CITIES, SOCIAL MEDIA, AND PREPAREDNESS FOR MAJOR THREATS



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NOVEMBER 15, 2018

I. INTRODUCTION

In this essay, Sunil Dubey notes that by 2030, over 65% of total world population will live in

cities. Cities confront the rising influence and penetration of social media platforms on all aspects of urban life. Although this virtual urban life makes cities smarter, more efficient, and more sustainable in many respects, it also subverts the safety, security and resilience of our cities. In light of recent incidents where social media played vital role, he lays out six principles for safer cities to become better prepared for threats propagated by social media.

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II. NAPSNET SPECIAL REPORT BY SUNIL DUBEY

CITIES, SOCIAL MEDIA, AND PREPAREDNESS FOR MAJOR THREATS

NOVEMBER 15 2018

*"But I don't want comfort. I want God, I want poetry, I want real danger, I want freedom, I want goodness. I want sin" cried John the Savage.**[1]***

1. Introduction

By 2030, over 65% of total world population will live in cities and urban regions. Cities are engines of global economic growth and prosperity with rising levels of social inequalities and environmental degradations. Cities are also the major targets of conventional and economic threats and wars. Cities are hub of intellectual resources and technological talent pools while attracting the most disruptive technological advancements for its security, safety and biological threats. Cities are the location where social media, including rumor, fake news, and false alarms—are experienced most directly. In some instances, social media propagation of false news drives extraordinary violence—including outright mob lynching to major changes in the seat of governments. Social media is also exploited by non-state actors like criminal and terrorist networks, as occurred in major terrorist attacks and threats. Cities, particularly developing cities, are ill prepared to address the rising impact of social media and on-line communication platforms on the safety, security and resilience preparedness during emergency situations, like natural disasters, wars and nuclear threats. This paper identifies four major themes related to cities and develops six theoretical principles where capacity building through applied and in-person training contributes towards cities

preparedness for major threats and occurrences, including nuclear and biological threats. It considers the persistence of rising threats in Indo-Pacific region and major challenges faced by developing cities in capacity building towards resilience and threat posed by conventional and non-conventional weapons by state and non-state actors. The paper focuses on capacity and limitations at local or city level governments.

2. Research Limitations on Cities, Social Media, and Major Threats

There is enormous amount of qualitative and quantitative data on governance, management and physical development of cities but limited research and data is available on cities, use of social media and major threats, nuclear, biological or similar occurrences. Cities are epicenter of economic activities and growth and remain the focal point of major manmade threats. The research limitations in this area are identified as major gap in this paper and the conceptual framework argues that major threats like nuclear and biological should be considered as integral part of resilient management of cities. Current research on city networking, leadership and resilience highlights two facts : i) cities are the economic engines of the global growth, but they have negligible or limited powers in addressing the challenges of the social media and on-line communications, and ii) city leaders like mayors , governors and commissioners understand daily management of cities, they seldom have access to training or technical resources on how to use or manage social media platforms in times of natural disasters or war-like situations and threats. Although they suffer and have to manage the consequences of disasters and those who exploit them on social media, they largely rely on external partners or service providers in such situations. Future research and empirical data collated through open data networks and validated through international and national intelligence communities can play a vital role towards appropriate preparedness of city governments in major threats and calamities.

3. Major themes of cities preparedness

Democracy — the bedrock of urbanization

The Freedom House noted in its recent report, Democracy in Crisis, that the basic tenets of democracy like rule of law, freedom of press, guarantees of free and fair elections and rights of minorities are declining and facing its most serious crisis.

Democracy in its different forms and systems has been the single largest factor in ensuring economic growth, elimination of poverty and relative levels of global peace since world war two. The freedom and choices offered through democracy allowed people towards economic opportunities and prosperity. In recent times it may not be portrayed by some authoritarian states as the best governing system in all domains, but human development evidences suggest democracy as the best governing system for our world especially to maintain a peaceful, prosperous and sustainable environment for future.[2] As the world population shifts from rural to urban, the principles of democracy become more relevant in important areas of health, education, environment and security. As Aldous Huxley noted in his book, Brave New World, “People are controlled with pleasure” and the central character, John the Savage, defines the pleasures through comfort and sin. We are witnessing today that democracy is going through paths of sins to attain prosperity and comfort.[3] And urbanization is playing a central role in the journey of democracy through rapid connectivity and technological advancements enabling people to share values and ideas in real time environment.

Connecting cities network through direct interventions

Rapid urbanization, rising social inequalities, economic uncertainties, shifting global security alliances and fast access to technological advancements are some of the key global challenges where cities are pushing to attain a global platform where urban voices can be heard without limitations of

international politics, national, regional and political interests. Majority of human population now lives in cities and urban regions.[4] Despite similar challenges and common areas for future collaborations in global cities, a common platform to voice the concerns of cities, including environment, safety and security, has been a difficult task. The United Nations (UN) portrays a joint working platform for cities and urban matters of global importance through human settlement program, UN-Habitat. Despite its achievements, UN Habitat is often riddled with member state conflicts, national politics, lack of funding and mandate to give more power and freedom to city leaders for implementation of urban programs. The independent panel in 2017 recognized some of the major causes in overcoming such challenges, most notably the role of security council members in accepting greater powers and funding to city level governments.[5] While UN is considering and recognizing the importance of cities in global affairs there are organizations, like Bloomberg foundation, leading joint programs and activities focusing on needs of cities and opportunities for cities to work together at national and international levels. One such success of the foundation was demonstrated during negotiations of Paris Agreement and bringing key city stakeholders and urban leaders to the negotiating table. While cities will play a major role in global affairs of the future, reliance to voice their concerns through UN dominated system may have limitations while independent foundation and network of like-minded cities and urban regions may have greater ability and joint resources to implement specific programs and objectives in cohesive manner. The governments may adopt such strategies to address major issues of environments and security threats by joining global foundations or direct platforms to strengthen their future preparedness for major threats and occurrences.

Innovation — bringing urban communities together

Innovation and technological advancements have bought global communities and cities together yet, they present one of the biggest challenges and threats for the sustainability and security of our modern world. Today we have more commonalities between New York, London, Singapore, Shanghai and Tokyo through their stock exchanges despite political and territorial disputes at international levels. These intangible commonalities are driven from technological advancements and economic dependability at global level. But these commonalities, if not cared and managed in collaborative way, can cause major catastrophes in financial markets and economic conditions. On one extreme we have effects of climate change becoming more evident through natural disasters and resource dilapidation while other extreme is dealing with conventional and non-conventional weapons including nuclear and biological threats from state and non-state actors. The economic, human and environmental impact of all these extremities are felt worldwide but the major consequences and losses are more evident in cities and urban regions.[6] While environment, climate and sustainable development topics have been at the forefront of global discussions, there is limited dialogue or consensus on city preparedness towards conventional and non-conventional threats including, nuclear, chemical, biological and environmental weapons. Majority of these threats are addressed and planned at the national, state or regional levels leaving city governments or urban administrations vulnerable or unprepared in time of real implementation to address such threats. Advancement in technology and communication allow cities to adopt new urban management platforms towards preparedness of major threats and occurrences.

Social Media — Wisdom of the crowd or hindrance for democracy

Nothing has influenced and effected democracy in recent times as much as rise of social media. From United States (US) to India, the democratic world has witnessed the blessings and the wrath of the social media like never before. It crosses all boundaries of legitimacies in democracy yet gives a platform to most vulnerable in societies to voice their concerns and opinion. It creates moral hazards for one community while opening channels of safety and reliance for others. From Twitter to

WhatsApp to Facebook, our world of democracy has been complimented yet strained at the same time. When society develops and adopts new methods of communication and organization, such as social media — public institutions has responsibility to react and adapt.[7] While some countries and cities have shown rapid adaptation of management platforms addressing social media opportunities and threats, large part of governments at all levels in the world don't have sufficient capacity, tools and management expertise to address the rising concerns of social media. The city governments, particularly in developing countries, are poorly resourced to implement even the simplest management platform to gauge the temperature of the local communities through social media networks and analytics platforms. While social media platforms are created as notion of active communication their wider use in urban societies are now the focus of big data and crowd sourcing for governments and large organizations. The governments use the crowd sourcing data under the pretext of safety and security while the large organizations are serving their market research needs and customized products for target markets. The processes and systems adopted in analysis of open source data from social media platform qualifies for a city management platform where predictive analytics can help governments and administration in preparing towards major threats and occurrences. Open source data and social media platforms, if used in appropriate ways with right skillsets and capacity, can become assets for city governments in resilience and threat management scenarios.

4. Examples of recent threats, incidences and role of social media

For the purpose of this paper four examples, from low threats to full blown attack, have been analyzed to understand the potential of major threats and vital role of social media and open data in management of such situations. These examples illustrate the importance of methodical collection of data, rigorous tests of local systems and external validations play important role in limiting the threats while appropriate training and capacity at senior leader and management levels are extremely important in eliminating the threats before occurrences.

Mumbai terror attacks (2008)

The Mumbai attacks of 2008 are often referred as "India's 9/11" where at least 172 people were killed by terrorists using conventional weapons. some aspects of this attack were significant, namely, its audacious and ambitious scope, the complexity of the operation, and the diversity of its targets. The prolonged nature of the episode, which went on for 60 hours with the steadily mounting death toll, made it a slow-motion shoot-out and siege that mesmerized the world's news media.[8]
According to the analysis of B. Raman, a former head of the Counterterrorism Division of the Research & Analysis Wing (R&AW) in India, the Mumbai terror attack was "the first mass casualty terrorism against innocent civilians, using hand-held weapons" enabling the terrorists to convey their political agenda through mainstream media for a prolonged period of 60 hours.[9]

Major observation:
Situational Awareness (SA) of the terrorists was complimented by live media and twitter feeds. Twitter site played a significant role in relaying situational information to the mainstream media, which was monitored by Mumbai terrorists and indirectly contributed to enhancing the SA level of Mumbai terrorists.[10]

Abbottabad (2011)

Abbottabad in Pakistan is synonymous with US raid to capture Osama Bin Laden. This major raid was conducted by Navy sea-air-land (SEAL) team. During the operations a local resident and service members were tweeting about the location of the operations and helicopters hovering in middle of the night.
Major observation:

Although inadvertently, this top-secret mission by US Special Forces was almost jeopardized by tweets from someone witnessing the operation and complimenting towards the Situational Awareness (SA) of the operations.[11]

Tottenham (2011)
A peaceful protest demanding justice for a man, Mark Duggan, shot by police was the catalyst for the violence that has spread across the country. The unprecedented speed and scale of riots were major concerns to the local and national authorities. Despite heavy presence of police, the rioting and disorder spread to other cities around London in matter of hours.
Major observation:
The authorities blame the new media technologies, that is, digital devices and social media platforms for the spread of rioting and unrests. User-generated contents and real time photos and video led to suggestions that social media incited the violence.[12]

Hawaii (2018)

At the height of Korean crisis a false alarm in Hawaii on January 13 2018 sparked wide-scale panic. It took authorities and Hawaii's Emergency Management Agency about 40minutes to correct it. A US federal investigation found the mix-up happened after a drill was conducted during a shift transition at the agency.[13]

Major observation:
Combination of human error and inadequate safeguards to control the propagation of media messages.[14]

Note: Lessons from Hawaii and Japan
Two threat related incidents took place during January 2018 where false alarms in Hawaii (US) and Japan caused major panic among the citizens. From resource capacity and advance training, Japanese local authorities showed advance level of preparedness of nuclear threats whereas little evidence of appropriate citizen safety preparedness was shown in case of Hawaii. It was later observed by media and researchers that Japan, at all levels of governments, began an education campaign on what to do in case of an incoming missile, and local authorities held emergency drills in areas on Japan's west coast.[15] These incidents in the most developed economies demonstrated two very important lessons for all cities in the world: a) Identification of major threats, including nuclear threats, must be validated and confirmed at different levels with minimum human interventions and b) Capacity and training to city governments and local administrations are vital in addressing the threats from conventional and non-conventional weapons including nuclear and biological weapons.

4. Six principles for safer cities — towards better preparedness

Cities confront the rising influence and penetration of social media platforms on all aspects of urban life. On-line, instantaneous communication platforms and mobile enabled messaging services challenge the governance of cities. Although this virtual urban life makes cities smarter, more efficient, and more sustainable in many respects, it also subverts the safety, security and resilience of our cities. Technology, by way of open data and social media, provides an opportunity to cities to work together in strengthening the local preparedness for major threats and occurrences. The eight principles for safer cities are driven from four themes of democracy, connecting cities, innovation and social media.

First principle — What you can't measure you can't manage
Live data is the most critical asset for all local and city governments. The reliance on data sets are

the most crucial part of resilience planning and preparedness towards major threats. Live data are often collected and collated through various silos of public and private systems. In formulating the data policies, the local governments must ensure the limits of legislative powers to collect and use the data at local levels. Quite often the critical and personal data policies are delegated at national governments and city governments must follow strict protocols to obtain such data. Locally tested methodology of collection, evidence, rectification, understanding and application must be in place for principle measure and management of data collection.[16]

Second principle — Knowing key sources of information
There is an abundance amount of data generated in real time. Most of the real time data is generated for personal use and personal communications. All open source social networking (Twitter) and closed system networks (mobile phones) generate vast data which will difficult to store, validate and use at city level governments. The second principle focuses on knowing the reliable sources of data, where the information is well tested through multiple channels of governments, research and intelligence communities. Source of data plays an important role in formulating future management strategies and collaborations with urban communities in time of threats.

Third Principle — Citizen journalists
Beyond the realms of sensors, systems and big data, human interventions are important to gauge the local realities and validate the social media data. With access to passive media, private bystanders can become active citizen journalists providing and relaying information from ground in time of major threats.[17]

Fourth principle — Protocols for social media interventions
One of the key challenges in age of fake news and failure of security apparatus in situations like mob lynching is to understand and accept the limitations of social media. These protocols have been one of the most challenging relationship arguments between governments and social media companies. The fourth principle of social media protocols require rigorous dialogue between companies and governments. There is trust deficit between the parties which plays an important role during the times of threat in cities around the world. In case of Tottenham, UK incidence there is critical argument about limitation of social media platforms and that the governments should work with companies to limit or restrict the use of social media platforms for limited periods.

Fifth principle — the spirit of collaboration with likeminded cities
One of the major advantages of working with democratic cities around the world is the notion of rule-based order and respect for freedom. The spirit of collaboration among democratic cities from all over the world will have commonalities of values and systems which allows them to work together in comprehensive way to understand the challenges of preparedness for major threats. These commonalities will have profound effects on future of cities preparedness towards major threats. Under the current geo-political and international order, the cities in Indo-Pacific region and European Union (EU) will face major test of spirit of collaboration and levels of retention in keeping such collaboration intact.

Sixth principle — Learning and exchange of knowledge through training
The learning and knowledge exchange have been one of the most influential factors of economic and political success of global cities. These exchanges and mutual learning create ‘clouds of trust’ among cities which sometimes enable them to work beyond the realms of national interests and political affiliations.[18] The clouds of trust among cities are developed through leadership, mutual interests and challenges and commitments to work jointly on long term strategic programs involving people’s exchange of ideas and urban practices. The city of Seoul has strong strategic alliance with Tokyo when planning and implementing processes and programs for dealing with nuclear threats on the Korean peninsula. The learning and knowledge generated through ‘cloud of trusts’ between Seoul

and Tokyo can be of immense value to other cities in the region.

Recommendation — Application of principles in strengthening cities preparedness

The six principles for safer cities conceptualize global collaboration and learning delivered at local levels through knowledge, exchange and strategic use of social media platforms. The developed world cities like London, Singapore, Tokyo, New York and Seoul have achieved advanced levels of preparedness to address the major threats and occurrences. In developing and implementing their threat management strategies, these cities have gained an enormous level of experiences and knowledge through working at all levels of governments. The silos in governments can be one of the major hurdles in management planning and policy reforms to address the preparedness and emergency situations for major threats. These cities have also worked with technology and social media companies in creating joint platforms to address the protocols and limitation of social media during time of emergencies. Furthermore, the advanced cities have also formulated a robust policy and governance framework to use the social media platforms to train their human resources and city leaderships to take appropriate actions during times of emergency needs.[19]
When such advancement of knowledge is available to address the city preparedness for major threats and occurrences, this paper recommends to use the principles of 'cloud of trusts' to develop a comprehensive on-site training programs for cities to learn and develop their local area plans and management strategy for robust preparedness towards major threats and occurrences including nuclear and biological threats. The social media platforms will play a vital role in the management strategies, but they also have huge economic gain through appropriate training to the city governments. This paper further suggests that city preparedness training and exchange programs can be funded through social media companies. Our research suggests that stable and well-functioning cities provide better opportunities for technology and social media companies to grow and expand their user bases. The funding in city preparedness training thus allows appropriate capacity and resources at city level governments and opportunities for social media contents to grow.

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III. ENDNOTES

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