Research Article | Araştırma Makalesi

The Role of Local Governments in The Context of Disaster Communication and Social Media: The Example of 06 February 2023 Kahramanmaraş Earthquake

Afet İletişimi ve Sosyal Medya Bağlamında Yerel Yönetimlerin Rolü: 06 Şubat 2023 Kahramanmaraş Depremi Örneği

Aziz BELLİ (Assoc. Prof. Dr.)
Kahramanmaraş Sütçü İmam University, Faculty of Economics and Administrative Sciences
Kahramanmaraş/Türkiye
azizdarende@hotmail.com

Abdullah AYDIN (Assoc. Prof. Dr.)
Niğde Ömer Halis Demir University, Faculty of Economics and Administrative Sciences
Niğde/Türkiye
abdullahaydin01@hotmail.com

Abstract

The February 06, 2023, Kahramanmaraş earthquake brought great destruction and loss of life to the region. In times of crisis, effective disaster communication is crucial to ensure public safety and facilitate response efforts. Local governments play a critical role in managing and disseminating information during disasters using various communication channels, including social media. This research aims to analyze the role of local governments in disaster communication during the Kahramanmaraş earthquake. In particular, it examined how local governments use social media for disaster communication, the strategies they use to manage information dissemination, and the effectiveness of their communication efforts. By exploring these key issues, this study aims to provide insights into the vital role of local governments in disaster communication and contribute to improving future disaster response efforts. In this context, using the case study method, the posts of Kahramanmaraş Metropolitan Municipality on X accounts were analyzed between February 06, 2023, and March 09, 2023.

Keywords: Communication, Disaster Communication, Local Governments, Kahramanmaraş, Metropolitan Municipality.

Öz

06 Şubat 2023 Kahramanmaraş depremi bölgeye büyük yıkım ve can kaybı yaşattı. Kriz zamanlarında, kamu güvenliğini sağlamak ve müdahale çabalarını kolaylaştırmak için etkili afet iletişimi çok önemlidir. Yerel yönetimler, afetler sırasında sosyal medya da dahil olmak üzere çeşitli iletişim kanallarını kullanarak bilginin yönetilmesi ve yayılmasında kritik bir rol oynamaktadır. Bu araştırma Kahramanmaraş depreminde yerel yönetimlerin afet iletişimindeki rolünü analiz etmeyi amaçlamaktadır. Özellikle yerel yönetimlerin afet iletişimi için sosyal medyayı nasıl kullandıklarını, bilgi yayılımını yönetmek için kullandıkları stratejileri ve iletişim çabalarının etkinliğini incelenmiştir. Bu çalışma, bu temel hususları araştırarak, yerel yönetimlerin afet iletişimindeki hayati rolüne dair içgörü sağlamayı ve gelecekteki afet müdahale çabalarının iyileştirilmesine katkıda bulunmayı amaçlamaktadır. Bu kapsamda örnek olay yöntemi ile Kahramanmaraş Büyükşehir Belediyesi'nin X hesaplarındaki gönderileri 06 Şubat 2023-09 Mart 2023 tarihleri arasında incelenmiştir.

Anahtar Kelimeler: İletişim, Afet İletişimi, Yerel Yönetimler, Kahramanmaraş, Büyükşehir Belediyesi.

Introduction

On February 06, 2023, the city of Kahramanmaraş was hit by a devastating earthquake that left thousands of dead, injured, and homeless. Following the disaster, local governments were given the responsibility to provide emergency response and disaster communications to the affected communities. However, traditional communication methods proved insufficient to meet the needs of the affected population. In this context, social media platforms emerged as an important tool for disaster communication. As a matter of fact, the use of social media for disaster communication has become increasingly widespread in recent years. Social media platforms such as X, Facebook, and WhatsApp were used to disseminate information and updates during disasters. The effectiveness of social media in disaster communication has been widely recognized with studies showing that social media can provide real-time updates and facilitate communication between disaster responders and affected communities. Compared to traditional communication methods, social media has the advantage of reaching wider audiences and providing more accurate and up-to-date information. However, the use of social media for disaster communication also has limitations such as the spread of misinformation and the potential for social media to be overwhelmed by the volume of messages during a disaster.

Local governments have important roles in disaster communication. They are responsible for providing timely and accurate information to affected communities, coordinating relief efforts, and ensuring the safety of the population. However, local governments face several challenges in disaster communication, including a lack of resources, the complexity of coordinating multiple agencies, and the need to communicate with different communities. After the 06 February 2023 Kahramanmaraş earthquake, local governments were criticized for slow response and inadequate communication with the affected communities. This highlights the need for local governments to develop disaster communication strategies and work in collaboration with other institutions and community groups. In this context, this study aims to reveal how local governments use social media communication tools in the disaster communication process. Achieve this aim, X social media accounts of Kahramanmaraş Metropolitan Municipality were analyzed between 06.02.2023 and 09.03.2023 by means of import-direct analysis method. The theoretical framework of the study consists of primary and secondary data obtained from domestic and foreign sources. As a result of the applied content analysis, an answer will be sought to the question for what purposes Kahramanmaraş Metropolitan Municipality used X social media account during and after the earthquake. Another research question is to determine the communication and coordination between the works of Kahramanmaraş Metropolitan Municipality and other institutions and organizations through social media account X. The research generally consists of two parts. In the first part, information on the concepts that constitute the theoretical framework of the study is given. In the second part, X social media accounts of Kahramanmaraş Metropolitan Municipality are analyzed. The study is completed with the conclusion section.

1.Theoretical Framework

The concept of disaster and disaster management, which constitutes the theoretical framework of the study, is first analyzed. After the examination of this concept, disaster communication, and social media in disaster communication are discussed.

1.1. Disaster and Disaster Management

A disaster can be a naturally occurring event, a technological failure, or a situation caused by human actions (Şahin , 2019, p. 182). Disaster refers to natural, man-made, or technological events that cause physical, economic, and social harm to a community or certain segments of society. What follows a disaster is not the event itself, but what defines it. Examples of disasters include geological disasters such as rock falls, landslides, and earthquakes; meteorological disasters such as droughts, floods, and storms; and man-made disasters such as environmental pollution, nuclear and chemical accidents, major fires, terrorist incidents, and wars. For an event to be considered a disaster, it must cause damage to people, settlements, and communities and interrupt human activities. In fact, it is not the event itself that defines a disaster, but its outcome. The size of a disaster is measured by the amount of loss of life and property it causes (IMO, 2024). As a matter of fact, in order for an event to be classified as a natural disaster, it must result in death, injury and material loss above a certain threshold (Şahin , 2019, p. 182). Considering that human life is valued above all else, the public tends to evaluate the magnitude of the disaster according to the number of lives and injuries lost (Erkal & Değerliyurt, 2009, p. 149):

These events cause physical, social, and economic losses affecting the whole society or a specific group of it. Such events disrupt the normal course of life and human activities, and the ability of the affected community to cope with them is often inadequate. Disasters can occur as sudden or gradual events. Earthquakes, avalanches, landslides, volcanic eruptions, typhoons, and flooding are classified as sudden disasters because they cause immediate damage. On the other hand, global warming, drought, environmental pollution, deforestation, erosion, and atmospheric events are considered potential hazards as they develop gradually over time (Şahin , 2019, p. 182).

Given that disasters are an inherent aspect of human existence, it is imperative that effective measures are taken to manage the various stages of these events at all levels. This is necessary to reduce the extent of damage caused by such events (Bilgili & Sanatçı Aktaş, 2022, p. 409). Despite the advances in knowledge and technology achieved by humanity, it remains vulnerable to the effects of natural disasters. Natural events such as earthquakes, droughts, volcanic eruptions, and storms have the potential to cause significant disruptions. The occurrence of disasters is not immune to human intervention, especially when it comes to prevention. Mankind's limited capacity in this regard requires research, the formulation of comprehensive plans and their rigorous implementation to reduce or mitigate the impact of these disasters on society. All collective efforts aimed at raising awareness about natural events in the environment, understanding their underlying causes and developing strategies to counter or minimize their effects are called "Disaster Management" (Erkal & Değerliyurt, 2009, p. 151). Human's ability to prevent disasters is limited. The best behavior that can be done both today and in the future against such events is to conduct research, take precautions, develop different strategies, and put them into practice. The aim of these plans is to reduce or completely eliminate the effects of disasters on society. "Disaster Management" is the term used to describe all studies that inform people about natural events occurring in the environment they live in, give detailed information about their origins, and inform them about how to avoid or minimize damage in case of a recurrence of an event (Gökçe & Tetik, 2012, p. 8).

Disaster management is a growing field of study that looks at how to better prepare for, respond to, and recover from disasters. It is recognized that each disaster is a unique

event and needs to be handled differently. Contemporary management thinking and understanding are needed to develop an effective disaster management plan. Disaster management involves a comprehensive process that starts before the occurrence of a disaster and continues after the disaster until it is completely resolved. Typically, this process is divided into four phases: pre-disaster preparedness and mitigation, and post-disaster response and recovery. In each of these phases, different institutions work autonomously. For example, in the pre-disaster phase, local government units are responsible for the construction of disaster-resistant buildings, while rescue teams and medical professionals are responsible for the rescue and treatment of affected individuals in the post-disaster phase (Bozkurt & Demir, 2023, p. 30).

Disaster management involves a comprehensive and permanent approach, unlike emergency management, which deals with emergency situations. Emergency management involves coordination between organizations and individuals responsible for the rapid and systematic provision of the necessary technical and administrative assistance. It ensures that immediate interventions and basic needs are met. Disaster management goes beyond these immediate needs to include social, psychological, and cultural aspects. By promoting solidarity, cooperation and common feelings among the affected communities, disaster management not only helps the recovery process but also alleviates the distress caused by the disaster on time (Başaran & Akyüz, 2022, p. 79).

The traditional disaster management life cycle consists of four main phases: preparedness, mitigation, response, and recovery. Preparedness is the stage where organizations and individuals establish plans and procedures to ensure that they are well equipped to deal with a disaster and its aftermath. This includes establishing emergency response plans, training staff and understanding the potential risks associated with the disaster. Mitigation is the stage where steps are taken to reduce the impact of a disaster, such as zoning regulations to reduce flood risk or building sea walls to protect against hurricanes. Response is the phase where appropriate measures are taken to deal with the disaster. This may include evacuating people from affected areas, providing medical care and providing food and shelter to those affected. Finally, the recovery phase is where post-disaster reconstruction and rehabilitation take place. This includes rebuilding infrastructure, providing psychological counseling, and returning the affected area to its pre-disaster condition.

The concept of crisis management covers a broader scope that also includes disaster management. Crisis management can also be applied when the disaster requires the application of disaster management. The determination to implement crisis management measures often depends on the magnitude and consequences of the current disaster. It is worth noting that crisis management is not limited to natural disasters, but also covers other crisis situations such as terrorist incidents, unlawful strikes, lockouts, ethnic or religious conflicts, asylum problems, epidemics, severe economic crises, etc. Natural disasters that can trigger a crisis include earthquakes, floods, avalanches, landslides, and fires. In some cases, if deemed appropriate by the relevant authorities, crisis management may replace disaster management after post-disaster assessment (Akdağ, 2002, p. 37).

1.2. Disaster Communication

Considering the participation of different units in the disaster management process, it is of great importance to establish effective communication and coordination among them (Bozkurt & Demir, 2023, p. 30). Communication is at the center of all disaster

management procedures. Rapid and accurate dissemination of information to the society and all those interested in disaster management allows the disaster response and recovery process to be more effective. Simultaneously, communication efforts aimed at promoting attitudes conducive to disaster preparedness and damage reduction can help reduce the risks associated with future disasters. In the event of a disaster, it is essential to meet the growing information needs of all relevant actors, to disseminate information on disaster response actions to the appropriate parties, and to maintain the flow of information among all stakeholders regarding the post-disaster recovery process. This situation emphasizes the importance of developing and implementing a participatory-based communication strategy involving all disaster-related stakeholders under the coordination of public institutions (Boztepe Taşkıran, 2023, pp. 360-361).

But communicating during a disaster can be challenging due to a number of technological and logistical issues that need to be overcome. There are many different types of disasters, from natural events such as earthquakes and hurricanes to man-made events such as terrorist attacks and industrial accidents. Each of these presents unique challenges when it comes to communications. For example, fast-onset disasters like earthquakes can strain traditional communication channels and make it difficult for emergency responders to coordinate their efforts. Meanwhile, man-made disasters like the September 11 attacks can disrupt communications infrastructure and make it difficult to get messages to the people who need them. In a disaster where communication is disrupted, the extent of the damage may be greater than the disaster itself (Yıldırım, 2023, pp. 554-558).

It is important to establish and disseminate different communication mechanisms according to the size and type of each disaster. If we conceptualize this as disaster communication, in addition to providing accurate and timely disaster information, it is also important to define and communicate the scale and risks of the disaster well. Communication is an important tool in disasters. It is important to reduce fear and panic among the affected groups, prevent disinformation and ensure healthy information flow with other institutions. Another issue that makes communication so important is the development of internet technology. Today, information is power. Almost every organization and company use the internet to increase efficiency, communicate between units and access information (Yıldırım, 2023, pp. 554-558).

Communication with disaster victims is a process that requires attention and sensitivity. First of all, the aim is to communicate in a way that is sensitive to the needs and emotional states of disaster victims. Concepts such as sensitivity, empathy, understanding, and trust are some of the prominent concepts in this process. Considering that disaster victims may become emotional and vulnerable as a result of going through this difficult process, care should be taken to understand and respect their feelings while communicating. Communication with disaster victims usually takes place in emergency situations and is usually a collaborative process involving experts, aid organizations, health workers and volunteers. In this communication process, the basic needs of disaster victims are determined, and efforts are made to provide the necessary assistance and support to meet these needs (Bor & Avşar, 2023, p. 26).

As a result, effective disaster communication is essential for minimizing the impact of disasters and ensuring that aid is delivered to those in need. While there are many challenges to overcome, from technological issues to logistical complexities, there are also various strategies that can be used to help overcome these challenges. Ultimately,

by working together and leveraging the latest technologies and best practices, we can ensure that communities are better prepared for disasters and minimize the impact of such events.

In addition, recent global disasters have shown that communication systems based on electrical energy become inoperable in the aftermath of disasters and communication with affected areas is disrupted. This situation emphasizes the need to develop new communication systems in the disaster management process (Bozkurt & Demir, 2023, p. 30).

There are many important issues that need to be addressed within the scope of protecting communication systems after a disaster. These include organizing search and rescue in disaster areas, evacuating people, quickly identifying, and transporting urgent needs, ensuring security and other important tasks. In order to carry out all these operations, it is necessary to ensure rapid cooperation between the responsible teams and to establish a communication network for this purpose. Disaster relief organizations use various information and communication technologies to coordinate their work and establish the necessary communication. However, in order to keep up with these developments, technology must be constantly updated, and new versions must be created (Ortaç & Yıltas-Kaplan, 2021, p. 317).

1.3. Social Media in Disaster Communication

The advent of digitalization has brought about significant transformations in various aspects of modern life. One of the most notable changes is the way people access information, prioritize activities, and consume news. Social media is playing a pivotal role in this change by eliminating the temporal and spatial constraints of traditional media thanks to its advanced infrastructure. Social media has made it possible for individuals to access content continuously and from anywhere with a reliable internet connection. The number of social media platforms is increasing every year, leading to an increase in social media usage. Recent studies show that 58.7 percent of the world's population and 83.7 percent of Turkey's population use social media effectively. Before social media, people relied on traditional mass media and word-of-mouth to learn about social issues, environmental problems, and developments. However, with social media, communication has shifted towards social media platforms (Ağca, 2023, pp. 46-47).

Social media relates to online applications that rely entirely on user-generated content or where users' content and actions contribute significantly to the value of the platform. Social media is now a wide range of applications, ranging from instant messaging to social networking sites, offering audiences the opportunity to interact, connect and communicate with each other and their mutual friends. These applications involve the creation, launch and distribution of new and emerging online sources of information about audiences' experiences using products, brands, services and/or issues, allowing them to "post", "tag" or "blog". On the internet, among other things. Recent trends in Social Media use reveal not only an increasing number of people opting to use Social Media applications, but also a significant increase in the number of applications available (Ahmed, 2011, p. 5) (Ahmed, 2011: 5). Launched in 2006, X has cemented its place as the most widely used and recognized microblogging-oriented social network. X's logo conveys a sense of boundlessness, hope, universality, and freedom. A X post is a type of content of 280 characters or less on a website or application that provides a simple

interface for networking between individuals. On X, users have the opportunity to follow other people and organizations whose X posts they can read (Çanakçi et al., 2022, p. 886).

Social media has revolutionized the way individuals and organizations communicate with each other. These platforms have become a vital tool that facilitates interaction and information sharing, thanks to the developments in social media and internet technologies that diversify communication channels (Koçyiğit, 2023, p. 83). The role of social media in facilitating communication and information exchange is indisputable. This is especially evident in times of crisis, as individuals seek to connect with loved ones and obtain accurate information about the event. Recently, people are increasingly relying on the internet and social media as their preferred method of communication. In addition to campaigns to raise awareness before a disaster, social media provides quick access to information during a crisis (Demiröz, 2020, p. 298). Digital communications enable rapid, efficient, and widespread communication between affected individuals, emergency response teams and aid agencies. One of the main reasons why digital communication is vital during disasters is that critical information can be disseminated quickly. Social media, text messaging, and emergency alert systems are all examples of digital communication tools that can provide important updates on the disaster situation, including alerts, evacuation orders, and other critical information, to large numbers of people. Another key advantage of digital communications during disasters is its ability to facilitate better coordination of emergency response efforts. Real-time communication between emergency responders allows sharing of information regarding the status of the disaster and the resources needed to manage it. Finally, digital communications can also provide affected individuals with access to vital information and resources, such as emergency contacts, maps, and shelter locations. Digital communications serve many important functions in disaster management. First, it connects individuals with support services and aid organizations that can help during and after a disaster. Second, it can increase situational awareness among disaster responders and affected individuals through real-time updates on the location and status of the disaster, including changes in weather conditions or potential hazards. This increased awareness can help save lives, improve emergency response efforts, and provide critical information and resources to those affected by disaster. Therefore, digital communication is an important tool in disaster management and should be treated as such (Yıldırım, 2023, pp. 554-555).

In today's world, social media platforms are considered an important communication tool that facilitates information transfer and communication. During disasters, people often have both an interest and a need to learn about their families and communities. In some cases, a disaster victim trapped under a collapse publishes a video explaining his location on social media and can also try to locate his family by sending his address (Eldam Anar, 2021, p. 1130).

Social media has become an indispensable element of organizations and organizations can use social media to direct crisis and disaster management activities. Accessibility, innovation, usability, and permanence of social media; It can be used effectively in information dissemination, information collection, joint problem solving and decision making, disaster planning and education functions. By taking advantage of these features, organizations can better manage crisis or disaster situations quickly and effectively. Ignoring social media is not an option for organizations that need to adapt to their environment. As more people spend time in online social environments, organizations are increasingly turning to these mediums to communicate with their target audiences.

In crisis and disaster situations, it is in the interest of organizations to consider the functions of social media tools as a good opportunity for collaboration, management, communication, and preparedness actions (Yazıcı & Zincir , 2013, p. 80).

Issues such as information provided by disaster relief organizations, evacuation routes and aid delivery further increase user interaction, especially on social media networks. Users can directly or indirectly provide evacuation and assistance by interacting with disaster relief organizations and delivering various messages. In addition, direct interaction in information flows increases the impact on social participation in disaster preparedness, relief, and recovery processes. Establishing a direct connection with disaster relief organizations makes it easier and more effective to address many issues such as volunteering, donations, and aid (Öztürk & Demir, 2023, p. 511). After a disaster, it is possible to see the following advantages offered by social media (Yazıcı & Zincir , 2013, p. 77):

- Providing critical information to individuals in the affected area before and after the disaster is made possible by the use of internet or SMS updates.
- Recruiting volunteers and/or donors is one way to expand awareness beyond the boundaries of affected areas.
- This connection is made to bridge the gap between departed loved ones and families.
- he issue in question concerns both unclaimed property and, in the most unfortunate cases, deceased bodies.
- This resource provides valuable information about available assistance, support centers, and additional resources available to affected individuals or organizations.
- There are three basic rules to follow when it comes to using social media applications in emergency management.
- The importance of dialogue cannot be overstated.
- The presence of intermediaries or people in intermediary positions is unnecessary.
- It is imperative to provide an environment free from restrictions and limitations.

Today, active social media users are increasingly dependent on these platforms to access information, especially in times of crisis such as natural disasters or social events. This provides organizations with the opportunity to provide valuable information to their audiences. In order to effectively manage the crisis and provide accurate information, it is of great importance that official statements reach the right audience on time and the information is shared with other users (Koçyiğit, 2023, p. 72). However, it should not be forgotten that misuse of social media tools can lead to crisis situations. To prevent this, those responsible for providing information after a disaster must act calmly, base their information on reliable sources, and present it clearly and accurately. In case of a crisis that occurs after a disaster, it is of great importance to provide frequent information to the public. This helps prevent the spread of rumors and speculation that could lead to a secondary crisis. By informing the public about the status of the disaster, trust can be created, and the crisis can be managed more effectively (Demiröz, 2020, p. 298).

Social media can also have negative consequences, especially in crisis situations, as disinformation and fake news can spread rapidly. Sharing content from unknown sources can cause individuals to experience fear, anxiety and misdirection. Therefore, in order to combat disinformation and manage the situation effectively, it is essential to use social media platforms correctly and efficiently during crisis periods (Koçyiğit, 2023, p. 72).

However, while social media proves to be an effective communication tool, it also causes serious confusion in emergency situations or moments of crisis. This confusion often results from the dissemination of unverified or deliberately fabricated information without questioning its source. This type of misinformation poses a particular threat during natural disasters, prompting organizations to evaluate the risks and opportunities of social media more carefully. In such situations, ensuring effective communication, coordinating aid efforts, and sharing accurate information while taking precautions against disinformation is of great importance. X, a platform widely used in emergencies, poses a significant challenge in the spread of disinformation (Koçyiğit, 2023, p. 83).

The potential of social media to increase communication and information dissemination in disaster management is undeniable. However, there are concerns about the reliability of information obtained from social media sources. The first of these concerns is the accuracy of the information. Although the information on social media is generally accurate, there is a possibility that outdated or incorrect information may circulate. The second concern regarding the reliability of information is the misuse of social media. Social media can be used for pranks or terrorist attacks. Individuals may post false requests for help on social media platforms in non-emergency situations. Additionally, extremist groups may launch an initial attack and then seek help using social media to attract first responders to the area and harm them in a subsequent attack. One of the main issues regarding the reliability of information obtained from social media sources is the presence of bias in data production. Before we can fully trust the situation awareness created by social media data, it is very important to consider whether the data production is biased (Partigöç & Tarhan, 2019, p. 303).

After the disaster, ICT products and services cannot be used effectively due to the inadequacy of technological infrastructure, technical problems affecting the region where the disaster occurred, and lack of information on the use of social media. In order to find a solution to this problem, various institutions and organizations are working to guide citizens in the correct response to disasters. An example of this is the management and prevention of false news and rumors spread on social media during Hurricane Sandy, which had a devastating impact on the USA and Canada in 2012 (Partigöç & Tarhan, 2019, p. 305).

Apart from this positive development, unrealistic information spreading like an avalanche on social media platforms also negatively affects society and individual users of social media, and this information causes a large amount of controversy (Eldam Anar, 2021, p. 1130).

2. Examining the X Account of Kahramanmaraş Metropolitan Municipality in Disaster Communication

Kahramanmaraş Metropolitan Municipality shared its first X post after the February 6 Earthquake on February 8, 2023 (Kahramanmaraş Metropolitan Municipality X Social Media Account, 2024). There are two posts on this date. In the first post, there is a video of a person being pulled out from under the rubble after 46 hours. This video has 41 comments, 28 reposts, and 149 likes. When these post comments are examined, there are messages of people requesting help for their relatives trapped under the debris, addresses of the debris and names of the people trapped under the debris. In addition, the relationship between international aid organizations and local governments is also

included. Some post includes the expectations of citizens stranded on the streets during the earthquake regarding gathering areas. Under the same post, there is the name and address information of a person buried under the rubble in Adıyaman province.

The second post on February 8 is about assembly areas. This post received 30 comments, 62 reposts and 51 likes. When the comments in this post are examined, there are the requests of people in gathering areas and places close to their homes, and the contact information of institutions and organizations that provide assistance. As in the previous post, the names and addresses of individuals trapped under the rubble are also included. Comments on the assistance of different organizations are included here.

3 posts were sent on February 10, 2023. In the first post, the Municipality shared information about the mosques where Friday prayers will be held. This post received 2 comments, 1 repost and 14 likes. The addresses and names of the people trapped under the rubble are included in the comments made to this post. In the second post, information about places that distribute hot meals was shared. This post received 12 comments, 501 reposts and 371 likes. When the comments made on this post are examined, the names and address information of the people trapped under the rubble are mostly included. In addition, there are food service locations and hours of a non-governmental organization. This post also included information about different provinces. The 3rd post contains information about evacuations. It has been stated that there is unfounded news about a disaster victim certificate being requested during the evacuation process. This post received 22 comments, 57 reposts and 92 likes. In addition to comments about places to stay from different provinces, help is requested with the names and addresses of people trapped under the rubble. There are also comments about people in the gathering areas wanting to warm up due to cold weather conditions. In some comments, the X addresses of institutions and non-governmental organizations related to the disaster are shared in the comments. There are also comments regarding the request for the document in question.

3 posts were sent on February 11, 2023. Three posts sent on the day in question were about evacuation plans. There is information about where and to which provinces the evacuations will take place. In these posts, requests for help for those trapped under the rubble are shared, as well as address and telephone information of people who will help with accommodation in other provinces. The 3 posts received a total of 10 comments, 45 reposts and 56 likes.

There are no posts on February 12, 2023. However, on February 13, 2023, the municipality sent 7 posts. An informative press release regarding the evacuations was made in the first post. This post has 4 comments, 15 reposts and 40 likes. Comments include criticism of the evictions. In another post, a live broadcast video featuring the mayor was sent. The total length of the video is 2 minutes 12 seconds. In this video, the mayor gave information about search and rescue efforts, criticisms about this issue and perceptions on social media. There were no comments on this post, 2 reposts and 8 likes. In another post on February 13, information about Ziraat Bank service points was provided. This post received 11 reposts and 26 likes. The municipality's 4th post included information and photographs regarding the services provided by the municipality in the fight against epidemics. This post received 2 comments, 12 reposts and 76 likes. One comment can be found on this post. The comment contains a criticism of the metropolitan mayor. 5. The post includes a 2 minute and 20 second live broadcast video of Kahramanmaraş

Metropolitan Municipality Mayor Hayrettin Güngör, which was broadcast on Habertürk television channel. In this video, he gave information about the size and size of the earthquake. The presenter asked the mayor how prepared the municipality was for the earthquake. The President stated that the earthquake was not expected to be this big and that his staff were also victims of the earthquake and that nearly 60 personnel were either buried under the rubble or died and that 10-15 people were not heard from. Challenges arising from energy, transportation and communication are revealed in this video. 4 comments were made to this post, and all comments included criticisms about the information in the video. The post received 3 reposts and 17 likes. 6. In the post, "Cleaning efforts are continuing in the city with 60 vehicles and 750 personnel to protect public health and ensure hygiene after the earthquake." The statement was included. This post received 20 comments, 515 reposts and 925 likes. When the comments were examined, congratulations, wishes for convenience and state-nation unity were generally mentioned. In the last post on February 13, a poster for accommodation in Ilıca hostels was shared. There are no comments on this X post, and it has 29 X reposts and 56 likes.

Table 1. *X message types of Kahramanmaraş Metropolitan Municipality between 06.02.2023-09.03.2023*

| Content Types	06.02.2023-13.02.2023	14.02.2023-21.02.2023	22.02.2023-01.03.2023	02.03.2023-09.03.2023
	N	N	N	N
Text	10	13	2	4
X post with Image	2	20	20	9
X post with Video	3	2	1	-
Total	15	35	23	13

15 X posts were shared by Kahramanmaraş Metropolitan Municipality between 06 February 2023 and 13 February 2023. When the content types are examined, the most common content is text type content. Most of the text type content consists of images in text form and these contents are considered as text content. In the second week after the earthquake, 35 posts were shared between 14.02.2023 and 21.02.2023. Among these posts, the most shared ones are image type posts. Image type posts are followed by text type posts. When the content types between 22.02.2023-01.03.2023 are examined, it is seen that the most content type is images. One of the most important reasons for this is sharing text in image-type content. Between these dates, 20 images, 2 texts and 1 video content were shared. A total of 13 contents were shared between 02.03.2023 and 09.03.2023, which was the last week in which content types were examined, and 9 of them were images and 4 of them were text. No video type content was shared between these dates.

Table 2. *Purposes of Kahramanmaraş Metropolitan Municipality*
X Post Content Between 06.02.2023-09.03.2023

Purposes of Content in Disaster Communication	06.02.2023-13.02.2023	14.02.2023-21.02.2023	22.02.2023-01.03.2023	02.03.2023-09.03.2023	
	N	N	N	N	Total
Housing Announcements	2	1			3
Evacuation Announcements	4	3	1		8
Food Announcements	1		1		2
Debris Removal Announcements		1		1	2
Sharing for Morale and Motivation Purposes	1	1	1	1	4
	1	-	-	-	1
Sharing against disinformation	2				2
Search and Rescue Activities Information	2	7	3	1	13
Other institution services	2	11	8	6	27
Municipal services after the earthquake		1			1
Shares of earthquake images		5	2	1	8
Institutional officials visiting the municipality and the earthquake zone		5	7	3	15
Total	15	35	23	13	86

When Table 2 is examined, 86 posts were shared during the four weeks after the earthquake. It seems that 15 posts were shared in the first week of the earthquake. Among these posts, the posts about evacuation take up the most space. In addition, posts containing shelter announcements, search and rescue information, other institutional services and post-earthquake municipal services were shared twice. Unlike other weeks, 1 post was made against disinformation in the first week. In the first week, there were no posts about debris removal, sharing of earthquake images, post-earthquake NGO and public visits, and municipality and institution officials visiting the earthquake area. A total of 35 posts were shared in the second week, covering 14.02.2023-21.02.2023. Among these posts, 11 of them occupy the most space and are related to municipal services after the earthquake. These contents are followed by 7 other institutional services. Other institutional services mostly consist of announcements regarding AFAD and the Presidency of Religious Affairs. Post-earthquake NGO and public visits can be partially combined with morale and motivational content. In this context, the number of posts made in the context of morale and motivation is 6. After the earthquake, many institutions and organizations visited the earthquake region and municipality. The number of these contents is 5. Evacuation announcements continue in the second week of the earthquake. However, there is only one shelter announcement and no food announcement. Another content in the second week is 1 debris removal announcement. In the second week of the earthquake, no posts were shared within the scope of search and rescue efforts and the fight against disinformation. 23 posts were shared in the third week, covering the period between 22.02.2023 and 01.03.2023. Among these posts, the largest share is made up of post-earthquake municipal services, with 8 posts. These posts are followed by 7 institution officials who visit the earthquake region and the municipality. Other institutional services consist of 3 contents and post-earthquake public visits consist of 2 contents. Contents for evacuation, food and morale motivation were shared one at a time. In the third week, no posts were shared for the purpose of debris removal announcement, shelter and combating disinformation.

13 posts were shared between 02.03.2023 and 09.03.2023, the fourth week after the earthquake. The post that takes up the most space among these posts is municipal services after the earthquake. 3 posts were made regarding the visits of other institution officials to the municipality and the earthquake zone. One piece of content was shared regarding debris removal announcements, sharing for morale and motivational purposes, sharing for morale and motivation purposes, other institutional services, and post-earthquake NGO and public visits. In the last week, there has been no content sharing regarding shelter, evacuation, food, and the fight against disinformation. 86 posts were shared on the Kahramanmaraş Metropolitan Municipality X account for four weeks after the earthquake. Most of these posts, 27 in total, consist of post-earthquake municipal services. This was followed by 15 by institution officials visiting the municipality and the earthquake zone, 13 by other institutional services, 8 by evacuation announcements and post-earthquake NGO and public visits, 4 by sharing for morale and motivation purposes, 3 by shelter announcements, 2 by food and debris announcements. It is followed by removal announcements, 1 post against disinformation and a post regarding earthquake images. When the post against disinformation was examined, it was stated that there was an unfounded news about a disaster victim certificate being requested during evacuation processes. The X post in question is below.
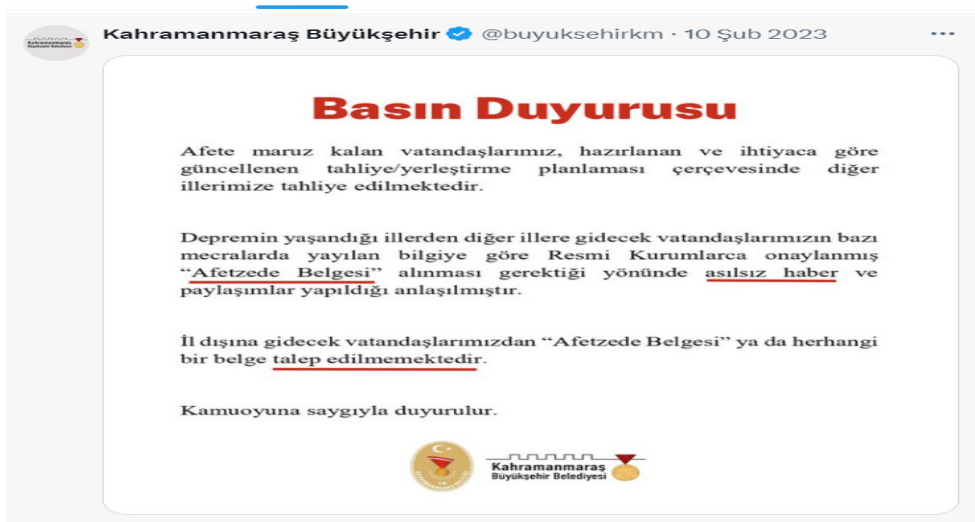
Figure 1. Kahramanmaraş Metropolitan Municipality's X post dated 10.02.2023.

Press Release

Our citizens who are exposed to disaster are evacuated to other provinces within the framework of the evacuation/settlement planning prepared and updated as needed.

It has been understood that unfounded news and posts have been made stating that our citizens who will go from the provinces where the earthquake occurred to other provinces must obtain a "Disaster Survivor Certificate" approved by Official Institutions, according to information published in some media.

A "Disaster Survivor Certificate" or any other document is not requested from our citizens who will travel outside the province.

It is announced to the public with respect.

Kahramanmaraş Municipality

Conclusion

Using the example of the 06 February 2023 Kahramanmaraş earthquake, this research emphasizes the critical role of local governments in the use of social media platforms in disaster communication and emergency response. Within the scope of the research, the posts made by Kahramanmaraş Metropolitan Municipality through X social media between 06 February 2023 and 09 March 2023 were examined in the context of disaster communication. Local governments have the opportunity to reach the public more than other institutions regarding disaster management. In this context, in the context of disaster communication, local governments should have disaster-related coordination and coordination duties on their social media accounts. In addition, social media accounts need to be used more effectively in order to prevent false news that may emerge after a disaster and to inform the public correctly. The study highlights the importance of timely and effective communication at all stages. Overall, the research contributes to the continued advancement of knowledge in the field of disaster management by highlighting the critical role of communication in disaster response and recovery efforts and the potential of social media platforms to facilitate effective communication.

The 06 February 2023 Kahramanmaraş earthquake revealed serious deficiencies in disaster management in the region, especially the role of local governments in disaster communication and social media. The earthquake caused structural damage and power outages, disrupting regional communications. The fact that internet-mediated services were not provided partially and regionally on the first day could not alleviate the grievances of healthcare workers and their families. Families of healthcare workers experienced losses and had difficulty reaching their relatives. The earthquake that occurred in Kahramanmaraş was predicted, but the local government's disaster preparedness measures were insufficient. It is imperative that local governments develop disaster management strategies, including communication and social media plans, to ensure better response times to natural disasters such as earthquakes. After the Kahramanmaraş earthquake, which was examined within the scope of the case study, Kahramanmaraş Metropolitan Municipality X account data was subjected to content analysis. As a result of the analysis, it is seen that the Municipality shared its first post two days after the earthquake. However, during the period examined, it is seen that the posts in the first week were mostly about disaster communication, but in the following weeks, they were about the services provided by the municipality after the disaster and visits to increase morale and motivation. As a result of the investigation, it was seen that people who could not reach their relatives after the disaster or who were under the rubble tried to reach the institutions through the municipality's social media account. In the comments made to some posts, it can be seen that there are informative comments about the wrecks in different provinces. In the light of the content analysis, the answers to the question of the purposes for which Kahramanmaraş Metropolitan Municipality used its X social media account during and after the earthquake were obtained and it was determined that there were inadequacies in terms of disaster communication. While the municipality mostly made information and evacuation announcements about the disaster in the first weeks of the disaster, in the following weeks, it shared posts about its own activities (visits and municipal services). Another research question is that the communication and coordination between Kahramanmaraş Metropolitan Municipality and other institutions and organizations is partially realized through X social media account. From time to time, the Municipality shared the announcements of other institutions on its own account. In this context, after the disaster, individuals comment on corporate accounts to make their

voices heard. As a result of the Kahramanmaraş earthquake and its aftermath, it was concluded that municipalities should use their social media accounts more actively and in line with disaster communication.

Yıldız and Demirhan (2016) examined the Facebook social media account through the example of the Van earthquake. It was concluded that the results of this research are similar to this research and that some organizations cannot use social media effectively in the context of emergency response and rescue. In the research conducted by Nelly and Collins (2018), it was stated that local governments should use social media more effectively. In addition, it was determined that there is a need for trained personnel in this field in order to ensure effective communication in case of a disaster.

To improve disaster communication, social media and local governments need to collaborate and develop effective strategies that leverage the strengths of both platforms. Best practices in disaster communication through social media include using hashtags, creating dedicated social media accounts for disaster communication, and using visuals to convey information. Successful examples of social media and local government collaboration include using social media to provide mass information and creating online communities to support disaster response efforts. Strategies to improve disaster communication through social media and local government collaboration include developing social media training programs for local government officials, establishing clear communication protocols, and using social media analytics to monitor the effectiveness of disaster communication efforts.

References

Ağca, M. E. (2023). Afet odaklı risk iletişiminde sosyal medya kullnımı: afad örneği. *Uluslararası Medya ve İletişim Araştırmaları Hakemli Dergisi, 6*(1), pp. 41-60.

Ahmed, A. (2011). *Use of Social Media in Disaster Management.* Retrieved from https://aisel.aisnet.org/icis2011/proceedings/generaltopics/16

Akdağ, S. E. (2002). Mali yapı ve denetim boyutlarıyla "afet yönetimi". *Sayıştay Dergisi*(44-45), pp. 35-65.

Başaran, İ., & Akyüz, D. (2022). Afet yönetiminde bir sivil toplum kuruluşu: türk kızılay. *Medeniyet Araştırmaları Dergisi, 7*(1), pp. 76-91.

Bilgili, A., & Sanatçı Aktaş, G. (2022). Afet yönetimindeki paradoks: 2020 Ege denizi depremi. *Doğal Afetler ve Çevre Dergisi, 8*(2).

Bor, O., & Avşar, Z. (2023). Afetzedeler ile yüzyüze iletişim. *İletişim ve Diplomasi*(10), pp. 23-46.

Bozkurt, Y., & Demir, T. (2023). Afet yönetiminde iletişim ve medya üzerine bir değerlendirme: Kahramanmaraş merkezli depremler. *umlupınar Üniversitesi İİBF Dergisi*(11), pp. 22-32.

Boztepe Taşkıran, H. (2023). Afet iletişimi nedir, ne değildir? *Yeni Medya*(14), pp. 359-363.

Çalışkan, M., & Mencik, Y. (n.d.). Değişen dünyanın yeni yüzü: sosyal medya. *Akademik Bakış Uluslararası Hakemli Sosyal Bilimler Dergisi*(50), pp. 254-277.

Çanakçi, M., Şaşmazlar, C., & Öztürk, S. (2022). Afet ve kriz yönetiminde sosyal medyanın

kullanımı üzerine bir araştırma: twitter örneği. *Gümüşhane Üniversitesi Sağlık Bilimleri Dergisi, 11*(3), pp. 882-897.

Demiröz, K. (2020). Afet kriz yönetiminde sosyal medyanın işlevselliği ve zararları üzerine bir inceleme. *Resilience, 4*(2), pp. 293-304.

Eldam Anar, Ü. (2021). Sosyal medya ortamında yer alan afet haberlerinde etkileşim; izmir depremi örneği. *Turkish Online Journal of Design Art and Communication, 11*(3), pp. 1129-1147.

Erkal, T., & Değerliyurt, M. (2009). Türkiye'de afet yönetimi. *Doğu Coğrafya Dergisi, 14*(22), pp. 147-164.

Gökçe, O., & Tetik, Ç. (2012). *Teoride ve pratikte afet sonrası iyileştirme çalışmaları.* Afet Ve Acil Durum Yönetimi Başkanlığı Yayınları.

IMO. (2024). *Afet yönetimi bilgi kitapçığ.* Retrieved from www.imo.org.tr: https://imop. imo.org.tr/resimler/dosya_ekler/76bb2697ef75e44_ek.pdf

Kahramanmaraş Metropolitan Municipality X Social Media Account. (2024). Retrieved from https://twitter.com/buyuksehirkm

Koçyiğit, A. (2023). Olağanüstü hallerde sosyal medyada dezenformasyonla mücadele ve kriz iletişimi: kahramanmaraş depremi üzerine bir analiz. *Kastamonu İletişim Araştırmaları Dergisi*(10), pp. 68-86.

Neely, S., & Collins, M. (2018). Social Media and Crisis Communications: A Survey of Local Governments in Florida. *Journal of Homeland Security and Emergency Management, 15*(1), pp. 1-13. https://doi.org/https://doi.org/10.1515/jhsem-2016-0067

Ortaç, G., & Yıltas-Kaplan, D. (2021). Afet yönetimi ve kablosuz iletişim sürekliliğine genel bakış. *Türk Doğa Ve Fen Dergisi, 10*(1), pp. 316-326.

Öztürk, M., & Demir, Y. (2023). Bilgilendirme ve kaos arasında: afet yönetiminde medyanın rolüne yönelik bibliyometrik bir analiz. *TRT Akademi, 8*(18), pp. 506-527.

Partigöç, N., & Tarhan, Ç. (2019). Dijital çağda afet yönetimi: dijital bölünme perspektifinden bir inceleme. *Resilience, 3*(2), pp. 301-306.

Şahin , Ş. (2019). Türkiye'de afet yönetimi ve 2023 hedefleri. *Türk Deprem Araştırma Dergisi, 1*(2), pp. 180-196.

Yazıcı, S., & Zincir , O. (2013). Kriz yönetimi ve afetlerde sosyal medya kullanımı. *İstanbul Üniversitesi Siyasal Bilgiler Fakültesi Dergisi*(49), pp. 65-82.

Yıldırım, A. (2023). Afetlerde dijital iletişim ve acil çağrı uygulamalarının kullanılabilirliği üzerine bir inceleme: AFAD Acil Çağrı. *TRT Akademi, 8*(18), pp. 552-573.

Yıldız, M., & Demirhan, K. (2016). Analysis and Comparison of the Role of Local Governments with Other Policy Actors in Disaster Relief via Social Media: The Case of Turkey. In U. Sadioglu, & K. Dede (Eds.), *Theoretical Foundations and Discussions on the Reformation Process in Local Governments* (pp. 462-483). IGI Global.

The Role of Local Governments in The Context of Disaster Communication and Social Media: The Example of 06 February 2023 Kahramanmaraş Earthquake

Aziz BELLİ (Assoc. Prof. Dr.)
Abdullah AYDIN (Assoc. Prof. Dr.)

Extended Abstract

On February 06, 2023, the city of Kahramanmaraş was hit by a devastating earthquake that left thousands dead, injured, and homeless. Following the disaster, local governments were given the responsibility to provide emergency response and disaster communications to the affected communities. However, traditional communication methods proved insufficient to meet the needs of the affected population. In this context, social media platforms emerged as an important tool for disaster communication. As a matter of fact, the use of social media for disaster communication has become increasingly widespread in recent years. Social media platforms such as Twitter, Facebook, and WhatsApp were used to disseminate information and updates during disasters. The effectiveness of social media in disaster communication has been widely recognized with studies showing that social media can provide real-time updates and facilitate communication between disaster responders and affected communities. Compared to traditional communication methods, social media has the advantage of reaching wider audiences and providing more accurate and up-to-date information. However, the use of social media for disaster communication also has limitations such as the spread of misinformation and the potential for social media to be overwhelmed by the volume of messages during a disaster.

Local governments have important roles in disaster communication. They are responsible for providing timely and accurate information to affected communities, coordinating relief efforts, and ensuring the safety of the population. However, local governments face several challenges in disaster communication, including a lack of resources, the complexity of coordinating multiple agencies, and the need to communicate with different communities. After the 06 February 2023 Kahramanmaraş earthquake, local governments were criticized for slow response and inadequate communication with the affected communities. This highlights the need for local governments to develop disaster communication strategies and work in collaboration with other institutions and community groups. In this context, the aim of this study is to reveal how local governments use social media communication tools in the disaster communication process. In order to achieve this aim, X social media accounts of Kahramanmaraş Metropolitan Municipality were analyzed by content analysis method between 06.02.2023 and 09.03.2023. The theoretical framework of the study consists of primary and secondary data obtained from domestic and foreign sources. The research generally consists of two parts. In the first part, information on the concepts that constitute the theoretical framework of the research is given. In the second part, X social media accounts of Kahramanmaraş Metropolitan Municipality are analyzed. The study is completed with the conclusion section.

Using the example of the 06 February 2023 Kahramanmaraş earthquake, this research emphasizes the critical role of local governments in disaster communication and the

use of social media platforms in responding to emergencies. Within the scope of the research, the posts made by Kahramanmaraş Metropolitan Municipality through X social media between February 06, 2023, and March 09, 2023, were examined in the context of disaster communication. Local governments have the opportunity to reach the public more than other institutions in disaster management. In this context, in the context of disaster communication, local governments should have duties to ensure coordination and coordination related to the disaster in their social media accounts. In addition, social media accounts should be used more effectively to prevent fake news that may emerge after the disaster and to inform the public correctly. The study emphasizes the importance of timely and effective communication at all stages. Overall, the research contributes to the ongoing advancement of knowledge in the field of disaster management by highlighting the critical role of communication in disaster response and recovery efforts and the potential of social media platforms to facilitate effective communication.

The 06 February 2023 Kahramanmaraş earthquake revealed serious deficiencies in disaster management in the region, especially the role of local governments in disaster communication and social media. The earthquake caused structural damage and power outages, disrupting regional communications. The fact that internet-mediated services were not provided partially and regionally on the first day could not alleviate the grievances of healthcare workers and their families. Families of healthcare workers experienced losses and had difficulty reaching their relatives. The earthquake that occurred in Kahramanmaraş was predicted, but the local government's disaster preparedness measures were insufficient. Local governments must develop disaster management strategies, including communication and social media plans, to ensure better response times to natural disasters such as earthquakes. After the Kahramanmaraş earthquake, which was examined within the scope of the case study, Kahramanmaraş Metropolitan Municipality X account data was subjected to content analysis. As a result of the analysis, it is seen that the Municipality shared its first post two days after the earthquake. However, during the period examined, it is seen that the posts in the first week were mostly about disaster communication, but in the following weeks, they were about the services provided by the municipality after the disaster and visits to increase morale and motivation. As a result of the investigation, it was seen that people who could not reach their relatives after the disaster or who were under the rubble tried to reach the institutions through the municipality's social media account. In the comments made to some posts, it can be seen that there are informative comments about the wrecks in different provinces. In this context, after the disaster, individuals comment on corporate accounts to make their voices heard. As a result of the Kahramanmaraş earthquake and its aftermath, it was concluded that municipalities should use their social media accounts more actively and in line with disaster communication.

To improve disaster communication, social media, and local governments need to collaborate and develop effective strategies that leverage the strengths of both platforms. Best practices in disaster communication through social media include using hashtags, creating dedicated social media accounts for disaster communication, and using visuals to convey information. Successful examples of social media and local government collaboration include using social media to provide mass information and creating online communities to support disaster response efforts. Strategies to improve disaster communication through social media and local government collaboration include developing social media training programs for local government officials, establishing

clear communication protocols, and using social media analytics to monitor the effectiveness of disaster communication efforts.

Keywords: Communication, Disaster Communication, Local Governments, Kahramanmaraş, Metropolitan Municipality.