When Disasters Strike Digital Communities Take Action: The Impact of Social Media

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Introduction to the topic: social media, digital communities, and disasters

In today's society, social media and digital communities has a significant role in emergency response instances, especially when it comes to disasters. Numerous of times social media has emerged as the main source of information during and after natural disaster events. According to statistics, one out of five Americans have used an emergency app during a natural disaster, 18% have retrieved emergency information via Facebook. About 25% send Twitter Direct Messages, and 37% use social media to buy supplies and find shelter. The world is no longer solely dependent on public officials or broadcasting channels to get updates on disasters that occur in all corners of the world.

Society's dependence on social media has continued to increase over the past decade. During natural disasters, social media platforms were heavily used to communicate with loved ones, contact authorities, and provide updates on the disaster. Emergency workers and volunteers utilize social media tools to locate people in need, map damaged areas, and organize relief efforts. These people are now known as "Digital Responders" or "Digital Humanitarians," who immediately log on when news breaks about a natural disaster or human-created catastrophe. Clearly, social media has transformed the way we receive our news and every few seconds we are constantly informed by the news updates. According to the Federal Emergency Management Agency (FEMA), users sent over 20 million Hurricane Sandy related tweets even with the loss of cell phone service during the eye of the storm. During the 2011 Thailand flooding disaster, global onlookers took an active role in alleviating the crisis by forming Facebook groups to mobilize volunteers, update information on water levels in different areas, and coordinate donation flow. In fact, over 50 groups were formed for these purposes. Though

the technology behind these new age advances connect us more than ever, there are various pros and cons that inevitably follow.

Context

The use of social media and members of digital communities grow at an exponential rate, highlighting that social media platforms and sites have become a fundamental part of our society and are embedded in our habits. People have been trying to understand and prevent natural disasters since the beginning of time. In the present state of the world, we are all exposed to the possibility of experiencing a disaster or crisis at any given moment and it is important to be prepared. The time we dedicate now towards preparedness may be the time needed to save more lives than ever before. In our Digital Age, it is vital that "Digital Humanitarianism" through digital communities is acknowledged, understood, and refined to its best so that the gaps in disaster response can be filled. These digital communities are an asset to government officials, first responders, and those being affected in times of disasters.

It is imperative to understand the power of social media and how information can be shared in a matter of seconds. The increased participation in social media has contributed to more activism and movements for the greater good of society. This has had a positive impact in the way people are receiving news through social media platforms, such as Facebook and Twitter, shared through peer-to-peer networks. Social media has become a quick resource which enables us to reach out to large audiences and allows us to encourage ongoing interaction. It is very important to understand how to use social media and its functions in order to reach larger masses; the higher the reach you have, the stronger the outcome you will receive.

There are conspicuous benefits that come from the use of digital communities but it is of utmost importance for individuals to be made aware of the dangers and risks that come with it, such as criminal activity via the web. It is possible that a good portion of the population is uneducated in cyber laws, and all individuals should be educated in digital laws and policies to avoid difficulties and misunderstandings. We must strive to understand the evolution of social media and digital communities as its dependency continues to increase. The reliance of government officials, social groups, educators and more on social media and digital communities demonstrate that it's here to stay. Therefore, it's important to understand how these two concepts can help us elevate as a society and how these tools have fueled various social revolutions.

As with many other subsets of our ever growing digitized global culture, it is paramount to analyze and study the impact of technology in regards to the analysis of social media and digital communities and its attendant role in emergency response. An analysis between social media and activism is crucial, especially in the current state of the world with numerous communities experiencing hurricanes, floods, and so on. If anything is discovered that can increase the positive impact that social media plays in charity and recovery response, it is our responsibility to implement these discoveries in our future social media use.

Disasters are usually unexpected, can happen anywhere, and create an environment of uncertainty and despair. Social media and digital communities have successfully managed to mitigate confusion and uncertainty by providing the world with instant information. The information being derived from social media and digital communities are usually the first channel of information that people receive, making social media and digital communities an area worth exploring. A conducted analysis in particular areas around the world will provide qualitative information on how effective social media and their digital communities are during natural disasters. We can gain insight on best practices that reach people in need of help and what people can do to help those in need.

This evolving mediascape has made us more globally aware and has had a positive impact on society. It is now commonplace for people around the world to use social media during emergencies, and the volume of online information coupled with its rapid arrival is becoming increasingly overwhelming to humanitarian organizations. Although local governments and aid organizations have been able to estimate the effects of natural disasters, they have not been able to monitor the effects of the disaster in real time. Social media is helping to address this issue. It is crucial for society to acknowledge the importance of social media as a way to find possible solutions in response to disasters and it has come extremely far in every aspect including saving the lives of those affected by natural disasters. This acknowledgment will further establish the need and urgency to help people, made possible with active clicks, whether through Twitter, via tweets, or through online donations. Hence, these platforms can make communities resilient in the living digital age.

Advantages and opportunities

Social media has brought much awareness and attention during our most difficult times; It allows us to connect with government officials, voice our concerns, donate to various rescue and relief groups, and simply share information (pictures, videos, etc.) between locations much quicker than before. Social media has become the forefront of communication. Information can be disseminated and received very quickly. This is ideal for accountability purposes. It enhances rescue operations and provides valuable incident assessment information. And during power outages, people that are residing within affected areas can still check social media platforms like Twitter to keep up with updates and news. Social media has also worked towards informing individuals in times of national crisis. When many were concerned over the Ebola outbreak in West Africa, the Centers for Disease Control and Prevention turned to social media to update the public on the state of the virus and dispel any myths circulating over the internet. FEMA, FEMA State of Emergency Offices, and the Center for Disease Control Emergency twitter accounts are all vital sources of information during natural disasters.

The advantages of social media during natural disasters is the ability to reach loved ones and make sure that they are safe. Take for instance the social media platform known as Facebook; it has created a new feature called "Safety Check". This feature allows you to mark yourself as safe if you are in the surrounding area of a natural disaster. Once you've marked yourself safe it

then notifies your family and friends on Facebook showing that you're in a safe zone and you can contact them. This innovative feature allows people in areas with no cell service to contact authorities or at the very least, to let their loved ones know that they are ok.

When disaster strikes, many are motivated to help those affected, however even if you possess the skills to help those people, it is not feasible to take a week off of work and attempt to go there and help. Which brings about another advantage of using Digital Communities in a relief effort is that people feel more compelled to help out in the relief effort process due to the ability to connect without having to go to the disaster. In her book *Superconnected*, Mary Chayko discussed how being a part of a digital community can evoke certain emotions. Social media and digital communities allow people to both spread the message when help is needed and donate resources which would have been nearly impossible in the recent past. When people post pictures and videos of disasters, others may feel empathetic and want to help out in any way that they can.

Another advantage is the fact that the production and participation of the people allows people to extend their relationships and to connect with society, something that may not happen otherwise. Networks built on relationships are more likely to inspire human emotion making the information more likely to be shared over a short period of time. Creativity is also something that should be considered. We now have the resources to be extremely creative when it comes to aid and outreach.

To take Puerto Rico and Hurricane Maria as an example: People are able to use various different avenues to contact people by using social media however apps like Venmo allow people to send money back and forth without even leaving the comfort of their own homes. With the advent of social media technologies, it has made it possible to immediately locate the communities and the homes of the people that have been destroyed by the Hurricanes. With every few seconds of the social media outlets disseminated with information in the news, it is possible to reach out to the mass audiences for communities in Houston, the Caribbean, and Florida as well as building strategies to get money and raise awareness about climate change in Puerto Rico. This has made clear that the massive role of Social Media in disasters has replaced the old way of doing things. Instead of a one way communication, government officials and responders can communicate directly with those affected to better assist those in the disaster. The communication and response is faster enabling a better response time, which can save hundreds of lives in the heat of the disaster.

There are even more advantages in using social media during natural disasters. Those are raising awareness (both about the issue and about our worldly community), real-time information and improvement in the process of sending and receiving information. And it also becomes easier to contribute to those impacted by natural disasters. Money sharing sites are linked all over Twitter and nonprofits have portals for online donations, helping people in need get supplies and money faster.

Aside of bringing awareness about the issue itself, social media platforms also makes us aware of our worldly community. Some networks have made it their business to form sub-sites within their mains that focus on the needs of those devastated by natural disaster. Facebook is one the leading pioneers in this department. Its "Safety Check" feature, developed in 2011, utilizes GPS tracking to ask its members if they are safe during a known crisis in their area. Should members indicate that they are safe, the system instantly notifies their family and friends of their status and whereabouts. If the member answers that they are not safe, however, Facebook provides them with a plethora of resources that are possibly reachable in their vicinity, such as supplies or shelter for refuge.

Yet another advantage of using social media during natural disasters is the fact that they are an excellent source of real-time information during natural disasters and in disaster relief efforts. They add value to community warning system structures that currently exist. Warning systems are extremely important during emergencies, it allows those affected by disasters to be updated with vital information. The conveyed information can then be utilized by citizens to take the best course of action at their disposal. Having a real-time source of information allow the community to be constantly updated. Indeed, this factor leads to have a readily available digital archive of events which allows the general public a means of staying in the know and to have the ability to review events on demand for academic purposes.

Finally, these platforms changed in better how information are sent and received. Social media is like a hero to some people that needed help but didn't have a way to get it. Consistent hashtags can create opportunities for people to track the natural disaster and collect data to help. Effective social media plans for these natural disaster emergencies can get people the help they need within the appropriate times they need it.

Dangers and challenges

As advanced as technology and social media has become, it is not perfect. Unfortunately, many people around the world cannot distinguish what is real and what is fake. The public has to realize technological tools such as these can not be heavily relied on to solve all of our world's problems. Therefore, when it comes to natural disasters in particular there are a few disadvantages of relying on social media and digital communities when seeking vital information. Firstly, a major disadvantage that social media can have when a natural disasters accrues is informing the public with false information. Social media gives almost everyone a platform and a voice, therefore information is easily reworded and passed on so quickly that it even confuses reliable journalist and government officials due to how much they actually rely on the public for vital information during critical situations such as natural disasters. Secondly, people use this sensationalism to take advantage during crises for personal and mainly financial gain. A recent example of this came about Hurricane Sandy, a New Jersey couple launched a charity website and claimed to be storm victims, ultimately raising $631,000. The couple actually used the funds to pay off credit card debt and other personal expenses. Apparently, they were one of many who tried to take advantage of the disaster situation and with the appearance of

hurricanes Irma, Maria, and Harvey, websites are warning online donors to be more cautious and advising on how to safely donate to legitimate organizations.

Without proper caution, people can rely on technology as an end-all-be-all, primarily in the light of natural disaster situations. In-person and Internet scammers have mastered the art of false persuasion by utilizing the sensitivity of disaster relief to their own advantages. However, it is crucial that people perform thorough research of their own to validate online programs and motives. More people doing this would significantly reduce the acceptance rate of false advertising. The mainstream media also has a tendency to skew information towards its preferences, so the audience must always send the information it receives through a mental filter before it resonates. Overall, the world, particularly that of the Internet, is full of misleading entities, so it is key to remain steadfast as disaster-related details are released to the public.

Conclusion

Nowadays, only 27% of millennials get their news from television. Digital media opens a door for more people have convenient access to what is going on in the world. Digital media is thus an excellent tool to bring awareness during natural disasters. But this essay has also pointed out some essential disadvantages of digital communities in disasters. The general consensus is that digital tools make our social means of communicating more convenient. The proper use of this technology creates an invaluable resource for information sharing when disaster strikes. Of course, there are two sides to every coin and there are times when inaccurate information is shared, people take advantage of the system, and individuals are excluded from the benefits of digital communities due to a lack of means or a disconnect in culture. However, the disadvantages do not dismiss the fact that digital communities are an excellent channel of communications that convey vital information to those affected by disasters. The correct use of digital technology has facilitated a more accessible and effective world by allowing individuals to reach and teach one another regardless of distance.

The overview conducted in the essay highlights that one's ability to remove oneself from the "digital hype" of today is vital to understanding the true nature of the beast. What is needed is more, and thorough research on the issue. By realizing and analyzing the impact of social media, we can continue to lead society towards a greater good. When studying digital communities, especially in the context of natural disaster response, we comprehend just how transformative online activism is and the positive change it facilitates, which then incites an effort to produce more of the same. Social media and digital communities are essentially bridging physical barriers and getting more people involved in one another's lives. This success signifies that even if social media is merely "pseudo-participation" by individuals, it can create a sizeable influence on the world when applied in large quantities. It is almost as if the conscious of the masses is reaching through social media to initiate the change that government fails to create. By analyzing through a bird's eye view of the cyber environment, we are able to distinguish our natural human behaviors based on our reactions to the technological resources in our reach. Analyzing this also allows for us to make improvements to our levels and methods of unity when in times of dire need. The dependency on media is only going to grow as time

goes on and we as a society must understand how important media is when disasters happen. Ultimately, digital media is a way for our communities to come together and help one another during times of devastation and will be an even more important means used during disaster communication in the future.

Further reading

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