

Chapter 47

ICT and Disaster Management: A Study of the Social Media Use in 2015 Chennai City Floods

Vikas
Jawaharlal Nehru University, India

ABSTRACT

ICT-mediated public administration is a governance motive in this digital age. Government of India has embarked upon Digital India and Smart Cities Mission to reform public service delivery and governance in the country. However, the recent Chennai floods and the serious inadequacy of official emergency response system calls in question the ability of government to deliver when it is most needed. Public participation is an avowed objective of all government programmes including the development of smart cities or a digitally empowered India. Chennai Floods and the ensuing people-led disaster response and recovery presents a case where voluntary efforts steered disaster management through use of social media as official mechanisms failed. Based on secondary sources, this paper discusses the social media use in Chennai floods disaster and deduces observations for effective social media integration and public participation in governance through proactive government-led intervention.

INTRODUCTION

For the last two days there has been a force in Chennai more powerful than the rains pounding the city: Social media. While bridges collapsed, floodgates opened and people were confined to their homes, citizens came together on social media – Twitter and Facebook – to coordinate efforts to send or seek help with accommodation, food and rescue relief. (Joseph & Sripathi, 2015)

The above testimony in India's most intellectual newspaper The Hindu vividly illustrates the role played by ICT-based social media in the 2015 Chennai floods. The Hindu was not alone in acknowledging this role; virtually every news outlet from the traditional print media to the multitude of online news sites went on to celebrate the social media intervention in Chennai floods as the government stood helpless. Social media- and ICT-mediated, peer-to-peer diffusion and crowdsourced disaster management were the hallmarks of Chennai floods.

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Information and Communication Technologies are changing the evolution and social landscape of urban and rural regions. Social media-led efforts at disaster management of Chennai floods indicate that cities are evolving using ICT-led communication mechanisms and using it for all practical purposes within the limitations posed by this new-age medium. Government of India (GOI) in its Smart Cities Mission (2015) declares, “In the approach of the Smart Cities Mission, the objective is to promote cities that provide core infrastructure and give a decent quality of life to its citizens, a clean and sustainable environment and application of ‘Smart’ Solutions.” GOI aims to transform the ecosystem of public service through use of IT and it has recently launched the Digital India Programme to ‘transform India into a digitally empowered society and knowledge economy’.

Emergency response and social media takes two strands of research. One is concerned with how disaster management agencies (including the government) use ICT and social media technologies in emergency situations. The other research focuses on how the ordinary public uses ICT and social media when hit by disasters for rescue, relief and coordination (Latonero & Shklovski, 2011). This paper discusses the use of social media by public when adequate government-led disaster management efforts were not forthcoming in the aftermath of Chennai floods.

Boyd and Ellison (2007) note that social media as web-based service provides for public interaction and allows people to connect with others who have similar needs, problems and interests (cited in Yates & Paquette, 2011). The use of social media in public mobilisation for disaster management or political protests is not a new phenomenon. There have been many instances in recent past where ICT-coordinated efforts gave fillip to mass action. Twitter and other mediums were used extensively during 2007 and 2008 Californian Wildfires, Republican and Democratic National Conventions, the disastrous Haiti Earthquake of 2010, 2008 Mumbai terrorist attacks, crash of US Airways flight 1549 in 2009, 2011 Tunisian uprising, 2007 Virginia Tech Shooting, 2010 Mount Merapi Eruption, 2011 Great East Japan Earthquake, 2011 Pakistan floods, 2013 Pakistan earthquake, disaster related Flickr activity after 2004 Indian Ocean earthquake and Tsunami, 2005 London bombings, or the Hurricane Katrina (Sutton, Palen, & Shklovski, 2008; Hughes and Palen, 2009; Yates & Paquette, 2011; Beaumont, 2008; Sutton et al. 2008; cited in Veil, Buehner, & Palenchar, 2011; Vieweg, Palen, Liu, Hughes, & Sutton, 2008; Nugroho, 2011; Ichiguchi, 2011; cited in Chatfield & Brajawidagda, 2013). Social media is emerging as a disaster management tool and is being used creatively and in many cases effectively as onsite and online activities get intertwined.

India is not alien to urban flooding; it is becoming a recurring feature in urban India. Instances of official acknowledgement of urban floods in India in recent times obtain in Hyderabad in 2000, Ahmedabad in 2001, Delhi in 2002, 2003, 2009 and 2010, Chennai in 2004, Mumbai in 2005, Surat in 2006, Kolkata in 2007, Jamshedpur in 2008, Guwahati in 2010 (NDMA, 2010, pp. xxiii-xxvi). Urban Flood Management Guidelines by National Disaster Management Authority (NDMA, 2010) published in 2010 notes that ‘urban flooding has been experienced over decades in India but sufficient attention was not given to plan specific efforts to deal with it’. Particularly after the Mumbai floods of 2005 which killed 5000 people, urban flooding is getting the attention it deserves. And yet in Chennai city floods, the disaster management mechanism was rendered helpless and the state and central government efforts were not enough; the gap was filled by voluntary social media efforts.

India’s cities and towns are vulnerable geographically on account of heavy rainfall in a small span of time. But there are several administrative reasons which narrate a story of mismanagement on the urban development front. Incessant encroachment of waterways, inadequate drainage infrastructure and poor maintenance are among the foremost reasons for urban floods. Government failure on the mitigation

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