Social media & uprisings: The case of the Egyptian revolution in 2011

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Abstract.
The present exploratory study adopts the case of the 2011 Egyptian Uprising, as it is particularly illustrative of the climacteric impact of technology on past social and societal conflicts. The latter will be achieved through a systematic review of literature which examines the different ways through which social media was used, as well as the impact it had on facilitating social change with regards to the Egyptian Revolution.
The research problem aims to examine the different ways through which social media was used during the Egyptian Uprising, as well as the impact it had on facilitating social change. It caters to a discovery-oriented decision problem and focuses on revealing how social media influences social change while shedding light particularly on the 2011 Egyptian Revolution and the implications social media carried towards it.
The conducted exploratory study adequately demonstrates that social media is found to have an undeniable influence on social change, especially as it has been adopted across various phases of the uprising, including its utilization for the initial formation of communities, as well as for promoting the collective movement.
Findings of this study will be of great value to future academic studies, as it serves to depict social media as a mechanism of information dissemination in the Arab and/or non-Arab world, whilst correlating to the varied utilities of social media during times of crises and the impact it had on facilitating social change.

Keywords: social media, social change, revolutions, online communities, Egyptian Revolution 2011, collective action.

1. Introduction

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The highly interactive platforms cultivated by the inception of Web 2.0, particularly the internet and social media, have revolutionized capabilities of communication and creation, particularly through enabling two-way communication and content generation [1]. Previously, published content and its impacts were solely decided upon by the media and the medium [2], whereas nowadays “user-generated content presented an opportunity for single Internet users to reach large audiences in the same way as content generated from the traditional mass-media” [1]. Correspondingly, the inception of a more interactive ‘Web 2.0’ and its facilities, including social media, serves as a pivotal tool which enables social and political change.

Social media has inevitably become a vital tool that plays an important role in our everyday existence. Nonetheless, the progression of social media not only drives our day-to-day social communication but has also been utilized as a catalyst for social change [3]. The year 2011 demonstrated an unprecedented rise in public distress driven by the demand for both political and legal change across Arab countries [4]. This involved the surge of demonstrations and protests across the Arab world since late 2010, ultimately giving rise to the notorious “Arab Spring 2011” [4]. One of the most prominent occurrences of the 2011 Arab Spring was the 2011 Egyptian Revolution, wherein social media and its affordances have had an indispensable role in the revolution’s success, especially as social media was distinguished as one of the tools that brought forth “such a huge impact on the revolution despite the government’s attempts to block and control it” [4]. The latter collectively substantiates the importance of analyzing the 2011 Egyptian Uprising, as it presents valuable insight into the use of social media and technology to empower social change and overcome social conflict.

Considering the previous, social media and its affordances have had an indispensable role in the success of the Egyptian Revolution in 2011, especially as social media was distinguished as one of the tools that brought forth “such a huge impact on the revolution despite the government’s attempts to block and control it” [4]. The wide use of social media has been deemed to make communication more rapid and efficient, therefore cultivating a widespread exposure of information among large populations which was not possible in the past [5]. Correspondingly, the progressive flow of information makes it difficult to silence people and control the growth of groups [5], thus contributing to the success of modern-era revolutions. In addition to the previous, social media technologies have also been contemplated as tools for spreading awareness, especially through facilitating “the rise of a new breed of citizen journalists with cell phone cameras who self-publish to websites such as Facebook, Twitter, YouTube and WordPress” [5,6,7].

In acknowledgement of the aforementioned, this paper aims to examine the different ways through which social media was used during the Egyptian Revolution, as well as the impact it had on facilitating social change. This paper begins by examining the use of social media to build and mobilize a community. It then assesses how social media was used to transform people from networked individualism to collected action, followed by investigating the influence of social media on social change. Subsequently, the paper will reattribute social media to the advancement of Web 2.0/Web 3.0/Web 4.0 and its importance [8], and will lastly assess the implications and use of social media in more recent contexts wherein it was used to promote social change.

2. The use of Social Media to build and mobilize a community

Social Media was recognized to have a fundamental impact on the overall success of the 2011 Egyptian Revolution, especially as it was used to facilitate “the staging of a successful first protest in a revolutionary cascade” [9] defined as ‘first mover mobilization’. Social media was credited to have a significant role in driving a “discrete mobilizational outcome during the Egyptian Revolution: first mover mobilization on January 25, 2011” [9]. To contextualize the previous, ‘first movers’ are defined as individuals who participate in the first protest of a revolutionary cascade, which includes groups/masses that combine both political activists and leaders, as well as regular citizens [9]. The prominence of first-mover mobilization in the case of Egypt’s revolution is undeniable, as it has been discerned to be a critical factor in triggering the 2011 uprising [9].

The wide range of affordances offered by social media is considered to have an integral role in communicating and structuring uprisings irrespectively. The availability of social networking sites (SNS), which are defined as online platforms that allow users to create a public profile and interact with other users [10]. Relatively, social networking sites were being used by activist groups to form and communicate potential communities across large spans [11]. This substantiates that web-based social media platforms possess great power as an organizational instrument, especially due to their facilitation of distribution and reachability [11]. The latter depicts social media and SNSs as a vital space for activists to create a community comprising a population who share common
motives/interests, by joining forces, and gaining the confidence required to collectively withstand the risks of regime suppression [11].

Correspondingly, Clarke & Koçak [9] observed social media to have a crucial role in the mobilization, particularly the platforms Facebook and Twitter. The aforementioned platforms were observed to help significant numbers of individuals who would otherwise be isolated to identify each other, form networks and relationships, and coordinate their actions, thus contributing to the successful January 25 protests [9]. In a more specific context, certain properties associated with Facebook including; likes, walls, and friends; allowed activists to identify and openly communicate with others, therefore aiding in the movement, recruitment, and protest planning and coordination [9]. Contrastingly, Twitter as a platform was an important source used to offer live updates regarding protest logistics on the day of the event, wherein specific features of the platform — such as “instantaneous updating, retweets, and hashtags — were conducive to the sending of real-time information from protests themselves” [9]. Furthermore, the critical role of social media, particularly the recently mentioned platforms, was agreed upon by many scholars as they have substantiated the significant role that social media played in the 2011 Egyptian Revolution [12, 13, 14, 15, 9].

The recent altogether depicts the vital role that social media, as well as particular platforms, played in building and mobilizing communities that were united with the intent to impose social change. Nevertheless, understanding how social media is generally utilized to impose social change holds great importance.

3. Social Media as a catalyst for Social Change

The role of social media as a tool to facilitate and impose social change is considered vital in the success of recent uprisings and societal changes, including the Arab Spring and the 2011 Egyptian Revolution. Social media was acclaimed as a tool utilized to create multimodal networking, which involved individuals who “consistently choose to occupy urban space, but in a way that is deeply connected to cyber-spatial networking” [14].

Social media also served numerous purposes in the revolution. This included the utilization of social media as a tool “to manage information, distribute functions, and enable users, or protesters, with online tools and information to organize protests and become activists” [13]. Furthermore, recent research supports that internet technologies allow protestors to coordinate by adopting a decentralized approach, wherein a central authority is not required [13]. The adoption of this form of organization is proposed to offer several advantages, which include the creation of “more flexible forms of collective action and it has radically changed the way in which grassroots politics operate” [13]. Although some scholars expressed doubts about whether social media critically played an important role in triggering the 2011 revolution in Egypt [16], the previously discussed findings depict the role that social media played in forming networks or communities, therefore acting as an enabler/facilitator to social change due to guiding, as well as enabling the rise and success of revolutions. However, to further exemplify the influence of social media on imposing social change, it is important to examine the ways through which social media was used to transform people from networked individualism to collected action.

4. The use of Social Media to transform people from Networked Individualism to Collective Action

One of the primal driving factors of the Egyptian Revolution was the use of social media to transform people from networked individualism to collective action. Collective action occurs when a specific party or group work together to achieve a set objective [17]. Furthermore, it represents the association of individuals towards a united action, often in the form of nations against an aggressor [18].

Social Networking Sites (SNS) have been widely acknowledged to function as a resource for “the mobilization organization and collective actions of socio-political groups” [11]. Putting the prior more clearly, Social Networking Sites (SNS) are defined as; “web-based service that allow[s] users to 1) construct a public or semipublic profile within a bounded system, 2) articulate a list of other users with whom they share a connection, and 3) view and traverse their list of connections and those made by others within the system” [19]. In verification of the aforesaid, Eltantawy & Weist [20] add that through the internet, social media as communication technology has become a resource for the mobilization of collective action, thus facilitating the creation, organization and implementation of the social movement worldwide. The development of social media also offers possibilities for driving Web-fueled social movements, hence transforming the landscape of collective action [20].

In addition to the previous, the utilization of social media as a tool for promoting social change is regarded to have several benefits. By providing a voice to the public, social media holds up wide-reaching effects that include; “making citizens better informed, turning them into activists, facilitating public organization and collective action,
and eventually helping the development of democratic institutions that could replace autocratic regimes” [21]. In turn, social media acts as an enabler for activists, as not only does it facilitate processes of planning, organizing, and debating, it presents activists with a new form of communicating and executing the revolution, thus serving as an important new resource for collective action [20].

In line with the previous, social media is deemed as a novel resource that provides a “swiftness in receiving and disseminating information; helped to build and strengthen ties among activists; and increased interaction among protesters and between protesters and the rest of the world” [20]. Moreover, social media technologies are deemed important, instrumental resources for collective action and social change, primarily due to their ubiquity, as well as their capability to communicate messages to massive, global audiences [20].

The recent altogether confirms how social media and its affordances are utilized as a tool to transform people from an individualistic state to collective action and participation. In further contribution to the thesis, it is important to reattribute social media to Web 2.0/Web 3.0, including how web technologies facilitate social media, thanks to giving rise to interactivity and two-way communication as well as facilitating the creation of online communities, ultimately substantiating how social media and technologies have become essential tools that are used to instigate social change.

5. The reattribution of Social Media to Web 2.0/3.0

Highlighting the role that Web 2.0/3.0 plays in cultivating social media provides critical insight that allows for a greater appreciation of its role and impact on social change.

To fully appreciate the role that social media plays in influencing social change, it is important to recognize the phenomenon of Web 2.0 and its connotation. Web 2.0 is recognized as “the second generation of the web, wherein interoperable, user-centred web applications and services promote social connectedness, media and information sharing, user-created content, and collaboration among individuals and organizations” [13].

The internet and Web 2.0 technologies are deemed as an outstanding complement for social protests, especially as it empowers citizens with a variety of tools that enables them to accomplish their main goal, which is to protest [13]. Respectively, these online tools transformed the street protest and the online protest, ultimately giving rise to what is known as ‘cyberactivism’ [13]. Furthermore, the commercial use of internet technologies and the uprise of web 2.0 tools are inferred to have cultivated a new culture of online protest. Additionally, with co-creation being the primal characteristic of social media, it is important to acknowledge that web 2.0 serves as a platform for this collaboration, which spans across all connected devices, thus encouraging the “creation, organization, linking, and sharing of content” [13].

Applying the latter in the context of the Egyptian Revolution, it is important to realize the role of web 2.0 in the revolution and its outcome. An example of these discourses is demonstrated by Wael Ghonim in his book called; Revolution 2.0 [22]. Ghonim was widely recognized as one of the organizers of the 2011 Egyptian Revolution, and a prominent figure with regard to the revolution. Ghonim contends that “this leaderless revolution was the Revolution 2.0, echoing the participatory and people-centric characteristics of Web 2.0 technologies” [22]. In his interview with CBS, he emphasizes that “if there was no social network, it (the 2011 Egypt Revolution) would have never been sparked. […] Without Facebook, without Twitter, without Google, without YouTube, this would never have happened” [22].

Collectively, the latter portrays how web 2.0 and its affordances act as a facilitator to social change by giving rise to social media and technologies, therefore further substantiating the role that social media plays in enabling, as well as influencing social change. Subsequently, assessing the implications and use of social media in more recent contexts wherein social media was used to promote social change would present additional insight into the use of social media to promote social change.

6. The power of social media in Web 3.0/Web 4.0 era

Social media are an integral part of the life of consumers in the Web 3.0 era. With the further evolvement of Web solutions and technological advancements, both penetration and the importance of social media become critically important for the success of any social or societal change. With the proven ability to create a behavioural impact [23], social media strategies became an integral part of the strategies [24]. The emergence of Web 3.0, which is also known as the Semantic Web, has eased, and facilitated the creation, finding, sharing, and combining the information by Internet users. Web 4.0 emerges as a new Web generation: it brings together all aspects of Web 2.0 and Web 3.0 and provides a myriad of new developmental opportunities [25, 8].

The new environment caused propulsive development and growth of new channels for social interaction in the digital space, revolutionizing and transforming the ways of interaction of human beings [26]. Further to this, Shu,
Sliva, Wang, Tang and Liu [27] argue that the media ecology has been changing from newprint to radio/television to include online news and social media nowadays. With the emerging penetration of Internet use, any individual, organization, or brand can become a potential target of organized action on social media.

In addition to the change in the paradigm of human interactions and organized actions, the way of spreading the news has also changed. Social media became a field for posting user-generated content that can be split over various channels, including not only user-to-user sharing, but also word of mouth, radio and TV reporting, e-word of mouth, dark social, social bots, and spillover online to offline, as well as offline to online [28]. The content shared on social media is not necessarily factually true: examples of the use of social media to spread fake news and deepfake video content are identified in the body of available literature [28]. This is logical, because, in the Internet era, the pace of dissemination of fake or false content became faster than ever before. The content on social media has the potential to spread and develop quickly, especially through sharing on social media on community platforms and user accounts and through e-word of mouth and dark social - link sharing that cannot be tracked by web analytics [29]. The velocity of the spread is getting even higher for fake and false contexts. The real news required six times as long as false content to reach 1500 people, and 20 times as long as falsehoods to reach a cascade depth of ten [28, 30]. The paradigm of communication has been changed in Web 3.0 / Web 4.0 era: user-generated content became a fully credible source. Holiday [31] argued that a story on a small blog with low reporting standards might become a credible source for a larger and more reputable blog, which subsequently may attract attention and get coverage by influential mainstream media. News outlets, in their continuous attempts to reach more readers and earn more clicks on their online portals, are now more likely to re-publish the stories from less reputable sources, irrespective if key journalism principles are fulfilled: republishing occurs even though the facts may not be complete and the nature and trustworthiness of the story may not be fully investigated [31, 32].

Since the Arab uprising, the social media has been used by activists, protesters, and revolutionaries across the world to rally global support to combat various injustices, or to promote their own goals, irrespective if they are legitimate or illegitimate. The COVID-19 pandemic and the increased use of social media as a critically important tool to stay connected in a socially distant world has given social media even greater power. At the same time, distancing and new habits developed during COVID-19 pandemic empowered social media with the additional potential to protect against polarization. That responsibility can slip through the cracks. Using social media during COVID-19 to mobilize people across the political spectrum to respond to perceived injustice is an interesting lens for understanding the roles and responsibilities of social media in the new post-COVID global setting [53].

7. Social Media as a double-edged sword

The discourse conducted till now article was focusing on the use of social media in facilitating social/societal change. One needs to understand that with the rise of social media, Internet communication became a double-edged sword [33, 34]. Parting from the perspective of one-way communication (Web 1.0) and becoming interactive (Web 2.0) it enabled two-way communication [8], often based on the reciprocity rule and enabled building a competitive advantage in the context of electronic communication with the use of social media [35]. With such potential to impact the audience and spread across the mainstream media scene, social media became a powerful weapon not only for info-wars [36], but also to promote the causes and consequently trigger social changes [37]. The previously-mentioned cases were highlighting only the users’ point of view. But as highlighted before, other stakeholders are taking part in the communication process (companies, governments) and can create a reactive approach, or even take a leading role in terms of relations with other stakeholders.

As an example of such behaviour, the India protests case study could have been considered. The 2020 Farmer’s Protests in India is a valuable example which illustrates how social media was used in Web 3.0 / Web 4.0 era to promote that specific cause, therefore inflicting social change. The declaration of Indian Farm Bills which were passed by the parliament in September 2020 allowed the entry of corporations into certain domains of crop trading [38]. As a result, protests were led by farmers as the new configurations of crops and purchase prices threatened their trades [38]. The Indian Government was found to disrupt the dissemination of information around the protest in several ways, which included shutting down mobile internet services at protest sites, as well as suspending Twitter accounts associated with the protest [39]. Additionally, the Indian Government was described as “committed in their efforts of constructing their preferred narrative about the farm bills and the protest” as they have aroused criminal charges against journalists that reported the protests [39]. To counter this, the farmers began utilizing social media as a tool to publicize their perspectives on the issue whilst aiming to share information that
better informs and educates people about their side of the argument, as well as potentially mobilize individuals for their cause [39].

This example is one in a multitude of situations where the government has applied social media as a tool for impacting an external power to control published content and channel the energy of users in the desired direction. Nowadays, social media platforms can be used to weaken or destabilize both authoritarian and strong liberal-democratic regimes. However, they are also used to intensify the power of strong authoritarian regimes by helping them, directly or indirectly, to become “digital dictatorships” [40], or have radicalizing effects in weak democratic regimes. In the process of triggering social and political changes, social media platforms are used by three groups of actors: domestic opposition, external forces, and the governing regime [16]. Stepanova [41] argues that during regimes. In the process of triggering social and political changes, social media platforms are used by three groups of actors: domestic opposition, external forces, and the governing regime [16]. Stepanova [41] argues that during the Arab spring, the internet penetration rate was higher in the countries that were experiencing unrest and social change, than in those that were not experiencing the same. Recently, numerous social movements amplified by social media emerged. Easy access to information provided by journalism and social media has made it possible to reduce the “information asymmetry” between those in power and those fighting for change. This is done by providing evidence to support and inform the purposes of both parties. This evidence can be shared with an international audience by eliciting support and comment in communities that are not bound by geographic boundaries. The visual culture of social media means that evidence of wrongdoing spreads quickly and widely, and those responsible are held accountable for their actions [53]. The developments in Moldova, Iran, and Tunisia, as well as the continuous use of social media to influence the public in the Russia-Ukraine conflict [16], illustrate the power of social media and the multitude of possibilities to trigger different types of changes.

However, with the power of social media to mobilize and polarize, the ethical concern in triggering the societal changes is possible abusive use of social media to promote hate speech or destabilize regimes for the sake of gaining power and not creating better or more democratic society. In the development of global understanding of this phenomenon, two scenarios which shall be considered are noticeable – one where despite the efforts put in, users will dictate the conditions, and the second, where governments/institutions play a leading role and control the situation completely. First – a prominent example can serve the Black Lives Matter (BLM) [42] or #MeeToo movement [43, 44], as the second - case of Golden Shield Project or so-called the Great Firewall of China [45, 46]. The possible directions of usage of social media for creating the societal change are illustrated in the Graph 1 below.

Graph 1: Possible ways of usage of social media for creation of the societal change (construct of the authors)

Due to their widespread social media presence, the BLM movement facilitated the organization of countless rallies and events involving vast participants primarily through social media [47]. The movement’s hashtag,
serve the Black Lives Matter (BLM) governments/institutions play a leading role an gaining power and not creating better or more democratic society. boundaries. international providing to social of actors: domestic opposition, external forces, and regimes. In the process of triggering social and political changes, social media platforms are used by three groups them, directly or indirectly, democratic regimes. However, they are also used to intensify the power of strong authoritarian regimes by helping better informs and educates people about their side of the argument, as well as potentially mobilize Due

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The growing concerns towards the normalization of misogyny and drawbacks towards women's equality spiked upon the electoral victory of ex-President Donald Trump over his opponent Hillary Clinton during the 2017 elections [50]. It was on January 2017 that people began standing up and expressing their angst and determination towards fighting for women’s rights and equality in the Women’s March, tallying up to more than 3 million people in over 400 cities and towns across the United States [50]. The #MeToo movement was founded by Tarana Burke, empowering women to amplify their voices and stand up against the election of a “self-admitted sexual predator” [50]. Through the empowerment provoked by the Women’s March, as well as the rise of public debate over Trump’s acclaimed sexual offences, several women, as well as female celebrities, were prompted to disclose accusations against other powerful male figures [50]. A key factor which was found to amplify the #MeToo movement was its extensive use of social media tools, involving supporters’ usage of “online platforms to share information, plan and organize protest actions, propagate political messages, and debate feminist ideas [50].

Where two previously mentioned social movements were originated and driven by the crowd, the Golden Shield project unfolds the other side of the coin. Originating from the decision of the Chinese Government named National Public Security Work Informational Project is the Chinese nationwide network-security fundamental constructional project by the e-government of the People's Republic of China [45]. However, under the cover of national security (administration system, information system, traffic management system and many others) indeed strong censorship of free speech is disguised [51]. Still, this case is extraordinary as due to the government decision there are no services like YouTube, Facebook, Twitter, and many more [43, 52] and they have been replaced with so-called super apps, having the capacity of merging and blurring the lines between reality and fiction! This solution, created to prevent misuse seems now to be applied as a monitoring tool and if needed be a tube for propaganda.

8. Conclusion: The implications of social media in recent contexts to promote social change

In conclusion, the paper comprehensively evaluates how social media influences social change while shedding light, particularly on the 2011 Egyptian Revolution and the implications social media carried towards it. This included an analysis of the following: how social media was in the development and mobilization of communities, the role of social media as a tool for social change, how social media transforms people from networked individualism to collected action, as well as the retribution of social media to web 2.0. Altogether, the presented arguments regarding the use of social media in the 2011 Egyptian Revolution ascertain how social media catalyzes social change across different phases including the initial formation of communities, as well as the promotion of a coordinated movement. Nevertheless, to further contribute towards identifying the role of social media in facilitating social change, it is critical to assess the use of social media in stimulating social change across more recent instances. Relatively, this would include the analysis of how social media was utilized in the case of more recent political activism regimes.
In adherence to the latter, it remains important to study the impact of more modern social media and communication technologies on social change, especially in more modern contexts. This could involve a study of how more modern social media technologies such as ‘geo-tracking’ or ‘geo-filters’ can be used as a means of allowing people to identify hotspots that further attract them towards gatherings/masses demanding social change.

Further to this, the findings of this paper might be used as a solid starting point for comparative studies about the use of social media to trigger changes and mobilize the communities in other countries affected by the unrest, social protests, or conflicts in the Web 3.0 / Web 4.0 era.
social protests, or conflicts in the Web 3.0 / Web 4.0 era. The use of social media to trigger changes and mobilize the communities in other countries affected by political unrest, can be used as a means of tracking' or 'geo-filters' can be used as a means of identifying hotspots that attract people towards gatherings/masses demanding social change.

Further to this, findings of this paper might be used as a solid starting point for comparative studies about...
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