tweet has nothing to do with them."

Header image - A header image refers to the large photo displayed at the top of your profile on Twitter. The header image is also commonly referred to as the banner image on LinkedIn or the cover image on Facebook.

Hangout - A Hangout is a video service on Google+ that allows you to video chat with up to 10 Google+ users at a time. You can name these chats, watch YouTube videos during them, open a Google Doc with colleagues, and much more.

HTML - HyperText Markup Language (HTML) is a programming language for web pages. Think of HTML as the brick-and-mortar of pages on the web. It provides content and structure while CSS supplies style.

Instagram - online mobile photo-sharing, video-sharing and social networking service that enables its users to take pictures and videos, and share them on a variety of social networking platforms, such as Facebook, Twitter, Tumblr and Flickr.

Klout - Klout is a measure of social influence. The service allows users to connect various social accounts such as Facebook, Flickr, YouTube, etc., and then provides every user with his or her Klout score.

Listed - The act of being "listed" on Twitter refers to when a user curates a custom list of Twitter users to more easily keep tabs on their tweets.

Live streaming - Live streaming is the act of delivering content over the internet in real-time. This term was popularized in social media by apps such as Meerkat and Periscope.

Meme - A meme on the internet is used to describe a thought, idea, joke, or concept that's widely shared online. It is typically an image with text above and below it, but can also come in video and link form.

Mention - A mention is a Twitter term used to describe an instance in which a user includes someone else's @username in their tweet to attribute a piece of content or start a discussion.

Microblog - a social media site to which a user makes short, frequent posts.

Microblogging - the activity or practice of making short, frequent posts to a microblog.

News Feed - A news feed is literally a feed full of news. On Facebook, the News Feed is the homepage of users' accounts where they can see all the latest updates from their friends. The news feed on Twitter is called Timeline.

Podcast - A podcast is a series of digital media files, usually audio, that are released episodically and often downloaded through an RSS feed.

Pocket - Pocket is an app that enables users to manage a reading list of articles they've saved from the internet to read later. Pocket has an open API that allows it to integrate with over 500 applications including social networks like Twitter.

Post – An online submission to a person's social media account that is publically available.

PPC - PPC is an acronym for pay per click. Pay per click is an online advertising model in which advertisers display ads on various websites or search engines and pay when a visitor clicks through. Bid-based PPC involves an auction in which advertisers compete with other advertisers by setting the max bid -- or highest amount they're willing to pay -- for each click. Each time a visitor triggers the ad spot, the auction process pans out to select which ad will be displayed.

Quantcast - Quantcast provides website traffic and demographics for websites. The tool is primarily used by online advertisers looking to target specific demographics.

Real-Time Search - Real-time search is the method of indexing content being published online into search engine results with virtually no delay.

Reply - A reply is a Twitter action that allows a user to respond to a tweet through a separate tweet that begins with the other user's @username. This differs from a mention, because tweets that start with an @username only appears in the timelines of users who follow both parties.

Retargeting - Retargeting is an online marketing and advertising technique that allows marketers to display ads to people who have visited their website or are part of their contacts database.

Retweet – On Twitter, a repost or forward of a message posted by another user.

RSS Feed - RSS is a family of web feed formats used to publish frequently updated content such as blogs and videos in a standardized format. Content publishers can syndicate a feed, which allows users to subscribe to the content and read it when they please from a location other than the website (such as Feedly or other RSS readers).

RSS Reader - An RSS reader allows users to aggregate articles from multiple websites into one place using RSS feeds. The purpose of these aggregators is to allow for a faster and more efficient information consumption.

Search Engine Optimization - Search engine optimization is the process of improving the volume or quality of unpaid traffic to a website from search engines.

Share – Taking someone else's post and adding it to your social media wall/feed.

Shareability - the extent to which information is shareable. Information has high shareability if it is easy to share between different individuals without loss of fidelity.

Snapchat – a video a photo sharing application that lets users share photos to a select group of recipients. Users can set a time limit on messages that cause them to disappear very soon after opening.

Social Media Monitoring - Social media monitoring is a process of monitoring and responding to mentions related to a business that occur in social media.

Tag or tagging - A tag is a keyword or phrase used to group a collection of content together, or to assign a piece of content to a specific person.

Traffic – The amount of people visiting a website at a given time. "Our website traffic increased immensely during the earthquake."

Tumblr – a microblogging platform that allows users to post multimedia and other content to a short-form blog. Users can follow other users' blogs, as well as make their blogs private.

Trending Topic - Trending topics refer to the most talked about topics and hashtags on a social media network. These commonly appear on networks like Twitter and Facebook and serve as clickable links in which users can either click through to join the conversation or simply browse the related content.

Tweet - a posting made on the social media website Twitter.

Tweetdeck - Tweetdeck is a Twitter tool that provides users with a way to manage their Twitter presence through custom columns. The platform integrates with the Twitter API to allow users to both send and receive tweets.

Tweepi - Tweepi is a social media management tool that provides users with a platform for simplifying the way they manage their social following. It's typically used for mass following or unfollowing a group of people based on certain criteria.

Twitter - Twitter is an online social networking service that enables users to send and read short 140-character messages called "tweets."

User-Generated Content - User-generated content is content -- blogs, videos, photos, quotes, etc. -- that is created by consumers. Marketers typically tap into their audience in an online setting to collect this type of content to support a campaign or initiative.

Vine -- a video sharing tool that allows users to take six second videos, or combine a number of short videos to create an entirely new six second video. Videos are viewable directly in Twitter's timeline.

Viral - Viral is a term used to describe an instance in which a piece of content -- YouTube video, blog article, photo, etc. -- achieves noteworthy awareness. Viral distribution relies heavily on word of mouth and the frequent sharing of one particular piece of content all over the internet.

Webinar - A webinar is an online seminar or presentation that is hosted by an individual or a company. Most often, the host requires attendees to fill out a form before granting them access to stream the audio and slides. In marketing, webinars are held to educate audiences about a particular topic while opening up the floor for a discussion to occur on social media using the webinar's unique hashtag.

Preface

The Asian and Pacific Training Centre for Information and Communication Technology for Development in partnership with the Asian Disaster Preparedness Center created this document to highlight the potential use of social media in disaster risk management. Facebook and Twitter are the two social media platforms primarily focused on throughout the document. While others are mentioned, the lessons proposed, such as identifying an audience and developing a social media strategy, can be applied other social media platforms based on the goals of the user. Facebook and Twitter are the primary focus due to their widespread use and because they are already being used for disaster risk management purposes.

The document is meant to teach government personnel with the authority to create, or work with others to create, a social media strategy that compliments the existing communication strategy within their government body. The reader should also be prepared to begin posting on social media, or delegate the responsibility to someone who can fulfill the role while using this document as a reference.

The individual using this document should already have a basic understanding of Information Technology, social media and disaster risk management.

For a background on the above topics **Module 9 - ICT for Disaster Risk Management** and **Module 11 - Social Media for Development** can be used as a reference and will be referred to throughout the document.

Introduction: The need for dynamic Communication during disasters

Information is critical during a disaster. It's what enables informed decision making and the confidence to take action. This ability to act is crucial in the time leading up to, during, and after a disaster. In many cases, it can mean life or death.

Information is known as the most valuable commodity during a disaster, but the ability to spread information is just as important. During a disaster the situation changes incredibly fast and new information is constantly being produced. Hazard zones quickly become more dangerous, shelters reach capacity, and evacuation routes get congested. This new information is generated so fast that traditional communication means (television, newspapers and radio) struggle to keep up in real time. This is where social media can be used very effectively as a dynamic tool to share information.

The information flow of social media can be extremely fast paced which gives it the ability to keep up with disaster events. Smart phones enable people to share text and photos in real-time creating a far reaching network of information that can be tapped into. During a disaster the networks users create via their information sharing can be a crucial source of information to collect information on disaster impacts.

The real time advantage of social media can be viewed as a double edged sword. The potential is great, but users must act responsibly ensuring that the information shared is presented accurately. Similarly, those that share information from others on social media must first analyze it to make sure it's accurate. To understand how to better identify accurate information on social media please refer to **Module 11 - Social Media for Development**.

While information is shared naturally, a call from officials requesting information can be broadcast to the public via social media motivating them to share useful information such as the weather in a specific area. This content can then be acted upon and shared to ensure the most up-to-date information is available regarding bad weather or other events.

Similarly, if officials have a pre-existing strategy they will know exactly how to utilize social media to spread and gather important information related to disasters. The strategy can outline the target audience, what type of information to post specific to that audience, and who is responsible for posting and how often.

Social media is a dynamic communication tool that can and should be utilized during disaster events because it is the only form of information dynamic enough to handle the vast amount of information during these events. The listening ability also makes it a useful two way communication tool for disaster management during all phases of disaster risk management.

The use and growth of social media

Social media has been growing in popularity since the first website appeared in 1997.¹ Since then, social media has remained true to its roots by connecting individuals digitally. This connection does not always involve networking in the classic case, defined by meeting new people, but by maintaining relationships with people users already know through the sharing of information².

This connection and information exchange through established social networks is the real value of social media and the reason for its expansion to the realm of nontraditional practices (in relation to what it was created for) like disaster risk management.

“As communication technology diversifies and proliferates, social media (Facebook, Twitter, etc.) are increasingly used to convey information during crises to send warnings, to conduct situational awareness, and even to catalyze action and sustain dialogs and feedback loops among public authorities, volunteer groups, the business sector and citizens.³”

In a study of 24 emerging and developing nations by Pew Research Center in 2014, once people have access to the internet they tend to use social media.⁴

This opportunity for governments to utilize two-way communication allows them to generate appropriate messages through the different phases of disaster risk management, and listen to their population and prioritize efforts accordingly.

The most popular social network site in the world is Facebook with 1.49 billion users taking advantage of the many uses it provides including easy networking, instant communication, marketing and promotion options and quick access to social networks via computer, tablet or mobile device.⁵

Twitter, a popular a microblogging site, lets users express a moment or idea that contains text, photos, videos and links. Millions of these messages, known as tweets, are shared in real time every day.⁶ This ability to share information in real time is one of the reasons why it's so useful in sharing news, specifically breaking news, and information related to disasters.

¹ Danah M. Boyd & Nicole B. Ellison. (December 2007) *Social Network Sites: Definition, History, and Scholarship, Volume 13, Issue 1*. Retrieved from <http://www.danah.org/papers/JCMCIIntro.pdf>

² Ibid.

³ Wendling, C., J. Radisch and S. Jacobzone (2013), “The Use of Social Media in Risk and Crisis Communication”, OECD Working Papers on Public Governance, No. 24, OECD Publishing. <http://dx.doi.org/10.1787/5k3v01fskp9s-en>

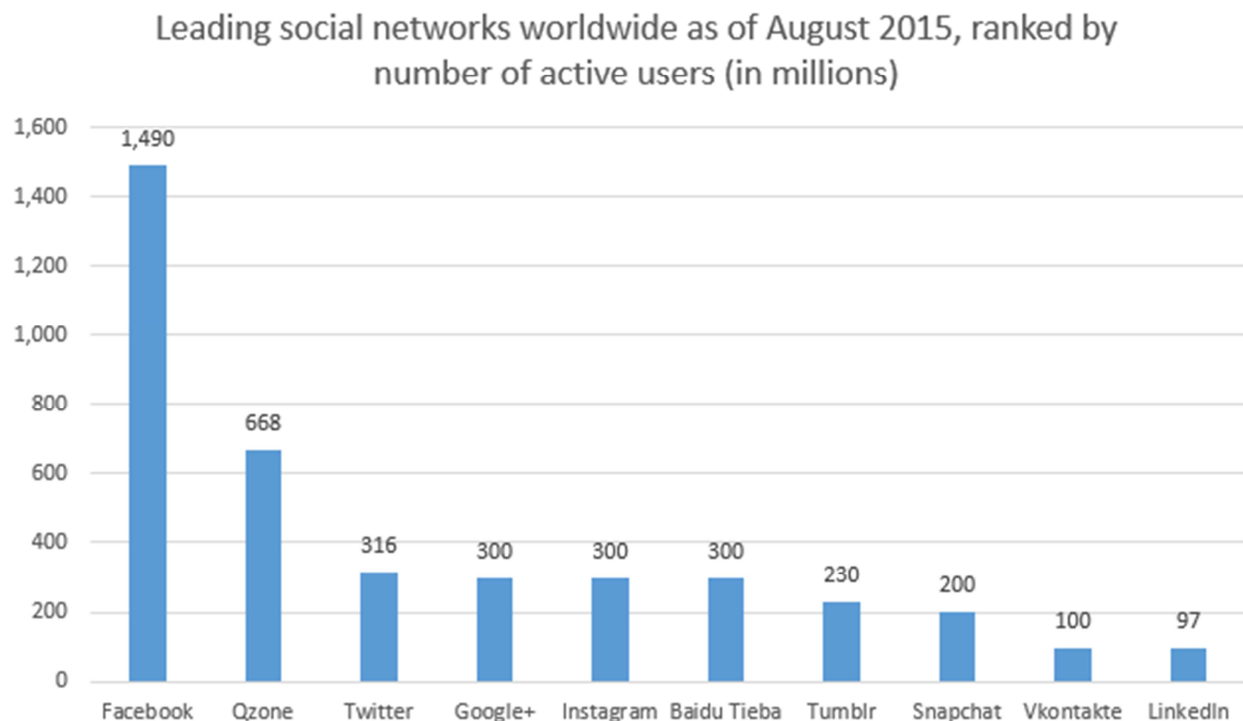
⁴ Neil Dufty. 2014. "A review of the value of social media in countrywide disaster risk reduction public awareness strategies" Input paper developed for the HFA Thematic Review and as an input to the Global Assessment Report on Disaster Risk Reduction 2015 (GAR15)
Available at: http://works.bepress.com/neil_dufty/34

⁵ Elizabeth Smith, Demand Media “What Does Facebook Offer” 2015. Hearst Newspapers, LLC. Retrieved from <http://smallbusiness.chron.com/facebook-offer-63447.html>

⁶ Twitter. “What is a Tweet,” 2015 Twitter. Received from <https://about.twitter.com/what-is-twitter/story-of-a-tweet>

While the most popular social media sites vary by country, the most popular social media websites worldwide are found in image 1. Consequently, Facebook and Twitter are the top two sites as far as users and are most commonly used for disaster risk management efforts due to their popularity.

Image 1⁷:



Information received from Statista, the graph has been modified to not include social services limited to chatting

Despite the number of social media users being so high, growth is still occurring. In the Asia Pacific, among other places, and from January 2014 to March 2014 there were 180 million more internet users, 118 million more active social media users, 375 million more mobile connections and 219 million more active mobile social media users.⁸ By 2018, Statista projects the number of total social media users to reach 2.44 billion.⁹

For more information on social media uses, benefits and risks please refer to and **Module 11 - Social Media for Development**.

⁷ Statista, Leading social networks worldwide as of August 2015, ranked by number of active users (in millions), August 2015. Retrieved from: <http://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/>

⁸ Simon Kemp, "Digital, Social and Mobile in APAC 2015: We are Social's & IAB Singapore's compendium of Asia-Pacific Digital Statistics," page 23. March 2015. Retrieved from http://www.slideshare.net/wearesocialsg/digital-social-mobile-in-apac-in-2015?qid=4d5173ca-e019-4bc5-939f-fecf8be44f95&v=qf1&b=&from_search=3

⁹ Statista, Number of social network users worldwide from 2010 to 2018 (in billions), November 2013. Retrieved from: <http://www.statista.com/statistics/278414/number-of-worldwide-social-network-users/>

Chapter 1: Why social media is a necessary information tool during a disaster

Social media's use goes far beyond its social aspect. What once was a tool for staying connected with friends and sharing information related to social events has now evolved into a much deeper information sharing platform. Its original use for social purposes is what caused it to become such a powerful tool for information sharing. Social sites have created a vast network of users, and each user has the ability to post original content or share discovered information from elsewhere on the internet. As more and more information is brought into the social media network, its usefulness as a resource increases exponentially.

The fact that everyone with an internet connection has access to this collection of information is the reason why it's so useful for disaster situations. The content is constantly changing and during a disaster information related to the event is shared often, driven by peoples' desire to be kept informed. The information shared can be done in real time providing up to date information from eyewitness with the ability for agencies to be present on social media, they are able to identify themselves as a trusted source for this information.

"Due to its recent emergence, social media has only had widespread use in disaster warning, response and recovery since 2010. It has played an important role during and after major disasters such as the 2010 Haiti earthquake (Yates and Paquette, 2011), 2011 Queensland floods in Australia (Bruns et. al., 2012), 2011 Christchurch earthquake in New Zealand (Bruns and Burgess, 2012), 2011 Japan earthquake and tsunami (Hjorth and Kim, 2011), 2012 Hurricane Sandy (Lotan, 2012) and Typhoon Haiyan that hit the Philippines in 2013."

For more information on social media and its history please refer to the Academy of ICT Essentials for Government Leaders Module 11 - Social Media for Development

Dynamic information on social media

The information on social media is constantly changing, usually fueled by mainstream events taking place whether they are political or entertainment related. When a disaster event is likely to occur, content on social media tends to shift towards information related to the event. The severity of the event is what determines how far of a reach and to what detail the information has.

Information related to weather events with little impacts tend to stay local, with residents of the affected areas and local news sharing information related to the event on social media. The information is first released by weather observation services and the message is then spread across social media by other users. These users become more informed and follow the up-to-date information related to the inclement weather as it approaches. Social media is useful during these localized situations, but the importance of users echoing information throughout social media is truly presented when new information becomes available that changes the severity of the situation.

When the situation worsens as a result of a flash flood or landslides social media gives users the ability to immediately share the critical information. And once the information is shared, it spreads at an

incredibly fast rate, often being echoed by international news agencies drawing attention from communities abroad.

The information spreads quickly because it taps into the social aspect of social media even though it isn't social information in the classic sense e.g. pictures of friends, food, entertainment etc. Despite this, still creates a sense of fulfillment or pleasure since the information shared is being interacted with. This is because the sensation of creating/finding information and sharing it with others, and knowing the information shared is gaining in popularity, returns in gratification for the user. It is the same pleasure sensors activated with "reward" processing, and similar feelings include those associated with money, good food, sex and gains in reputation.¹⁰ In this sense, users of social media continue to use the platform for social aspects, but are doing so in a positive way by sharing crucial information and directing attention to important events.

In high profile disasters, such as volcano eruptions or major earthquakes, information is shared beyond those that are potentially affected by the hazard. The benefit of this is that the event gains international attention and the affected population are more likely to receive monetary aid for their losses. Even though these types of events don't stay popular on social media for long, the attention is enough to make an impact on an international audience and warrant their sympathy, attention, as well as generate a desire to help.

Users from outside the affected area find information on social media especially interesting because local users from impacted areas can often supply unique eyewitness accounts. These photos and videos, as amateur as they often are, still give a better understanding of the situation. Geotagging can also be used to identify exactly where a photo is being taken by social media users which helps to categorize information on social media. In a more professional sense, geotagging can be used to map passable roads, damaged buildings and other logistical needs following a disaster with the help of satellite technology. When data like this is collected in a mass scale, it can help provide crucial information and help guide those responding to a natural disaster.

Material such as photos, videos and geotagging data can give local authorities a better understanding of damage at the ground level, especially when photos depict damage at a specific location. Better yet, is that social media allows these authorities to talk back to the user and ensure that their message was received and is being acted upon. This two way communication is unique to social media and can be extremely beneficial in disaster events.

The two-way communication of social media

This two-way communication gives the user at the ground level the ability to talk to authorities in real-time and vice-versa and it has incredible potential during a disaster event. As a hazardous event is approaching authorities can broadcast messages via social media asking for specific information, such as if it's raining in a certain area. Social media can also be used to further the reach of evacuation broadcasts and call if people need assistance.

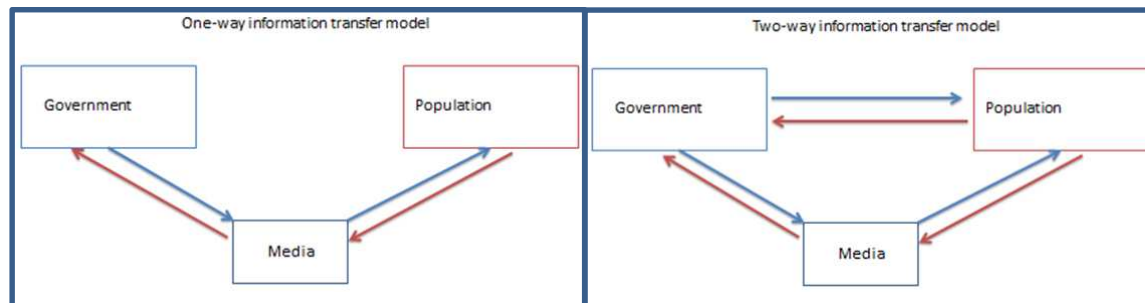
¹⁰ <http://www.medicalnewstoday.com/articles/265509.php>

Figure 1 shows how internet and social media have changed the flow of information. Traditionally, information was generated from the government and would be disseminated to the public. Only during public speeches or other related events did the government directly communicate with the public, and even then the media was present to amplify and disseminate the message to a wider audience. The public were merely receivers of this information.

Today, the internet gives the public the ability to disseminate information to a wider, potentially global, audience. Information disseminated by the public can be picked up and utilized by the media and the government to provide them with useful information in real-time. Similarly, the media can amplify a message generated by the public, such as a call for help, or a message sent out by the government.

This is useful in disaster risk management by creating a web of information gatherers throughout a country that can report on disaster events, and this information can be used by the media, government and national disaster management organizations to provide support.

Figure 1: A comparison of one-way and two-way information flow



Social media can be used for people to request assistance if they're in need. This has happened on several occasions when people are stranded due to flooding. They can post their exact location and rescuers can talk back ensuring that someone is on the way. This can create a more accurate rescue system since relief efforts can be directed to specific targets.

Disaster events cause an increased need for communication and it's not only organizations talking to the public. Communication is continuing between public entities and the Social aspects of social media are still present. Users often use social media to post updates to let their friends and loved ones know they are ok. This public to public communication also helps to resonate information from trusted sources because people are motivated to keep their dear ones informed.

Social media as a mouthpiece for the government

Social media is a key way that government bodies and other organizations can broadcast their own information within a country. And their information is more likely to be shared because these institutions are seen as trusted sources. Users, being familiar with the organization, will be more likely to share the information to others because they recognize where it comes from. It's important for organizations to have a plan for social media so when a disaster event occurs they have the capacity to

deal with the information flow/requests and provide accurate information in a timely and professional fashion.

Other users are more than willing to assist in social media efforts by amplifying their messages across social networks. After the Nepal earthquake, a popular Twitter account with 7.4 million followers associated with breaking news tagged the National Emergency Center of Nepal's Twitter account giving the most up-to-date information of the death toll caused by the Earthquake on April 25 and people from around the world voiced their concern. It's interesting to note that these updates were ongoing, since the 5,057 people reported killed eventually grew to over 9,000.

Figure 2: How traditional media can spread disaster related information through social media



As a trusted source, governments and other organizations can pronounce their authority on social networks and dispel rumors. Even though misinformation is present on social media they are quickly snuffed out. And this is done primarily either by eyewitnesses who know the information to be untrue,

¹¹ <https://twitter.com/breakingnews/status/593034452273594369>

or professionals pronouncing that the information is inaccurate. The information is then labeled as untrue and spread throughout the network affectively ending the rumor.

The dynamic information flow and the different uses of social media is what make its use crucial during a disaster. One of its only setbacks, the fact that not everyone is connected to the internet or on a social media network, is changing. More and more people are connecting to the internet and the use of social media is growing, particularly in Asia. Social media is a key information and its many uses can be utilized to lessen the effects of disaster situations.

The use of social media by authority figures is another reason to push for internet access in rural areas. This access can promote connectivity and safety throughout an entire country. These systems can then be utilized to disseminate early warning when a disaster event is likely to affect a particular area. Already initiatives are taking place to make this happen in rural areas.

It's important to note that traditional media still needs to be focused on as a complimentary medium to social media. Despite the growth of social media, traditional media such as television, radio and newspaper can still be even more useful in reaching rural communities compared to social media.

[Insert Google's Project Loon case study]

The positives and negatives of social media

Positives

- Real time sharing capability
- Massive information network
 - The information network created by millions of users sharing content opens up a range of benefits to increase awareness, promote calls to action, collect data and much more.
- The ability to participate in two-way communication

Negatives

Limited reach/users

- Not everyone is connected to social media. This means that social media cannot be relied on as a tool that reaches every member of the community. It should be used as a compliment to traditional media.
 - Solution: Working towards infrastructure that provides internet to rural areas. Inexpensive mobile devices are also an option.

False information and rumor spreading

- Whether intentional or unintentional the ability to share information quickly and easily opens up the potential for the spread of misinformation.

- Solution: An educated user base that understands the problems false information can cause.

Information overload

- During a disaster event related information spikes which can make it hard for people to distinguish information among the “noise.”
 - Solution: Use of hashtags to categorize content appropriately

Dissemination of outdated information

- It’s been found that calls for help via social media have continued to be spread through social media even after the people have been rescued.¹²
 - Solution: An educated user base that understands that calls for help should be researched before being shared again. Possibility for an in-program technology that provides this.

Reliance on electricity

- Social media can only be used in areas that have lost powers via mobile devices, which normally only have a 12 hour battery life if fully charged.
 - Preparedness measures for blackouts and the directions of what to do if one should occur.

¹² Alice Lipowicz, Social media: A mixed blessing for disaster response, September 16, 2011. Retrieved from: <https://fcw.com/articles/2011/09/16/social-media-for-disasters-has-good-and-bad-aspects-crs-report-says.aspx>

Types of Social Media and their application to DRM

There are a number of different types of social media platform but the most useful for application to DRM include social networking, microblogging, media sharing and mapping.¹³ Each is used differently and provides varying ways information is shared.

Table 1: Types of social media in disaster risk management

Type of Social Media	Definition	Application to DRM	Link to site
Social Networking	Social network sites are web-based services that allow individuals to create a public profile, create a list of users with whom to share connections, and view and cross the connections within the system.	Organizations or government offices can also create profiles which can be used as a mouthpiece to share important information related to DRM.	https://www.facebook.com/UNISDR/ https://www.facebook.com/RedCrossRedCrescent https://www.facebook.com/NDMA.in/ (National Disaster Management organization India)
Microblogging	Services that focus on short updates that are pushed out to anyone subscribed to receive the updates. The most popular is Twitter.	Institutions can create profiles which can be used to broadcast short messages related to DRM.	www.twitter.com
Media Sharing	Services that allow the user to upload and share various media such as pictures and video. Most services have additional social features such as profiles, commenting, etc. The most popular are YouTube and Flickr.	These sites can be used to post practical information related to disasters. Such as photos of damage or videos of the events of best practice techniques e.g. what to during an earthquake.	www.flickr.com www.youtube.com
Mapping	Social maps are mapping tools that users can update depending on the current situation in the area.	Can be used in disaster mitigation activities to identify hazard zones. It can also be used in disaster response activities e.g. people marking where they need assistance.	http://agos.rappler.com/

¹³ Ivy Wigmore, "Definition Social Media," May 2015. Retrieved from <http://whatis.techtarget.com/definition/social-media>

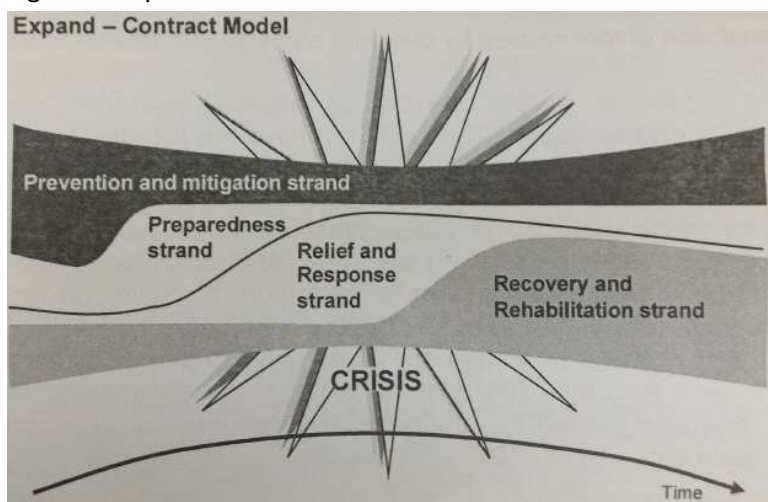
Keep in mind that, while these are the four listed different types of social media, there can be overlap among the various services. For instance, Facebook has microblogging features with their “status update” where users can post their mood or opinion on a specific topic. Also, Flickr and YouTube have comment systems similar to that of blogs.¹⁴

For more information on the different forms of social media please refer to the Academy of ICT Essentials for Government Leaders Module 11 - Social Media for Development

Chapter 2: The four phases of Disaster Risk Management and their use in social media

Disaster risk management can be thought of as having four phases: mitigation, preparation, response and relief. Traditionally, these concepts were seen as acting independently and would occur depending on when a disaster event strikes. Today, the different phases can occur at the same time. The primary focus of the efforts just tends to change.

Figure 3: Expand – Contract Model



In Figure 3 the cycles are represented as strands that continue side-by-side, expanding or contracting on demand depending on the situation. After a disaster the Relief and Response strand may grow bigger, but other strands are still present and ongoing, just not as prominent at the time.

These phases can be used as a guide to help direct social media efforts. The table below defines each of the four phases with examples and gives the type of information that can be distributed on social media related to it.

¹⁴ Tim Grahl. “The 6 Types of Social Media” August 2015. Retrieved from <http://timgrahl.com/the-6-types-of-social-media/>

Prevention and mitigation phase

Table 2: Social media use in the prevention and mitigation phase

Phase	Definition	Examples of efforts in the phase	Related information that can be found on social media
Mitigation	The lessening or limitation of the adverse impacts of a disaster.	Making investments to lessen the impacts of natural disasters. Examples: Red River Floodway Earthquake resilient buildings	Examples of best practices can be shared via social media. Governments updating citizens on the current status of projects meant to lessen the effects of natural hazards.

The adverse impacts of hazards often cannot be prevented fully, but their scale or severity can be substantially lessened by various strategies and actions. Mitigation measures encompass engineering techniques and hazard-resistant construction as well as improved environmental policies and public awareness.

“One of the best known examples of investment in disaster mitigation is the Red River Floodway. The building of the Floodway was a joint provincial/federal undertaking to protect the City of Winnipeg and reduce the impact of flooding in the Red River Basin. It cost \$60 million to build in the 1960s. Since then, the floodway has been used over 20 times. Its use during the 1997 Red River Flood alone saved an estimated \$6 billion. The Floodway was expanded in 2006 as a joint provincial/federal initiative.¹⁵”

Encouraging people to engage in disaster risk mitigation activities is one of the most challenging messages to spread among communities. The reason for this is that the disaster risk is not immediately present so people do not have direct motivation to begin taking action. The messages need to be clear, concise and easy to engage with.

Social media can be used to share good practices in disaster mitigation and ask people what questions they may have regarding disasters. Asking questions to the community is important because it helps engage the public and can target specific needs.

During this phase the population rarely uses social media as a tool to talk to the government, because a disaster is not imminent. It's important for the person responsible for posting on social media to develop questions that elicits a response. While this is not always required it helps the agency's reputation on social media by showing that they're willing to hear from the public and are using the platform to receive information, not only sending it.

¹⁵ <http://www.publicsafety.gc.ca/cnt/mrgnc-mngmnt/dsstr-prvntn-mtgtn/bt-dsstr-mtgtn-eng.aspx>

Social media can also be used to inform the population of ongoing disaster mitigation projects. This can help boost public awareness that the government is taking active steps towards improving their safety against natural disasters.

The below Twitter posts shared in the local language by BNPB (Indonesian National Board for Disaster Management (Indonesian: Badan Nasional Penanggulangan Bencana) official Twitter account the mountains' activity is becoming more severe. The board rose its status to caution (level 2 of 4: status, normal, caution, alert, and watch out), and BNPB coordinated this message with the three affected districts' disaster management agencies. Five days later, it raised the mountain activity status to Alert level.¹⁶



¹⁶ Sofiarti Dyah Anggunia and Larastri Kumaralalita, How Indonesians Use ICT And Social Media for Disaster Management, 13 March 2014. Retrieved from: <http://emergencyjournalism.net/how-indonesians-use-ict-and-social-media-for-disaster-management/>

Preparedness phase

Table 3: Social media use in the preparedness phases

Phase	Definition	Examples of efforts in the phase	Related information that can be found on social media
Preparedness	The knowledge and capacities developed by governments, professional response and recovery organizations, communities and individuals to effectively anticipate, respond to, and recover from, the impacts of likely, imminent or current hazard events or conditions.	Information on likely disasters can be spread throughout the community and how to best prepare for them. This can include what to do if an earthquake strikes or how to respond to an evacuation siren.	Good practices and other forms of practical information can be shared via social networking sites and microblogging sites. While these posts can be general most of the time, when a disaster is imminent or ongoing, content can be related to information specific to that disaster.

Social media can play a unique role in the time leading up to a potentially hazardous event. Even though preparedness measures can take place during all phases of Disaster Risk Management, social media messages broadcasting preparedness measures for a specific event can gain more popularity. This is because the content is relevant and is complimenting traditional media channels.

During the time leading up to potentially hazardous events, when many people are on heightened alert and event-related information is quickly being produced and circulated, it's an opportunity to spread preparedness related information. It's during this stage that people look for reliable sources of information, and besides the local and national weather services, the government has a responsibility to provide this information, and one of the best channels for them to do this is through social media.

There is a clear role that the government can play in information distribution such as identifying hazard zones, evacuation routes, shelters, best practices etc. Consequently, social media provides the perfect outlet to spread this type of information in real time which will also compliment the information being disseminated on traditional media.

The information distributed by the government via social media can be used to give public, national disaster management organizations and response personnel the necessary information to reduce the impacts of an oncoming disaster risk event.

Similarly, social media provides government with a listening mechanism to understand events that are happening on the ground. By making use of the information collected from eyewitnesses the government can make key decisions and issue warnings to specific groups of people. These warnings can work with traditional media to make sure people get all the information they need to make critical

decisions when a disaster risk is upon them. An example of this was during Hurricane Sandy in the United States when the New York Office of Emergency Management provided hourly updates and evacuation orders via Twitter, and New Jersey Gov. Chris Christie relayed updates about the storm, aid and evacuation orders via his personal Twitter account.¹⁷

Below is a post by the National Institute of Disaster Management Pakistan informing their social media followers good practices of an earthquake situation.



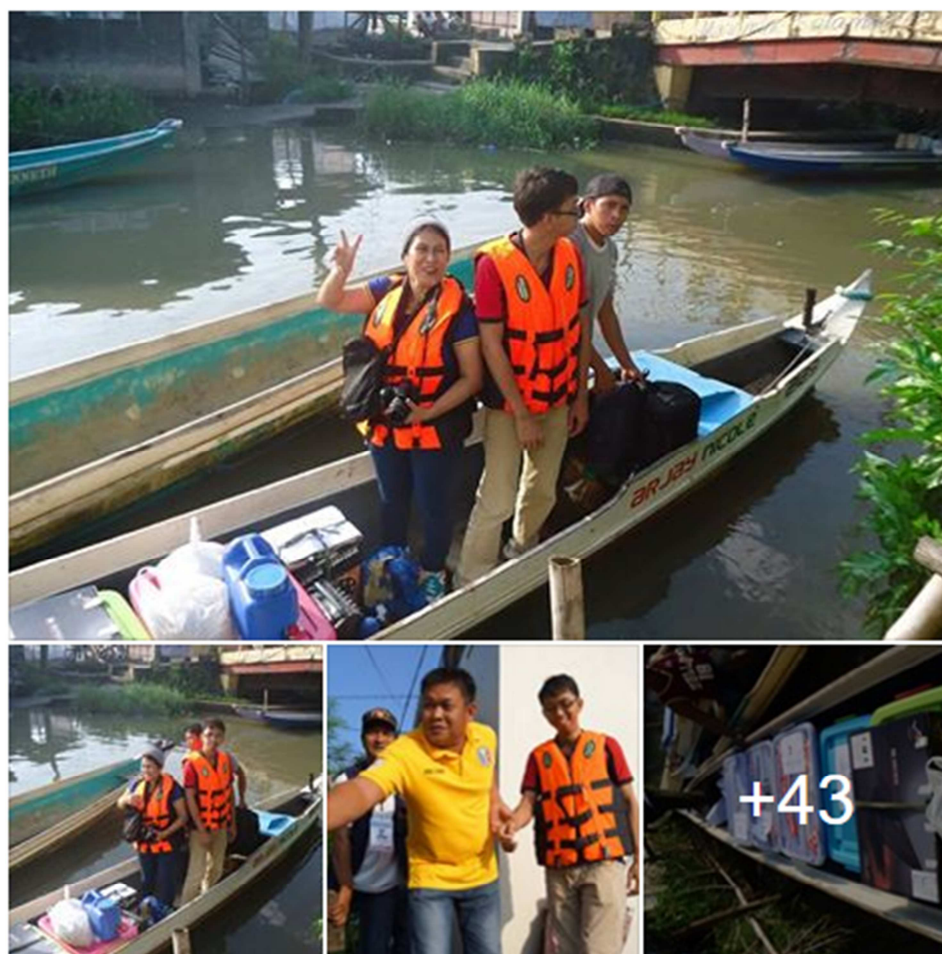
¹⁷ Sara Estes Cohen. "Sandy Marked a Shift for Social Media Use in Disasters. March 7, 2013. Retrieved from: <http://www.emergencymgmt.com/disaster/Sandy-Social-Media-Use-in-Disasters.html>



Dost_pagasa added 46 new photos to the album:
Information Education and Communication (IEC)
Campaign.

November 5 at 5:15pm · 🌐

Community-based Early Warning System (CBEWS) on Storm Surge
Component GMMA READY Project for the Provinces of Cavite, Bulacan
and the City of Manila



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297 people like this.

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Write a comment...



World Meteorological Organization Congratulations

Like · Reply · 👍 1 · November 5 at 5:38pm



Dost_pagasa thank you very much for your appreciation. we will continue to do this kind of endeavor as part of our commitment 😊

Relief and Response phase

Table 4: Social media use in the relief and response phase

Phase	Definition	Examples of efforts in the phase	Related information that can be found on social media
Relief/Response	The provisions of emergency services and public assistance during or immediately after a disaster in order to save lives, reduce health impacts, ensure public safety and meet the basic subsistence needs of the people affected.	Disaster response is predominantly focused on the immediate and short-term needs and is sometimes called <i>disaster relief</i> .	<p>Social networking, microblogging, and media sharing sites can be used to document some of the storm events.</p> <p>Mapping/Geotagging sites can be used to mark the location of damage structures and where people need help.</p> <p>One tool is Rappler's Project Agos, a mapping tool that lets users report damage and where people need assistance.</p>

Social media's role during the relief and response phase is growing with the public having the ability to provide information to government and first responders via social media. The affected and surrounding civilization is now seen as a crucial source of information during a disaster, which governments can tap into to see the situation on the ground. By promoting the use of social media to a population, citizens become information resources that can work with the government to conduct relief efforts, rather than simply being a victim in need of assistance.

The government's role is to establish pre-determined means of using social media to monitor and listen to the situation that is unfolding. This includes the creation and following of key hashtags people can use to report on the event.

Similar to the preparedness phase both the community and the media are following the event very closely. People are looking for updates on the events' impacts and turning to communication outlets to inform them. While traditional media plays a large role in this, social media can provide quick information that traditional media is unable to provide.

Social media can give constant updates on the situation which can help relieve the stress of those on the outside looking for updates and traditional media will echo this information increasing its reach.

Geotagging can be used to provide visual of affected areas that can be used both by the public to gain a better understanding of the damages in an area, and by relief efforts to manage logistics in the affected area.

After the Nepal earthquake, a network of global volunteers contributed in assessing damage and provided response workers with the necessary information to coordinate activities on the ground. The “digital humanitarians” staffing the effort were scattered across the world working with high-resolution satellite imagery. They quickly located 13,199 miles of roads and 110,681 buildings and added them to OpenStreetMap, an online, open global mapping platform that the United Nations, the Nepal Army and the Red Cross are using to pinpoint navigable routes into villages in the quake’s epicenter.¹⁸

Figure 4 below shows a tweet by the Federal Emergency Management Agency directing people towards trusted resources to monitor a major fire in California. Notice how they tagged the names of the fire using a hashtag further promoting the use of the hashtag among the population on social media.

Figure 4: Government (FEMA) Twitter account sharing trusted resources



Figure 4 shows the Federal Emergency Management Agency shares where users can find trusted sources to access information on the Valley Fire and Butte Fire that occurred in October 2015.

¹⁸ Laura Parker, “How 'Crisis Mapping' Is Shaping Disaster Relief in Nepal,” August 20, 2015. National Geographic. Retrieved from: <http://news.nationalgeographic.com/2015/05/150501-nepal-crisis-mapping-disaster-relief-earthquake/>

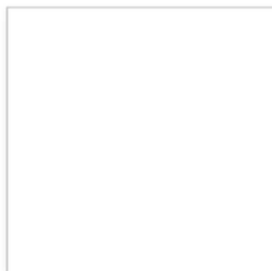


National Disaster Management Centre - Maldives

October 31, 2012 · 🌐

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https://twitter.com/NDMC_Official



NDMC (NDMC_Official) on Twitter

Instantly connect to what's most important to you.
Follow your friends, experts, favorite celebrities, and
breaking news.

TWITTER.COM

👍 Like

💬 Comment

➦ Share

📶 Buffer

2 people like this.

1 share

The national Disaster Management Centre in the Maldives uses Facebook to promote their Twitter page.

Recovery phase

Table 5: Social media use in the recovery phase

Phase	Definition	Examples of efforts in the phase	Related information that can be found on social media
Recovery	The restoration, and improvement where appropriate, of facilities, livelihoods and living conditions of disaster affected communities, including efforts to reduce disaster risk factors.	Damaged facilities are rebuilt and people are beginning to return home if they had evacuated.	Social networking, microblogging, and media sharing sites can be used to document some of aftermath and rebuilding process. Social media use during this phase can also be used to reflect on the event and share best practices for future use.

Social media can be used during the recovery phase to share information on how the recovery process is unfolding. This can help dispel rumors and keep the public informed on the status of recovery processes and keep them informed on key information.

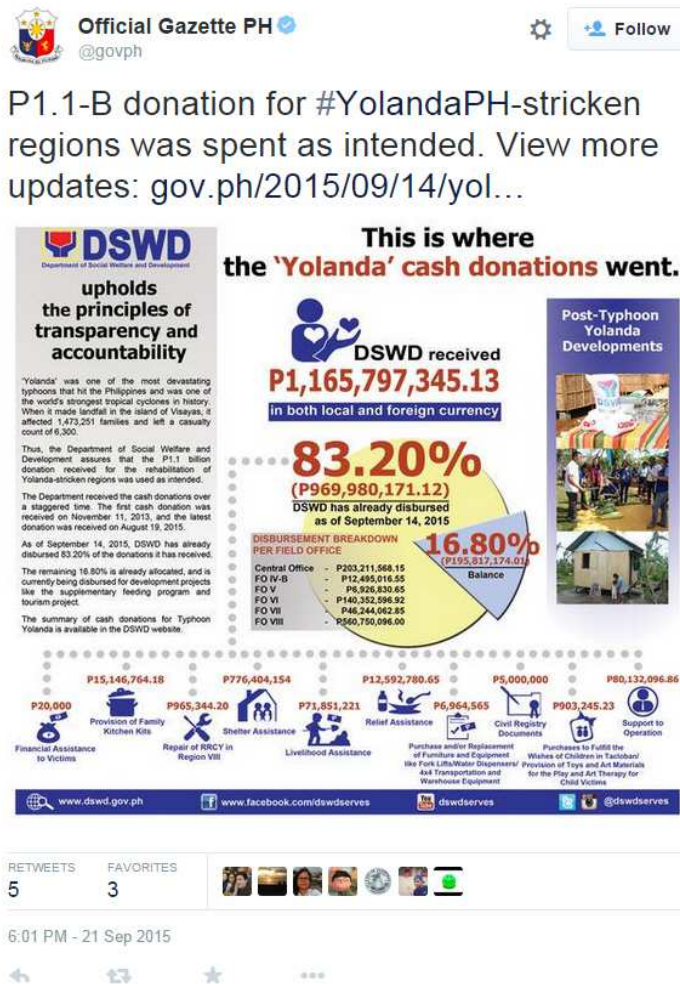
Since the government is a trusted source of information, social media content can include such crucial information as where evacuation centers are housing people, where supplies are distributed, and where hospitals are located.

The recovery phase is also a time to reflect on the personal stories of people who were affected by the event. This can both boost the morale of local populations and can give the international community a snapshot of the disasters affects. This relationship built through social media between the international and local community can help draw financial support to support those affected.

An additional benefit of sharing updates on the recovery process is that it keeps the disaster event relevant long after traditional media coverage has stopped. While affected communities will be following recovery efforts, the international community often stops getting updates from traditional media sources after the initial impact. Social media is a good way to keep focus on a disaster event long after traditional news sources have stopped their coverage.

Figure 5 is an example from the official Twitter account of the Official Gazette of the Philippines updating citizens on how donations were used for Yolanda recovery efforts. Notice that an official hashtag was also used to categorize the information within the social media realm.

Figure 5: Social media used to share relief budget allocation



The Official Gazette of the Philippines uses their Twitter account to deliver information on the recovery from damages caused by Typhoon Yolanda.



FEMA Federal Emergency Management Agency

August 29 · 🌐

It's been ten years since Hurricane Katrina struck the Gulf Coast. This week we're looking back at the hard work that the people of Louisiana and Mississippi have done to bring their neighborhoods, culture, and livelihoods back after the storm. We're featuring these stories at beta.fema.gov/katrina10, along with photos, videos, and facts highlighting the recovery.



👍 Like 💬 Comment ➦ Share 📶 Buffer

57 people like this.

Top Comments ▾

28 shares

The Federal Emergency Management Agency uses their Facebook to promote a video that shows how the affected areas have recovered since Hurricane Katrina. The posting is timely given that it was the 10 year anniversary of the hurricane.

Social media uses in disasters

The following can be used as a resource to see examples of how social media can be used surrounding a disaster event.

Figure 6: Social media use in disasters

Disaster social media use	Disaster phase
Provide and receive disaster preparedness information	Pre-event
Provide and receive disaster warnings	Pre-event
Signal and detect disasters	Pre-event → Event
Send and receive requests for help or assistance	Event
Inform others about one's own condition and location and learn about a disaster-affected individual's condition and location	Event
Document and learn what is happening in the disaster	Event → Post-event
Deliver and consume news coverage of the disaster	Event → Post-event
Provide and receive disaster response information; identify and list ways to assist in the disaster response	Event → Post-event
Raise and develop awareness of an event; donate and receive donations; identify and list ways to help or volunteer	Event → Post-event
Provide and receive disaster mental/behavioural health support	Event → Post-event
Express emotions, concerns, well-wishes; memorialise victims	Event → Post-event
Provide and receive information about (and discuss) disaster response, recovery, and rebuilding; tell and hear stories about the disaster	Event → Post-event
Discuss socio-political and scientific causes and implications of and responsibility for events	Post-event
(Re)connect community members	Post-event
Implement traditional crisis communication activities	Pre-event → Post-event

Source: J. Brian Houston, University of Missouri. Social media and disasters: A functional framework for social media use in disaster planning, response, and research. 26 July 2015

Chapter 3: Elements of a social media strategy

In order to better understand the social media strategy and its elements an outline is provided below. Each element will be broken down throughout the chapter to generate a greater understanding of the overall strategy. This strategy outline is meant for those starting a social media account or wishing to add direction to an existing account. Social media veterans may have strategies that are more complex.

While the strategy is crucial, the goal the strategy is meant to accomplish is just as important. What is the purpose of the strategy and what reaction or information is needed from the organizations social media followers? This goal can be as simple as starting to use social media consistently, or increasing the amount of visitors to a website. In either case, keep in mind that building a social media presence takes time and effort. The social media accounts reputation will grow over time and the goal can be adjusted accordingly. As that channel begins to gain popularity more opportunities will become available for interacting with followers and new objectives can reflect the institutions communications goals.

These goals should be aligned with the institutions overall focus. If there is a focus on preparedness the social media goal and strategy should reflect this. If the focus is on disaster risk management in a broader sense then the shared information can be more varied. It should be noted that using social media for recovery and response activities should not include rescue and evacuation coordination unless there is full dedication by those moderating the page and existing coordination mechanisms to make such extractions possible.

Figure 7: Social Media Strategy Template

Social Media Strategy Outline
Channel: (Which form of social media will be used)
Target audience: (Who the information is meant for)
Objectives: (The desired effect of the message conveyed to the target audience)
Administration: (Who will run it/where content will come from)
Posting frequency: (How many times you will post material)

Identifying a target audience is the first step to developing a social media strategy. A specific target audience is the first element when developing a social media strategy. For many governments their primary target audience is their population. This group represents voters and those that are on the receiving end of government action. Social media can be used to engage with the public and inform them on information related to disaster risk management.

While the public can be the main focus of the strategy members of national disaster management organizations and other key groups can be the secondary target audience of social media and a plan should be made to engage with these groups. The reason for the strategy to be broken down by target audience is because the information distributed to each group varies based on the target audience.

When the target audience is selected research needs to be done to discover where these users are on social media. This information is easy to find since marketers around the world have already collected the data. This information will vary by country, but in most locations Facebook is the social media platform with the most users and is a good place to begin. The platform makes it possible for a “page” to be created which can represent a government or organization. Facebook’s far reach and its ability to share a large amount of text accompanied by photos and videos makes it a dynamic platform which allows for a wide variety of content sharing.

Information Dissemination via Social Media

After a target audience is chosen it must be decided what kind information will be disseminated. What information is important for the target audience? This depends on which government branch is administrating the social media site, but in most disaster risk management related cases its giving the user the ability to know where to go for disaster related information. The content should represent the social media page as being a useful resource. The content should be easy to understand and easily applicable to real life situations. Posts can be about specific hazard zones to inform people of the risks in their own areas and those of loved ones. This type of information can be especially useful and effective when a threat is imminent.

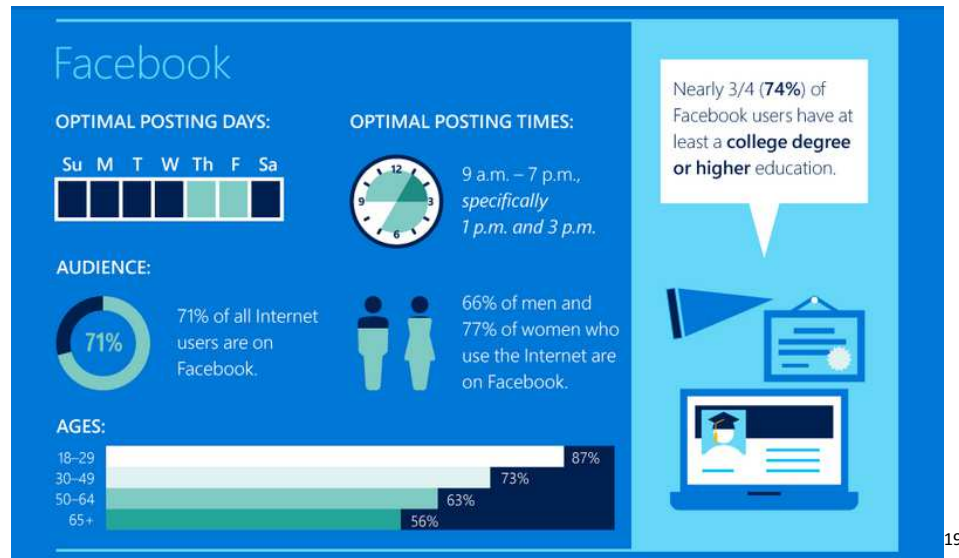
The Natural Disaster Mitigation Agency, commonly known as BPBD, updates its Twitter page sometimes as frequently as every minute to inform people in Jakarta on rising river levels. They also retweet useful weather related information people tweet to them from different neighborhoods.

Content creation can be guided by following the four phases of disaster risk management. Each phase represents different types of information and how the audience should react to the information.

Information related to the four phases can be sent out via social media at any time, but different phases will be prioritized based on the situation. Messages with content related to mitigation can be sent out at any time and can include information such as affordable ways to fortify a home against disaster impacts. Preparedness reminders can also be broadcast such as reminders to keep canned food and batteries or disaster related information such as what numbers to call in case of emergency.

Thinking deeper about content creation and posting, further information can be researched to discover the best time to post information to boost mitigation measures and preparedness. These times do not always need to be followed, but it’s a good reference when external sources, such as an incoming storm, are driving posting times.

Figure 8: Smart posting



Content related to the preparedness and response phase is much more specific compared to the mitigation phase. This is because, by definition, these phases deal with a specific disaster that is either imminent, ongoing, or recently ended. Content can be tailored to address the event and deliver information that addresses specific needs for the user. This can include preparedness techniques, such as storing food in high places in case of flooding, and the most up-to-date weather information.

Posting/listening responsibility

It's important to note within a social media strategy the person responsible for monitoring social media channels due to its usefulness as a listening mechanism, which is crucial during the response and recovery stage. During this time more information will be coming from the public and someone needs to be available to monitor social networks.

Social media has become a common tool for people to request assistance and therefore should be monitored with greater intensity during times of disasters. During or following a disaster both the public and aid personnel can use social media to request assistance and as a useful tool for information that can be updated in real time.

While the ability to post in real time is useful, it should be noted that even though social media has the ability to post a very large amount of content, the amount should be restricted to "need to know" information, or crucial information, especially when creating content with the response and relief stages in mind. Because there will be an increased amount of information circulated during a disaster event, only the most useful information should be shared. This will cut back on the amount of "noise" or useless information being circulated on social media. Content from government websites should only be

¹⁹ <http://www.businessinsider.com/best-times-to-post-on-facebook-instagram-twitter-2015-7>

the most important information. A general update per hour, combined with important information as it arises is sufficient. This will cut down on noise and give the person monitoring social media a better chance to pick up on useful information such as photos of damages or more importantly calls for assistance.

The recovery phase includes information that updates the population on the impacts of the disaster and best practices that proved affective. Rumors often spread during this time and social media is a communication channel that can consistently provide accurate information. During this time the information posted on social media does not have to be strictly for the recovery phase, content can reflect on mitigation efforts as well. This is especially useful when an investment was made into mitigation, such as a new flood canal, that yielded positive results after a disaster event.

Figure 9 gives general examples of what to post and what not to post. The general rule is that if the content would cause issues in traditional media, it will do the same on social media.

Figure 9: Basic guidelines on what to post and what not to post

What to post	What not to post
Best practices related to specific disasters	Politically sensitive information
Status updates on disaster events	Anything that blames another entity for a problem
Areas that are the most at risk	Hate speech towards a target community or group
Useful situations such as evacuation shelters	Information that can be misinterpreted
Where to go for more information (useful links)	Guarantees that are hard to follow through with
Emergency contact information – Even phone numbers if given the right to share online.	

Figure 9 shows an example of a completed social media strategy. The objectives of the strategy should be thoroughly brainstormed and should be shared with people who may also have responsibility in the matter. For example, if the user wants to create a Facebook page that can be used by the public to ask for assistance, an agreement needs to be made beforehand with search and rescue teams guaranteeing that the organization can hold up the promise of providing assistance. People will lose trust very quickly if they request aid and do not receive it, and it will look like the page's administrator is making false promises. It's also important to note that upon requesting assistance, people expect some type of aid within three hours²⁰. For this reason, extensive strategizing must take place with those responsible for rescuing before a user can make such promises on social media.

Implementing the social media strategy into an existing communication plan

The social media strategy being created should complement the goals and efforts of apre-existing communication plan. This will aid the implementation effort because it follows the pre-established goals

²⁰ OCHA Policy and studies series Humanitarianism in the Network Age Including World Humanitarian data and trends.

of the organization. It will also make content creation for social media easier, since the content is being created for other channels e.g. the news section of a government website.

Similar to the way social media should be used to compliment traditional media, not replace it, there should be emphasis that social media is another tool to help drive communication. It operates the same way as a government or organization website is updated. Important news, warnings, event updates and other information related to the organization can be published on social media.

To implement a social media into a government body or organization first propose the idea to the appropriate person of authority suggesting ideas for a social media strategy and its overall objective. If accepted, draft a strategy with those responsible for communication and determine who will run the social media channel(s). This person should be able to delegate at least one to two hours per day for social media. Finally, begin posting and tracking social media activities and respond appropriately to how users engage with the posted content.

Please refer to the box that states some general examples of what to post and what not to post to avoid any potentially offensive material on social media.

Figure 10: Completed Social Media Strategy

Social Media Strategy Completed Outline

Channel: Facebook

Target audience:

- Primary: General public.
- Secondary: Key decision makers and members of national disaster management organizations.

Objectives:

- Create a trusted resource that the public can use to gain information on disaster management
- To build comprehension of best practices for all phases of disaster risk management by posting practical and engaging content
- Establish the Facebook page as a tool the public can use to request assistance

Administration: Individual in charge of external communication for the government body.

Contingency planning in case of a power out

During severe weather conditions there is potential for power outages that can be detrimental to communication if not planned for appropriately. Early warning systems provide advanced warning of severe weather and the time before the event is crucial to inform communities.

Social media can be used to inform users of areas likely to be affected prior to an event. Posts should include how to prepare and what to do if a power outage occurs. This includes keeping a flash light with extra batteries readily available, and charging cell phones using a surge protector so they can remain in contact with others if the power fails.

People who are responsible for updating trusted organizations/agencies social media channels during a crisis should make sure to have a generator or charged cell phones on hand. This can ensure that they can continue to post and let followers know there has been a power failure. Initial posts can update followers that posts will be coming less frequently in order to conserve energy.

Communities should be encouraged to share their neighborhoods location if they should lose power. This can help authorities pinpoint where power is lost and take the necessary efforts to repair the problem.

It's also encouraged to have a contact person outside the community that an individual can contact in case of a power out. This person can help notify authorities and repair the problem.

Chapter 4: Advantages/Disadvantages of the different types of Social Media

Throughout this chapter the advantages and disadvantages of each of the different forms of social media are explored. The types of social media discussed are the ones that apply specifically to disaster risk management. For additional information on the many different types of social media and the advantages and disadvantages of each please refer to *Academy of ICT Essentials for Government Leaders Module 11 Social Media for Development*.

Table 6: Advantages and disadvantages of the types of social media used for disaster risk management

Type of Social Media	Advantage	Disadvantage
Social Networking	<p>The most used social media platform with over a billion users.</p> <p>Ability to create organization pages which can become a trusted source of information and a place people go to when they're in need of information</p> <p>The ability to post long text messages with the ability to add videos, photos text files. (Even though shorter posts are generally preferred.)</p>	<p>The most social of the social media platforms. People build a network of friends, colleagues and acquaintances. Because of this, the platform is used primarily for social purposes and most of the information is either personal, or "ranting" about certain important topics such as news events. This heavy emphasis on social activities makes it hard to generate any type of useful discussion with users outside of the organization/government page.</p> <p>Fake profiles are often used for advertisement purposes.</p>
Microblogging	<p>Constant flow of information that is customizable based on who the user feels is important. This makes it good to send out key information while only receiving specific information back.</p> <p>Good for quick and constant updating.</p>	<p>Niche user population that is more popular with companies, organizations and media. This can make it hard to target local populations.</p> <p>Character limit.</p>
Media Sharing	<p>Make it possible to easily post and share a large amount of photos and videos, which users find more engaging.</p>	<p>Photos and videos should be high quality which takes a large amount of internal capacity. The frequency of this material must also be very high to create a following within the channel. Most governments cannot afford to make videos constantly. These sites are best promoted further through YouTube and Facebook.</p>
Mapping	<p>Shows real information on the ground.</p>	<p>Needs to be popular enough for people to</p>

		contribute information.
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ANNEX 1: Practical social media examples and uses

The following annex gives practical advice to help in the creation and management of social media content. It answers some common questions and shows examples of different types of social media posts. It discusses the built in analytics provided by Facebook and Twitter and tools available to help manage different social media accounts.

The hash tag (#)

Used on Facebook, Twitter, Google+ and Instagram to create a searchable topic.

By adding a hashtag in front of a word or group of words (e.g. #DRR, #NepalQuake) the item becomes a categorized topic. This is useful in social media because it adds a classifier to posts that when clicked on brings the user to posts with the same hashtag. This allows the user to easily find information related to the topic or create a keyword that can be used to identify posts related to a specific event or concept. In disaster risk management, this is useful because it allows users to create a hashtag around a disaster event or theme.

To get the most out of a hashtag it's best to use them only when trying to create a searchable term or link it to an existing one. Adding a #hashtag to a post #periodically as in this #example does not add anything of value. Posts that include more than two hashtags on Twitter actually face 17% less engagement.²¹ One or two hashtags are acceptable per post, but Instagram usually include more between five and ten being a recommended number.²²

Hashtags can be used on Facebook, Twitter and Instagram.

To create a hashtag add a hashtag before a word and begin to promote the hashtag. Post items that explain that what has been created is the official hashtag of the event. Others are usually quick to adopt the use of the hashtag because they know that the information they share will be categorized appropriately. This will ensure more people see their message and ultimately gain it more popularity.

A few examples of hashtags used for disaster risk management related purposes include #DRR, #prepare, #respond, #floodaware, #naturaldisaster and #EmergencyTip. Some hashtags are not disaster risk management exclusive, and it's common that general hashtags may be used for other purposes. The best way to ensure a following around a specific hashtag is to create a unique one. To make sure the hashtag is unique, search for it beforehand on a social media site to see if it's in use.

²¹ Kevan Lee. "A Scientific Guide to hashtags: How Many, Which Ones, and Where to Use Them," buffersocial. July 7, 2015. Retrieved from: <https://blog.bufferapp.com/a-scientific-guide-to-hashtags-which-ones-work-when-and-how-many>

²² Mojca, "Hashtags on Instagram: How many should you use?" Super Spicy Social Media. September 9, 2014. Retrieved from: <http://superspicymedia.com/blog/hashtags-on-instagram-how-many-should-you-use/>

The use of the “@” sign on Twitter

On Twitter every users handle begins with an “@” symbol. If the user adds the person’s handle, such as @ADPCnet, to the beginning of a post, the tweet will only be seen by that person and the person’s followers that follow both the users account and @ADPCnet.

For example:

“@ADPCnet great conference last week, it was very informative.”

If the user adds the username to anywhere else in the post then all of @ADPCnet followers can potentially see the post even if they don’t follow the user.


For example:

“The conference held by @ADPCnet last week was very informative.”

This style of tagging can be very useful if the user want to extend the reach of their message and push their account on Twitter. One or two tags are acceptable each post, but any more is often seen as too much.

Posting Examples

Facebook:

**Asian Disaster Preparedness Center**

October 20 at 5:36pm · Edited · 

Shamshad Akhtar, Executive Secretary of UN-ESCAP speaks during the launch event of The State of Asia-Pacific Cities 2015 report during the Sixth Asia Pacific Urban Forum (APUF-6).


The report contains information about the key challenges involving urbanization throughout the region. The Executive Secretary highlighted that the region experienced 1.9 million fatalities from disasters between 1970 and 2011.

Therefore, there is a pressing need to strengthen the capacities of cities and their populations to survive, adapt and thrive in the face of stress and shocks brought on by natural disasters and climate change.

<http://unhabitat.org/.../the-state-of-asian-and-pacific-citi.../>

#APUF6




 Like  Comment  Share  Buffer

4 people like this.

2 shares

Twitter:

**ADPC** @ADPCnet · Aug 31

Beth Paige, @USAID Mission Director, & Charles Bolden, Administrator of @NASA, shortly after the #SERVIRmekong launch



Instagram:



How to measure the effectiveness of a social media strategy

Another value of social media is the ability to track its effectiveness. Facebook and Twitter have built in analytical tools that show how many users engaged with a profile and specific posts. Free and software for purchase is also available to track social media use, but the built in analytics of Facebook and Twitter are a good place to start.

These tools can be used to monitor your social media influence over time. Generally, the more quality posts are sent the high engagement will ultimately become. The built in analytics can help the goal of increasing user engagement, ultimately raising the awareness of the page by an outside audience, by showing administrators not only how their social media efforts are growing, but also which type of posts are getting the most engagement.

The following is a summary of what the built in analytical tools from Facebook and Twitter have to offer.


Facebook Analytics Show:

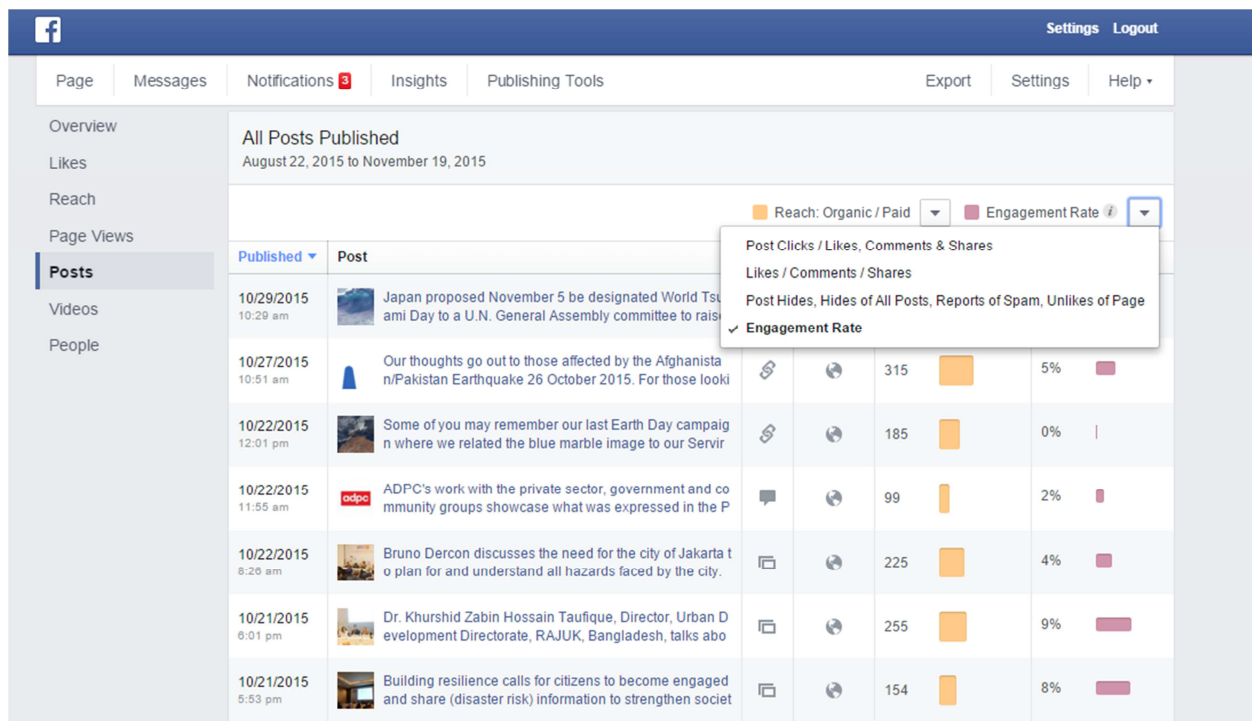
Page Likes: Total number of likes on the Facebook page

Reach: Post reach is the number of people who have seen your post. Your post counts as reaching someone when it's shown in News Feed. Figures are for the first 28 days after a post was created and include people viewing your post on desktop and mobile.²³

Engagement: Engagement rate is the percentage of people who saw a post that liked, shared, clicked or commented on it. Facebook provides details on the number of likes, comments, shares and post clicks.

To see the engagement rate for your posts:

1. At the top of your Page, click **Insights**
2. Click **Posts**
3. Scroll down to **All Posts Published**
4. Click  to the right of **Post Clicks / Likes, Comments & Shares**
5. Select **Engagement Rate** from the dropdown menu²⁴



²³ Facebook, "How is reach defined for each of my Page posts?" November 19, 2015. Retrieved from: <https://www.facebook.com/help/241332825914969>

²⁴ Facebook, "How is engagement rate defined?" November 19, 2015. Retrieved from: <https://www.facebook.com/help/178043462360087>

Facebook analytics also shows in depth details of your five most Recent posts. It will give information such as:

- **Type of post:** The posts are categorized as either a Photo, a post which includes a photo; Link, a post that includes a link that Facebook generates a preview for; or status update that is a text based post.
- **Targeting:** Who the post is shared with. This will most often be the public.
- Reach
- **Engagement**

What type of Facebook posts will users be interested in?

Different pages have different strategies to engage users, therefore their types of posts differ. However, Facebook describes that in general the most engaging Page posts are those that are short, original, give benefits to the person viewing the content and connect to the Page's objectives and identity.²⁵

"People tend to respond well to the following types of posts:

- **Photos and videos:** Bright, colorful images depicting human interaction are particularly successful. These could be photos of a seasonal menu, in-store event, new products arriving or people enjoying their experience with your product or service.
- **Facebook Offers:** Bring people to your business with an [offer](#) they can claim and share with their friends. Publishing discounts and promotions is a good way to get the attention of new and existing customers.
- **Questions:** Asking questions encourages interaction and tells people their opinions matter. When you ask for feedback or thoughts, make sure to respond in the comments so people know you're listening."²⁶

²⁵ Facebook, "What are the most engaging types of Page posts?" November 19, 2015. Retrieved from: <https://www.facebook.com/help/215169031896481>.

²⁶ Ibid.

Twitter Analytics Show the following:

Account summary metrics:

- **Tweets:** Number of times you Tweeted
- **Tweet impressions:** Number of times users are served your Tweet in timeline, search results, or from your profile
- **Profile visits:** Number of times users visited your profile page
- **Mentions:** Number of times your @username was mentioned in Tweets
- **New followers:** Number of new followers you gained
- **Tweets linking to you:** Number of times your Twitter Card(s) was Tweeted by you and/or other people

Monthly highlights:

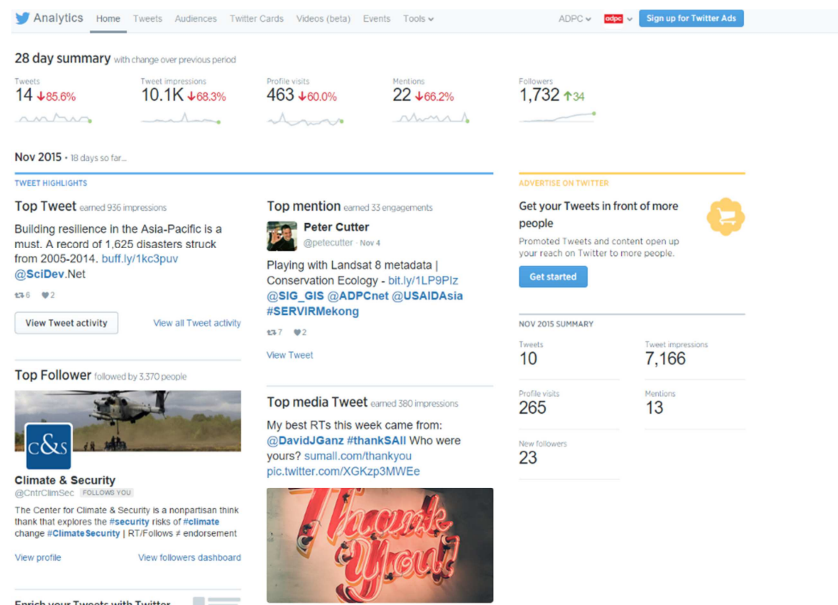
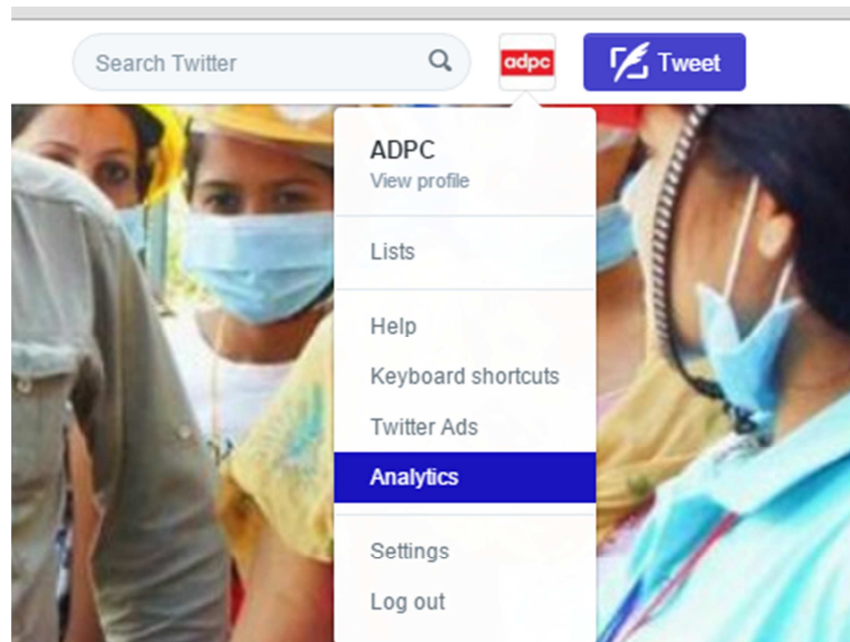
- **Top Tweet:** Tweet that received the highest number of impressions
- **Top media Tweet:** Tweet with photo, video, or Vine that received the highest number of impressions
- **Top Card Tweet:** Tweet with a Twitter Card that received the highest number of impressions; this can include other people's Tweets
- **Top mention:** Tweet that mentioned your @handle and received the highest number of impressions; this can include other people's Tweets
- **Top follower:** Account with the highest follower count that followed you in a given month

You can select the **View Tweet details** button to learn more information about a specific Tweet or select **View follower** to find out more about your top follower.

Twitter, "Account Home," November 19, 2015. Retrieved from:

<https://support.twitter.com/articles/20172496?lang=en>

You can reach the Twitter analytics page by logging into Twitter, clicking your profile picture in the top right corner of the screen, and clicking “Analytics” in the drop-down menu.



Popular forms of social media

Throughout the document Facebook and Twitter are the highlight due to their popularity and usefulness in disaster risk management. There are a variety of other social media applications such as Instagram, Vine, Tumblr and Pinterest. Some applications have more of a disaster risk management capability than others, but since this technology is evolving so quickly it's important to stay informed about these new technologies. While they were not covered as extensively through the document, that does not mean they could not be explored further.

As stated earlier, what should drive a social media campaign is the target audience. If the target audience is on a different form of social media, there should be ways to explore the potential of using the application for disaster risk management.

Instagram in particular, is gaining in popularity. With the use of hashtags and mentions the picture sharing service has potential for disaster risk management similar to Twitter. While the sharing ability is limited to photos, Instagram can be a useful platform to follow due to users sharing pictures that can be related to disaster risk management.

Useful tools to help manage social media

There are a variety of free social media management tools available for download commonly referred to as social media “dashboards.” A social media dashboard is a social media tool that individuals or companies can use to coordinate a social media presence across multiple channels or accounts, through a single surface²⁷.

Most services are free to use, but only provide limited services. While the free version serves most purposes, the paid version offers additional benefits depending on the dashboard. The best way to find the service worth paying for is by determining which complements the needs of the social media strategy the greatest. If the paid service makes social media use more convenient, and provides in-depth analytics beyond the information already provided by the built-in analytics of Facebook and Twitter, it may be worth looking into as a paid membership. However, most of these dashboards provide information that will help private-businesses selling a product more than an organization or government department.

Useful dashboards include:

Buffer

Hootsuite

Gremlin

Sprout Social

²⁷ “Social media dashboard definition,” *TechTarget*. Retrieved from:
<http://searchcontentmanagement.techtarget.com/definition/social-media-dashboard>

ANNEX 2: List of verified social media channels per country and ICT applications for Disaster Risk Management

Google Crisis Response (<http://www.google.com/crisisresponse>)

Google crisis response makes critical information more accessible around natural disasters and humanitarian crises. This initiative is a project of Google.org, which uses Google's strengths in information and technology to build products and advocate for policies that address global challenges.

OpenStreetMap (<http://www.openstreetmap.org>)

OpenStreetMap is a non-profit web project with the goal to provide a free and open map of the entire world. The map is created from geographical data openly shared by private and government agencies as well as contributions from individuals personally mapping specific locations. Because the OpenStreetMap data is raw geographical data, rather than simply images, and is openly shared, it is a valuable resource for DRM solutions. OpenStreetMap also has a Humanitarian Team who are committed to providing GIS solutions for disaster response and economic development.

Ushahidi (<http://www.ushahidi.com>)

Ushahidi is a non-profit tech company that develops free and open source software for information collection, visualization and interactive mapping. The Ushahidi platform can be used for crowd sourced crisis mapping by combining multiple streams of information from the various actors involved.

Iloilo City Disaster Risk Reduction Management Office
(https://www.facebook.com/IloiloCityDRRMO/info/?tab=page_info)

Caters to all types of emergency around our area of responsibility in the City of Iloilo in the Republic of the Philippines. Formed in 2003 as one of the pioneer LGU maintained emergency response service all over the Philippines under the in-house response team called Iloilo City Emergency Responders (ICER).

Myanmar Department of Meteorology and Hydrology (<https://www.facebook.com/pages/Department-of-Meteorology-and-Hydrology/1377002349208244?fref=ts>)

The Department of Meteorology and Hydrology (DMH) of Myanmar is responsible for providing timely, important weather and climate services to different sectors in the country such as agriculture, water, aviation, fisheries, military, etc. The weather and climate services, which include generation of information and warnings, dissemination, with state-of-the-art models to convey information surrounding weather and climate related hazards.

National Risk Reduction Consortium @NepalDRR (<https://twitter.com/nepaldrdrr>)

The Nepal Risk Reduction Consortium (NRRRC) is a Unique arrangement that unites humanitarian and development partners with financial institutions in partnership with the Government of Nepal in order to reduce Nepal's vulnerability to natural disasters.

JBA Risk Management @JBARisk (<https://twitter.com/jbarisk>)

JBA Risk Management specializes in hazard mapping and catastrophe modeling in flood and other natural perils. Cutting edge technology and datasets are used by re/insurers across the globe and additionally by property search companies, local [authorities](#), utility companies and those in the legal profession.

TERM REFERENCES

<http://www.webopedia.com/TERM/F/follower.html>

http://webtrends.about.com/od/glossary/g/tag_def.htm

<http://blog.hubspot.com/blog/tabid/6307/bid/6126/The-Ultimate-Glossary-120-Social-Media-Marketing-Terms-Explained.aspx>

<http://blog.hootsuite.com/the-2015-social-media-glossary-207-essential-definitions/>

<http://dynamic.uoregon.edu/jjf/defineshareability.html>

<https://www.google.co.th/webhp?sourceid=chrome-instant&ion=1&espv=2&ie=UTF-8#q=what%20is%20a%20hashtag>

<https://www.google.co.th/webhp?sourceid=chrome-instant&ion=1&espv=2&ie=UTF-8#q=what+is+a+tweet>

<http://whatis.techtarget.com/definition/Facebook>

<https://en.wikipedia.org/wiki/Tumblr>

<https://en.wikipedia.org/wiki/Twitter>

<http://www.cnet.com/news/newbies-guide-to-flickr/>

<http://smallbiztrends.com/2015/08/what-is-periscope-how-do-i-use-it.html>

[Upcoming Case studies to be featured throughout the document:]

The Queensland Police Mythbusting campaign

The Queensland Police Service Media and Affairs branch initiated, in 2010, a trial run of utilizing social media accounts to connect to and relay information related to disasters to the public. The social media presence grew substantially over the course of extreme weather and flash flooding events. The #Mythbuster campaign was the QPS utilization of its social media presence in response to misinformation and rumors circulating on Twitter during these events. The platforms utilized by QPS were YouTube, Facebook and Twitter.

Ushahidi Crowdsourcing Platform

Ushahidi is a crowdsourcing platform that can gather and compile reports from a variety of sources during an event. The software takes information from sms, Twitter, email and a dedicated app and works as a way to manage and visualize that data to empower the crowd-sourced voice. The software has been used to better gather information on the ground during an incident to better focus response efforts. The software is publicly available and taps into established social networks and contact lists.

Unified hashtags in the Philippines

In 2012 the Government of The Philippines initiated a plan to consolidate hashtags on social media in order to concentrate the effectiveness of information gathering and dissemination of information on social platforms. They adopted the hashtags in tweets for disseminating government advisories, and for collecting reports from the ground. They also ventured into creating new hashtags, and into convincing media outlets to use unified hashtags. The new set of hashtags allowed consolidated monitoring and information sharing to better respond to and prepare for disasters. The unified hashtags program was focused on the Twitter social media platform.

American Red Cross Disaster Response Center

The American Red Cross established its Social Media Disaster Response Center to better establish its presence on social media. The center enhances the ARC presence on social media platforms in order to better equip themselves to listen to affected communities, increase the scale at which lifesaving safety and preparedness information is shared, and enhance the response efforts but helping responders to make better informed decisions about the communities which they will be targeting. The Digital Operations Center, as it is now known, monitors and spreads information on Facebook, Twitter, YouTube and blogs.

Adam's Love Campaign

Adam's love campaign is an information campaign that applied new communication methods to raise awareness of HIV/AIDS in the gay community in Thailand. Traditional methods had limited success and this new strategy to a lasting health issue reached 1.69 million people in the form of website views and

11,120 gay men received online counseling. A large part of this campaign was the use of social media including Facebook, Twitter and Youtube.

NDMI Korea: Real time monitoring system for social media: Social Big Board.

Realtime monitoring system of social big data, named Social Big Board, for disaster management. This system crawls social big data, especially Twitter, analyses the disaster-related tweets, and displays disaster situations and trends in a map. We substantiated that there is the potential for utilization on our system to monitor disasters situations and trends in real time and grasp the point from big tweet data.

Open Street Map

“When there is a humanitarian crisis, such as the Nepal earthquake, OpenStreetMap (OSM) volunteers from around the world rapidly digitize satellite imagery to provide maps and data to support humanitarian organizations deployed to the affected countries.

The Humanitarian OpenStreetMap Team (HOT) coordinates that effort, partnering with relief organizations to focus map editing on the places most in need. HOT provides detailed and accurate maps (i.e., the road network, villages, buildings, etc.) very quickly, so humanitarians can locate people at risk and deliver goods and services to the areas that need them most. HOT is the bridge between the OSM community and the humanitarians.

OpenStreetMap servers, editors and geodata tools enable HOT to offer these free maps and export services to the humanitarian community. The OSM community support for these efforts also is impressive, mobilizing thousands of volunteers to make edits to the map.”²⁸

Here are some highlights of the progress the community has made mapping Nepal.²⁹

- Detailed mapping of an area of 10,000km² in 4 days, including coverage of road networks, hiking trails, built-up areas, building footprints, river crossings and temporary relief camps
- Quadrupled road mileage and added 30% more buildings in 48 hours
- Identified 15 priority areas, 8 of which have been completed and validated
- Attracted over 2,000 volunteer contributors from around the world, 1/3 of whom are new mappers
- Made maps available on the web as half hourly data exports, print maps, and offline maps for Android

²⁸ http://wiki.openstreetmap.org/wiki/2015_Nepal_earthquake

²⁹ <https://www.mapbox.com/blog/mapping-nepal/>

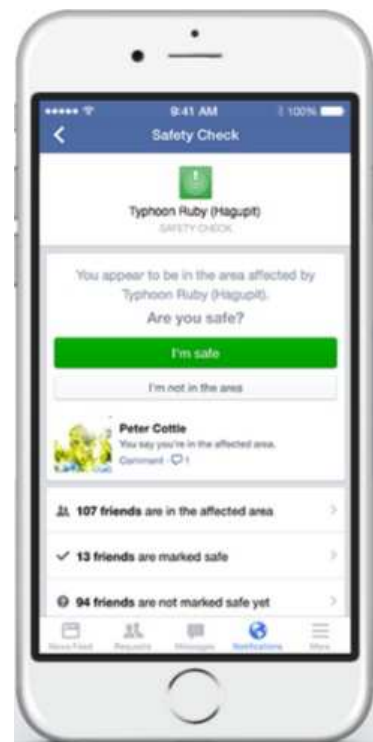
Extended Case Study Examples

Safety Checks on social media

The often-unavoidable chaos that ensues during a complex emergency or following a disaster can separate families and friends and leave loved ones with a sense of worry that can be hard to remedy amidst the confusion. The prevalence of mobile devices, social media profiles and the recent efforts by tech companies to mobilize those assets to connect loved ones facing the aftermath of a disaster have proven to be effective in dissuading fears and reconnecting separated family members and friends.

The core principle of these social media applications to humanitarian practices is simple, collect basic information from those who are safe following a disaster, and provide that information in conjunction with missing person databases, to be accessed by anyone in need. Three separate platforms have created applications that highlight the effectiveness of this initiative, The American Red Cross Safe and Well, Google Person Finder, and Facebook's Safety App.

Google Person Finder helps people reconnect with friends and loved ones in the aftermath of natural and humanitarian disasters.



The utility of Google Person Finder was demonstrated during the complex emergency presented by the Boston Marathon bombing in 2013. A case where participants and spectators were quickly able to relay updates on their status to a website quickly calmed fears of many in the area. The application, though effective for complex emergencies such as this, is also applicable to disasters, as it was initially developed to connect people following the 2010 Haitian Earthquake. A recent mobilization of the application took place in Nepal following the 7.8 magnitude earthquake that hit the country. Same day collection and dissemination had over 600 records of posted details of people affected by the disaster that could be searched by loved ones.

Similarly Facebook, with its nearly worldwide proliferation, can provide information quickly and in a simple format to friends and family members involved in a crisis. Developed after the 2011 Japanese Tsunami, The Safety app was used again in the Nepal context. It proved to calm fears of friends and

family in India worried about individuals in Kathmandu following the earthquake. The safety status in the app can also give first responders information as to where an individual might be trapped to aid in a rescue operation.

Finally, The American Red Cross Safe and Well database serves to collect information as individuals and groups make contact with Red Cross entities throughout the world following a crisis. Both those affected and those looking for information about the crisis can easily access the database through phone and web access. The site also collects data from missing persons databases. Red Cross sheltering and care units can effectively provide identifying data to the site about the individuals who present themselves to those locations. Recent floods in Myanmar affected over 89,000 people and over 1,000 of those displaced were recorded with the local Red Cross safe and well registry.

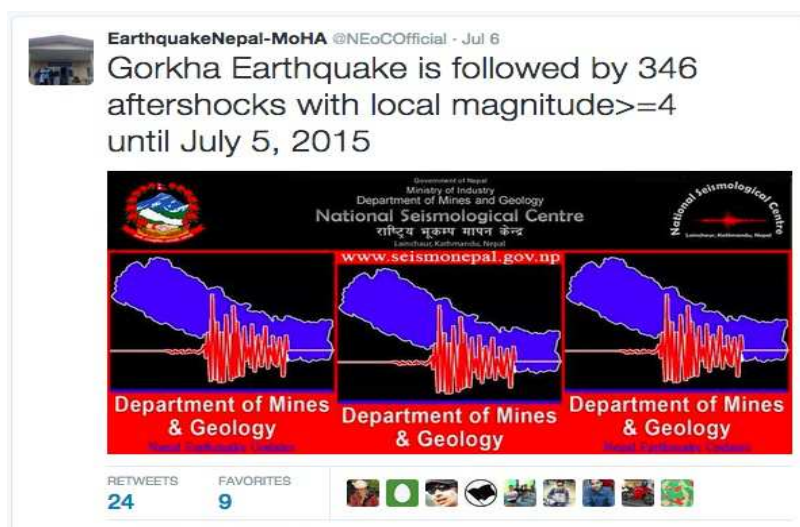
Awareness campaigns of these notification platforms in areas prone to disaster can serve to mitigate stress and chaos in the often-complicated scenes following a crisis.

Social media for Governments

The ubiquitous nature of social media and its service as an outlet for information sharing and news, serves as a valuable tool for government agencies dealing with disasters. The nearly instantaneous, succinct and wide reaching platforms such as twitter provide governments with a way to reach people and organizations with vital information. The recent tragedy of the 7.8 magnitude earthquake in Nepal highlights the need for specific government agencies to make an investment in social media mobilization and information dissemination.

The Nepalese National Emergency Operation Center is a key player in disaster response and information sharing during and after a disaster strikes. The twitter account for the Center relays valuable information on warnings, statistics, fundraising opportunities and specific information relating to disasters in the country. The account was set up in 2015, after the initial earthquake hit the country in order to augment the organizations information sharing power. After three months following its establishment, the twitter feed has upwards of 12.3K followers. The remarkable statistic remains that those 12.3K individuals and organizations have followers themselves that can re-tweet information, sharing a single tweet to tens of thousands.

The value of this information-sharing platform was realized by other government agencies as well:



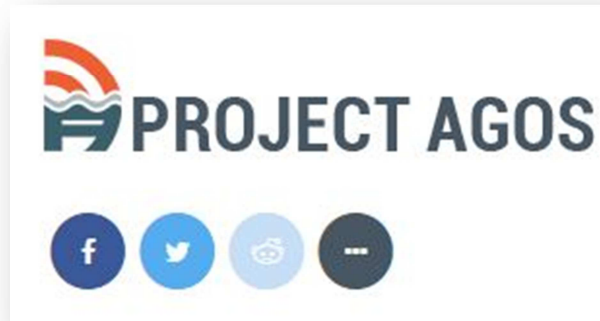
This tweet, re-tweeted by 24 individual accounts reached a total of 69,870 twitter feeds.

"Since April 25, the day of the first earthquake, the government set up a number of Twitter accounts, including for the Prime Minister's Relief Fund, the National Police and the National Emergency Operations Center. Officials have realized they have to interact with citizens about issues that matter- and have been using these channels to fix problems related to the recovery efforts. The government is also disseminating data on all relief funds collected and disbursed through an Earthquake Relief Portal."³⁰

The far-reaching nature of the software, the simplicity of a tweet, and the ease of use provides important government agencies with a powerful tool for information sharing before, during and after a disaster. The Nepalese government will be better prepared for the next disaster by having these platforms set up ahead of time with clear avenues for information sharing. A lesson to be shared to agencies throughout the world.

³⁰ Shaky, Blair. 'Shaking Up The Status Quo In Nepal'. *Nytimes.com*. N.p., 2015. Web. 23 Sept. 2015.

Project Agos



Project Agos provides an interactive platform for governments, civil society and communities to share information related to severe weather events via google maps and social media. The platform combines top-down decision making with bottom up crowd sourcing.

Rappler, a news website based in the Philippines, launched the platform in 2013. It gives people the ability to report on disaster impacts. This can help both the public and decision makers follow the impacts of an event in real time and provide aid when needed.

Anyone with an internet connection can use the platform to report flooded areas, damaged infrastructure and people in need of rescue, or to create a general alert.

A screenshot of the Project Agos web interface. At the top, there is a header with a pencil icon and the text "What's happening in your area?". Below this is a text input field containing the report: "Juan dela Cruz reports that there are two men stranded at the Tumana public Market in Marikina. Contact Juan at 09173333333". Under the text field is a "Choose File" button and the text "no file selected". Below this are three alert type buttons: "INFO ALERT" with a yellow information icon, "RESCUE ALERT" with a red exclamation mark icon, and "FLOOD ALERT" with a blue water drop icon. Each button has a small circular toggle switch to its right. At the bottom, there is a location pin icon and the text "Philippines".



In September 2014, during Tropical Storm Fung-Wong, known as Tropical Storm Mario in the Philippines, community members using Project Agos saved a trapped family, a woman in labor, and a patient with human immunodeficiency virus (HIV).

Many other flood victims were rescued with more than 180 rescue, relief, and other critical information posts plotted on Project Agos' Alert Map by avid internet users, including volunteers from organizations around the Philippines.

People can also use the platform to view critical information such as weather reports, typhoon paths and hazard areas in real time.

Daily weather reports generate a hashtag which helps to classify crowd sourced information. This classification system using hashtags make it easier for people to search for, gather and report information on specific disasters.

Project Agos is currently only available in the Philippines and daily weather reports are generated by the Philippine Atmospheric Geophysical and Astronomical Services Administration (PAGASA). These reports help to issue a detailed forecast that is easily downloadable and helps community preparedness on a daily basis.

What's the weather like in your area? Tweet us the situation: Use #weatheralert and tag @rapplerdotcom

DOST PAGASA MTSAT IR1 2015-09-07 4:32:00 PM PHT

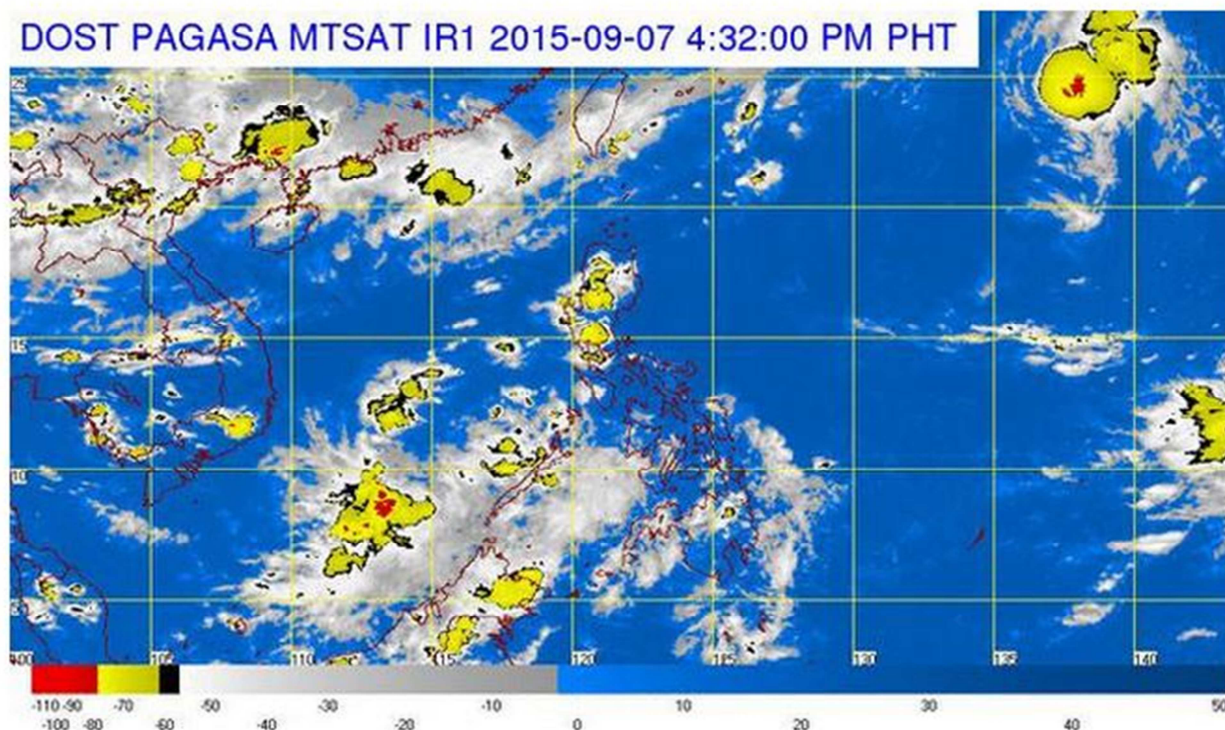


Image courtesy of PAGASA