“THESE DAYS WILL NEVER BE FORGOTTEN …” : A Critical Mass Approach to Online Activism

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Abstract

Social activists increasingly wield the power of the Internet technology to penetrate organizational boundaries and enable social and political change. Yet, research on activism beyond organizational boundaries and the role that new technology may play in it is scarce. This study explores this phenomenon by studying the dynamics of social activism through the Internet for expressing resistance to a powerful organizational regime. We first develop a critical mass approach to online activism to understand longitudinal data (2009-2013) collected from three YouTube-based cases and supplementary interviews. We then integrate the results of within-case and cross-case analyses in a process model that explains how online activism started, generated societal outcomes, and changed over time. The model suggests that online activism helped organize collective actions and amplify the conditions for revolutionary movements to form. Yet, it provoked elites’ reactions such as Internet filtering and surveillance, which do not only promote self-censorship and generate digital divide, but contribute to the ultimate decline of activism over time. We provide a theoretical path for studying the phenomenon of online activism and present opportunities for organizations and social activists to direct online activities’ focus from one being based on the creation of ‘knowers’ to one based on the empowerment of ‘learners’.

Keywords: process model, online activism, social activism, critical mass, organizing people, collective action, social movement, digital divide, information asymmetry, qualitative study, YouTube

1. Introduction

Information Technology (IT) is shown to be a powerful resource for organizational members (Da Cunha & Orlikowski, 2008; Prasad & Prasad, 2000) as well as key stakeholders such as labor unions

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and customers (Martini, Massa, & Testa, 2013; Shostak, 2002) to raise concerns and seek emancipation and autonomy from dominant elites. Increasingly, independent activists such as privacy advocates or external bodies such as environmental groups leverage technology to penetrate established organizational boundaries and promote, impede or influence social and political change (Prince, Barrett, & Oborn, 2014). As organizations become more open with regard to their established boundaries, they require a careful understanding of the nature of social activism beyond organizational boundaries and the role that IT may play in it. Such activism, however, refers to a new type of relationship between IT and organizations, which is not well-understood and theorized in the information systems (IS) literature. In fact, IS research has largely treated IT applications to be bounded within organizations and directly linked to managerial objectives, and has said little about new technologies that are used by external activists to transcend boundaries and alter organizational routines (Winter, Berente, Howison, & Butler, 2014).

A theory-driven explanation that sheds light on the complex dynamics of social activism beyond organizational boundaries and the driving role of IT has yet to receive significant attention. This study improves our understanding of such activism by studying (i) how social activists leveraged IT to share information and express resistance to a powerful organizational regime, (ii) how organizational elites responded to the consequences of such activism, and (iii) how these responses generated further societal outcomes. We apply the critical mass approach to collective action (Marwell & Oliver, 1993) to examine multiple sources of evidence and longitudinal data from a post-election crisis where the Internet was used for distributing information and generating societal outcomes. The research questions are (i) What were the social and political consequences of social activism relying on the Internet (referred to as ‘online activism’)?, (ii) How did organizational elites respond to online activism and its consequences?, and (iii) How did these responses generate further societal outcomes? We develop a process model that addresses these questions and explains how online activism and its role in organizing collective actions and forming new social movements progress over time. Accordingly, two key theoretical contributions are made. First, we apply the theoretical lens of the critical mass approach to collective action to the phenomenon of ‘online activism’, and
thus extend its theoretical relevance beyond prior studies of communication and technology adoption. We take a step forward in establishing a basis for its future application in studying social activism through the Internet technology. Second, the results are integrated in a process model that elucidates the progression of activism beyond organizational boundaries and challenges the optimistic and technological deterministic hype regarding the role of online activism in enabling grassroots social movements. Specifically, our model resonates to the ‘logic of opposition’ (Robey & Boudreau, 1999) and suggests that (ii) online activism generates two opposing forces of encouraging and inhibiting interventions, and (ii) the interplay between these forces determines the outcomes of such activism.

The remainder of the article is structured as follows. We begin by providing an overview of the online activism literature. We continue by discussing theoretical perspectives that explain political systems and their vulnerability to change. Critical mass approach to collective action is elaborated and applied to examine empirical data collected from YouTube-based channels and supplementary interviews. The findings are integrated in a theory-driven model that explains the dynamics of online activism. The study concludes by discussing theoretical contributions, outlining future research opportunities, and proposing changes that policymakers and online activists may undertake to better deal with the existing challenges.

2. Theoretical Background

2.1. Online Activism

As our understanding of the relationship between politics, power, and the use of IT in organizational settings gains more theoretical rigor, new avenues for studying this relationship emerge (Jasperson, et al., 2002). Research has recently begun to connect the field with social movements to explain how IT can be used for social activism (Castells, 2012; Steenkamp & Hyde-Clarke, 2012; Wills & Reeves, 2009). For example, Wills and Reeves (2009) discuss the role of mining data from social networking sites in supporting campaigning in Britain, Steenkamp and Hyde-Clarke (2012) explain how Facebook pages allow the South African public to voice their opinions and build communities of interests, and Castells (2012) demonstrates the organizing role of IT in forging a mediated emotional
response to political events and then accelerating the formation of social movements.

Research uses the term ‘online activism’ to refer to social activism relying on the Internet (McCaughey & Ayers, 2003). Over the last decade, online activism has become increasingly prevalent for sharing information and organizing people to express resistance to dominant organizational elites. Specifically, activism through the Internet can help organize people, initiate and mobilize crowds, and provide the possibility of organizing events with high levels of engagement, focus and network strength (Bennett & Segerberg, 2011; Carty, 2010; Ottaway & Hamzawy, 2011; Postmes & Brunsting, 2002). Several pieces of evidence (e.g., Zapatista Army of National Liberation, Serbian militia movements) suggest that online facilities can diminish geographic boundaries, shift the burden of mobilization from organizations to individuals, enable reach of a greater global audience, and contribute to the creation of networked diasporas (Hintz, 2012). Besides, online activism can establish collective identity, solidarity and feelings of groupness among activists through both cognitive and strategic processes (Brunsting & Postmes, 2002). Specifically, web-based activities may help reduce attention to differences that exist within the group (e.g., differences in education, social class, and ethnicity), reinforce collective identity, and minimize resource-based differences between online participants. The anonymity offered by computer-mediated communication provides the possibility of expressing views that might otherwise be punished or sanctioned (Postmes & Brunsting, 2002). As a result, online activism has the potential to enable collective action to form autonomously of dominant cultural codes and help alternative conceptions of social order emerge (Iacono & Kling, 2001). We use the term ‘collective action’ to refer to the intentional collective action of individuals that share a common group membership to benefit the group (Louis, 2009).

Despite such promising evidence and arguments, recent approaches to online activism tend to challenge and question the outlined optimistic hype (DiMaggio, Hargittai, Neuman, & Robinson, 2001; Lim, 2003; Morozov, 2009, 2011; Rahimi, 2003; Yang, 2009). For example, Morozov (2011) argues that while anonymity provided by online activism may increase participation in online activities, it may also spark false perceptions of the low cost and high gain. More specifically, the
same Internet used to spark dissent can be used to track down activists. As a result, solidarity built through online activism cannot compensate for the competitive disadvantage of embryonic social movements when organizations exhibit their capabilities for surveillance and control (Lichbach, 1994). Lim (2003) referring to the case of Indonesia, states, “No revolution can happen without involving society on a wider scale. Even efforts within cyberspaces are fruitless unless they can be extended into real social, political, and economic spaces” (p. 274). Similarly, DiMaggio et al. (2001) argue that the Internet’s impact on socio-political movements varies depending upon how economic factors, government regulation and users collectively shape the Internet as a socio-political technology. The role of the Internet is particularly limited when expression of opposition is controlled and even the same technology is leveraged to preserve elites’ power (e.g., digital surveillance) (e.g., (Ameripour, Nicholson, & Newman, 2010; Yang, 2009)). Therefore, studying online activism requires a careful and comprehensive investigation of how it influences and is influenced by contextual and environmental factors. Recognizing the nascent state of knowledge on this topic, we focus our research on addressing this issue by investigating the social and political consequences of online activism, the reaction of organizational elites to these consequences, and the further societal outcomes (research questions). To address these questions, we first explain how organizations may be challenged socially and politically and then introduce the critical mass approach to collective action (referred to as ‘critical mass theory’) as an appropriate lens for studying our phenomenon of interest.

2.2. Socio-Political Changes in Organizations

Organizations are variably open to challenge and socio-political change at different times (Clegg, 1989; McAdam, 1999). Specifically, two simultaneous and dialectically related situations present opportunities for changing organizations (Kurzman, 1996): (i) when organization has structural weakness (e.g., organizational capacities for maintaining monopoly control of the situation are eroded), and, (ii) when there is a legitimacy crisis (e.g., some collectively defined agency articulates a collective definition of the illegitimacy of the organization).

These two situations are often closely correlated (Bachrach & Baratz, 1970). For example, the
changing agency of Afro-Americans in the early 1960s was asserted by resistance in the form of civil disobedience, riot and urban conflagration (Bachrach & Baratz, 1970). Subsequent structural shifts in Federal policies saw the emergence of a political will seeking to incorporate the hitherto marginalized. Conversely in the late 1960s the actual diminution of opportunities was also reflected in pessimistic perceptions of diminishing opportunities (McAdam, 1999).

There are, however, cases in which such correlation does not hold true and two possible mistaken situations can occur: (i) people fail to perceive socio-political opportunities when they exist (organization has structural weakness), and (ii) people perceive socio-political opportunities where none exist (organization has no structural weakness) (Kurzman, 1996). The first mismatch is attributed to false consciousness that mask social and political opportunities (Anderson, 1976). The second mismatch is highlighted in critical mass theory (Kurzman, 1996; Marwell & Oliver, 1993), which argues that solidarity and unity among people can be more influential in forming collective actions than organizational capacities (Lichbach, 1994; Opp, 1988). In fact, feelings of solidarity may influence activists’ perceptions regarding socio-political opportunities and generate occasional yet widespread collective actions. Collective actions may gradually enhance perceived socio-political opportunities of both activists and non-activists who observe opposition movements and in turn lead to forming revolutionary movements. As an example, Kurzman (1996) explains such a mismatch where perceived opportunities were higher than existing opportunities, and this may have influenced the revolution of 1979 in Iran. In the following, critical mass theory and its relevance to this study is explained.

2.3. Critical Mass Theory

Critical mass theory (CMT) is about how enough people become organized (collective action) to contribute to collective good (public good) (Marwell & Oliver, 1993). The theory asserts that two independent variables impact probability, extent and outcome of collective actions. The first variable is production functions (marginal returns), which is about how the inputs of resource contributions generate outputs of a collective good. In fact, critical mass has the potential to pay start-up costs and
induce widespread collective actions when the production functions are accelerating. The second variable is *heterogeneity levels of population*. Few highly interested and resourceful people may contribute to the initial stages of low returns, create the conditions for widespread contributions, and help provide the good for everyone.

CMT is used as the theoretical foundation of studies in areas such as communication studies (Markus, 1987), adaptive learning models (Macy, 1990) and network analysis (Jones, Hutchinson, Van Dyke, Gates, & Companion, 2001). For example, communication scholars recognize that information is a public good and that different structures for sharing information may affect people’s willingness to share information (Oliver & Marwell, 2001). Markus (1987), as an example, provides a critical mass explanation for the diffusion of interactive media (e.g., telephones). She recognizes start-up and early adopters’ challenges in promoting interactive media and suggests that universal access can be increased by (i) reducing costs of adopting the media, (ii) increasing availability of resources and interest in the community, (iii) including high-interest and high-resource individuals among the early users of the medium, and (iv) interventions that increase the overall level of interest and resources within the community. Another example is the work of Monge et al. (1998) on using interorganizational information systems to help firms embrace connectivity and collectively contribute information to a common public good. Other examples target the communal contribution of information to organizational knowledge management systems (Cress & Martin, 2006; Von Krogh, 2002; Wasko, 2005), and the collective creation or adoption of organizational systems such as electronic calendaring (van den Hooff, 2004), consortium-based eBusiness standardization (Zhao, Xia, & Shaw, 2007), and open source software development (Scacchi, 2007).

This study builds on CMT to develop a critical mass approach that is suited to studying online activism. We then use this approach and its theoretical components to understand longitudinal evidence from the Iranian post-election crisis in 2009. We establish a process model that explains how online activism and its role in organizing collective actions and forming new social movements progress over time. The choice of the theory has two key reasons. *Conceptually*, the core idea that ‘collective actions’ (as the result of collective interests) contribute to ‘public good’ (Oliver &
Marwell, 2002) indicates that CMT is relevant to multiple settings in which collective interests exist (e.g., organizations, societies). For example, it is consistent with the phenomenon of online activism in which activists engage in online works and collectively contribute to a public good (e.g., socio-political changes). Contextually, while CMT has previously been employed in organizational studies (Monge, et al., 1998) and in explaining political activism (Kurzman, 1996), its application to the phenomenon of online activism extends the theoretical relevance beyond communication and technology adoption studies and allows us to facilitate its future application in studying activism through the Internet.

We summarize and integrate prior research on CMT (Kurzman, 1996; Marwell & Oliver, 1993) to develop key theoretical components that are necessary for understanding online activism. The result, as presented in Table 1, include six components: (i) collective action (Marwell & Oliver, 1993), (ii) characteristic of the activists (representing heterogeneity of resources and interests) (Markus, 1987), (iii) costs of collective actions (Marwell & Oliver, 1993), (iv) perceived political opportunities (representing production forms) (Kurzman, 1996), (v) interventions, and (vi) public good (Markus, 1987). Table 1 also outlines brief explanations of how each component may manifest particularly in online activism works.

<table>
<thead>
<tr>
<th>Table 1. Critical Mass Approach to Online Activism (Adapted from (Kurzman, 1996; Markus, 1987; Oliver, Marwell, &amp; Teixeira, 1985))</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Component</strong></td>
</tr>
<tr>
<td>Collective Action</td>
</tr>
<tr>
<td>Characteristics of Activists</td>
</tr>
<tr>
<td>Costs of Collective Action</td>
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<tr>
<td>Perceived Political Opportunities</td>
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<td>Interventions</td>
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3. Research Methodology

3.1. Background to the Case

The post-election crisis in 2009 offers a fundamental case of how online activism occurred in a society to express resistance to a powerful organizational regime and how it spread across the world with widespread protests to which different players responded. Following the election on June 12, 2009, protests disputing the election results occurred not only in major cities in Iran but also around the world (Cross, 2010; Sohrabi-Haghighat & Mansouri, 2010).

It was argued that the Internet technology played a major role in organizing these collective actions (Esfandiari, 2010a, 2010b; Grossman, 2009). Specifically, online activism facilitated information sharing and documentation of struggles and publicized post-election social events (Afshari & Underwood, 2009). According to several journalists, sharing the news and videos on BBC, YouTube and Facebook increased mobilization and the numbers of protesters (Esfandiari, 2010a; Proudfoot, 2009). Authorities recognized the enabling role of the Internet in shaping and fuelling the crisis and blocked several websites such as online social networks (Esfandiari, 2010b). Due to the early filtering of the Internet and social media, several journalists argue that the following protests were mostly spontaneous and mainly spread by traditional networks of telephony and instant messaging (Esfandiari, 2010b). More specifically, some commentators assert that online activism was not a significant factor in mobilizing protesters after the shutdown of social media (Esfandiari, 2010a; Mirsepassi, 2010). The contradictory views and conflicting evidence on the role of the Internet concur with our research interest in investigating the dynamic and longitudinal nature of online activism.

3.2. Research Approach

We study three complementary cases to add confidence and robustness to our research on online...
activity and its role in organizing collective actions and forming new social movements. These cases embody IT applications that were instrumental in organizing and shaping collective actions. More specifically, we study secondary data (texts, visuals, voices) collected from three YouTube-based channels as well as qualitative data collective from additional interviews. Guided by the processes described in case study research (Yin, 2009), we examine the data in light of CMT (Table 1) to verify presence of the basic components, but stay open to uncover new concepts and relationships that enrich our understanding (e.g., (Heumann, Wienerm, Remus, & Mähring, 2014)).

The online activism that we are interested in is represented in sharing high visibility videos on YouTube (and not only commenting and sharing views). This is because websites such as blogs and YouTube can be important platforms for expressing dissent and expanding the realm of public free speech (Tatarchevskiy, 2011; van Zoonen, Vis, & Mihelj, 2010; Yang, 2009). In addition, post-election crisis videos were considered as important elements of mobilizing people and provoking protests (Esfandiari, 2010a; Proudfoot, 2009).

3.3. Data Collection

Data was collected in two rounds: (i) June 2011 and (ii) December 2013.

In June 2011, three YouTube-based channels were selected. This choice was based on the number of times that they had been viewed (popularity criterion). We used the keyword ‘Iran June 2009’ and searched for videos with the highest views. Channels related to the initial fifteen videos were examined. Twelve channels were excluded based on the channel views and the number of their relevant videos (videos related to the post-election crisis). For example, although the channel ‘AliJahanii’ was viewed 993,564 times, it hosted only one relevant video. Therefore, it was excluded. The selected channels included: (i) IranUltimatum, (ii) Iranlover100, and (iii) GreenRevolutionIran.

The channels were observed over a two year period (June 2009- June 2011) during which the channels achieved their peak access. Daily communications and interactions on the channels were documented and analyzed. The following information was collected from each channel: (i) demographic information about the channels and their videos (e.g., total views, views per videos,
number of videos, upload dates, number of comments), (ii) the content of the uploaded videos (through in-depth observation and listening), and (iii), comments on the channels and their uploaded videos. In total, 315 videos (shared between June 15, 2009 and June 28, 2011) and 8344 comments were studied. IranUltimatum included 7 videos and 4554 comments, Iranlover100 included 105 videos and 3420 comments, and GreenRevolutionIran:203 videos and 370 comments. Supplementary interviews were conducted as a complementary source of data collection to corroborate, validate and complement the information collected from the channels. Seven people who had left comments on the channels were interviewed to allow comparison of direct opinion with the data gathered from the YouTube channels. The seven interviewees were distributed in Iran (3 interviewees, Iranian citizens), Netherlands (one interviewee, non-Iranian citizen), Australia (one interviewee, Iranian citizen), the United States (one interviewee, Iranian citizen), and Italy (one interviewee, non-Iranian citizen). The topic was sensitive, and thus interview questions were structured, sent via email technology provided in YouTube, and the researchers did not further interact with the interviewees.

**In December 2013,** few months after the end of the president’s second term (June 2013), additional insights were collected to explain how online activism progressed over time. Specifically, new videos and comments that were shared by and posted on the channels were studied. In total, up to the time of data collection, only 4 new videos and 1547 comments were shared (IranUltimatum: 0 video and 1392 comments, Iranlover100: 0 video and 98 comments, GreenRevolutionIran: 4 videos and 57 comments).

The results and insights from both rounds of data collection (June 2011, December 2013) were integrated in a process model that addresses our three research questions. Six people that were accessible and knowledgeable insiders to the events were recruited to evaluate the model. The interviewees had viewed some of the videos but they had not necessarily left a comment on the videos. They represented an educated and young sample that included four university students (postgraduate levels) and two lecturers with an average age of 33 years old. The language of the discussions was Farsi (language) and interviews occurred via Skype. They were asked to evaluate the validity, applicability and comprehensiveness of the findings and to provide feedback and
suggestions. The sessions resulted in adding insights and refining the model to increase clarity and improve understanding. Overall, the feedback was positive and the last sessions resulted in minor changes, indicating an appropriate level of redundancy (Lincoln, 1985).

3.4. Data Analysis

The longitudinal and secondary data collected from the YouTube channels were analyzed in two stages including (i) within-case analysis and (ii) cross-case analysis.

First, within-case analysis enabled us to generate a rich understanding of each case. Taking the six components of CMT into consideration (Table 1), the data collected from each channel together with the interview statements were formatted into a single document. The data was coded using data reduction and presentation techniques. For example, separate tables were created to assign different segments of the transcripts to the theoretical components. Three tables (Tables 3-5) were created to build a logical chain of evidence (Yin, 2009). A researcher native in Farsi independently coded 50 excerpts from the cases to examine reliability of the coding process. The inter-coder reliability coefficient was 0.75. Disagreements were resolved through discussion to minimize researcher’s biases. The flexible and iterative processes for qualitative data analysis allowed us to incorporate modifications dictated by the data. For example, new concept and relationships were added (e.g., new types of public good, opposing interventions forces).

Second, this study took an analytic induction approach (Patton, 1990) and searched for common patterns and unique features across cases. The chains of evidence (as developed in the within-case analyses) helped compare cases in pairs to identify similarities and differences between them. This generated a general explanation that can be applied to each individual case while simultaneously taking into account differences between the cases. The updated understanding was supplemented with the interview transcripts that were documented in June 2011. The findings were then integrated into a process model. The model’s validity, applicability and comprehensiveness was finally evaluated and enriched by conducting six 1-hour interview sessions.

4. Results
4.1. Overview of Channels

Table 2 demonstrates an overview of the three YouTube channels. As shown, the channels were created immediately after the election (June 2009), with the objective of being involved in online activism regarding the post-election events. As in June 2011, the channels have high numbers of subscribers (637, 382, and 628). Although at a much lower rate, the number of their subscribers has increased over time (except Iranlover100; the number of subscribers decreased from 382 to 326). The total views slightly increased over time. However, IranUltimatum’s views continued to increase considerably (from 1,901,360 to 2,957,316). Further analysis showed that this increase is attributed to only one popular video, ‘Bella Ciao, Iran’, which is discussed in the next section.

<table>
<thead>
<tr>
<th>Channel</th>
<th>Joined YouTube</th>
<th>First Upload</th>
<th>Subscribers</th>
<th>Total Views</th>
<th>Posted Comments</th>
<th>Uploaded Videos</th>
</tr>
</thead>
<tbody>
<tr>
<td>IranUltimatum</td>
<td>June 14, 2009</td>
<td>July 2, 2009</td>
<td>638</td>
<td>1,901,360</td>
<td>4554</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>898</td>
<td>2,957,316</td>
<td>5946</td>
<td></td>
</tr>
<tr>
<td>IranLover100</td>
<td>June 14, 2009</td>
<td>June 15, 2009</td>
<td>382</td>
<td>915,990</td>
<td>3420</td>
<td>105</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>326</td>
<td>964,689</td>
<td>3518</td>
<td></td>
</tr>
<tr>
<td>GreenRevolutionIran</td>
<td>June 19, 2009</td>
<td>Nov 11, 2009</td>
<td>628</td>
<td>1,176,481</td>
<td>370</td>
<td>203</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>846</td>
<td>1,581,885</td>
<td>427</td>
<td>207</td>
</tr>
</tbody>
</table>

- **IranUltimatum** uploaded videos of songs and photos and videos. It was a popular point for expressing emotional feeling toward the movement, where people could state their opinion and either supports or opposes the efforts.
- **Iranlover100** distributed the actual videos of protests right at the beginning of crisis, in addition to other news and music videos.
- **GreenRevolutionIran** uploaded videos for shaping opposition activities strategically. The videos are broad in content, featuring material such as interviews, revolutionary or Rap songs, occasional protests in different cities, and news.

The high numbers of views in Table 2 are not impressive when compared to the population of the country (more than 70,000,000). In addition, the total 3,993,831 views include different regions (insiders and outsiders) as well as multiple views, meaning that the same people might have seen a video multiple times. Furthermore, 50% of the videos were viewed less than 1000 times; 39% of the videos were viewed between 1,000 and 10,000 times, 8% of the videos were viewed between 10,000 and 40,000 times, 2% of the videos were viewed between 40,000 and 80,000 times, two videos were viewed more than 300,000 times, and only one was viewed more than 1,000,000 times (‘Bella ciao, Iran’). These figures question the popularity of online activism in the examined context, yet their consequences are not necessarily insignificant and should be examined. The next sections explain each channel in order to provide a detailed explanation for the dynamics of online activism.

4.2. Within-Case Analysis

Case 1: IranUltimatum (http://www.youtube.com/IranUltimatum)

IranUltimatum shared 4, 2 and 1 videos in 2009, 2010 and 2011 respectively. The channel had more than one million views. The shared videos are clips with a mixture of photos from the protests and revolutionary songs. Music is indeed emotionally appealing, can reinforce collective identity, and increase perceived political opportunities (Roscigno & Danaher, 2001). Overall, the shared videos foster a collective identity and a sense of solidarity, and this is reflected even in the title of the videos (e.g., translation: Gloomy spring, Swear by the name of our friends, The green path to hope).

The first uploaded video is ‘[Protests to Iran Elections] Swear by the name of freedom’ اسم به قسم آزادی. It was uploaded on July 2, 2009 in the midst of the widespread protests. The video is a combination of photos from the 1979 protests and the new protests in 2009 along with an old 1979 revolutionary song that repeats ‘Swear by the name of freedom that we will continue your path, Martyr’. By combining the new and old photos, the video attempts to increase people’s perceptions regarding the existence of political opportunities. For example, a visual comparison between photos shows that new protests are even denser than protests in 1979. The videos on this channel, and one in particular (‘Bella ciao, Iran’), have the highest view numbers among all the post-election-related YouTube videos. ‘Bella ciao, Iran’ is a 2.14 minutes video and a mixture of photos from the protests in 2009 and the soundtrack of an old Italian antifascist song. It was viewed 1,901,360 times in June 2011 and this number increased to 2,957,316 by December 2013. The number of the registered comments on the video increased from 4269 in June 2011 to 5619 in December 2013.

The analysis shows that IranUltimatum was a popular point for the expression of emotional feeling toward the movement: people stated their opinion and either supported or opposed oppositional efforts. Supportive viewers liked the videos in YouTube, made the videos a ‘favorite’, and/or embedded them in their blogs, twitter or Facebook profiles. These few but emotive videos were important symbols of the movement and also attracted international attention to the post-election events. The comment below shows an example of a video response: “From Italy – it's an honour to...”

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have the brave freedom-loving people of Iran adopt our song. Our hearts are with you’. Several discussions on similar issues related to other countries were initiated in response to the videos: “The Taliban suicide acts against civilians, against projects to rebuild the country. Justified by Islam???

[With an ironic tone] “. The Internet also allows expression of anger or opposing viewpoints. For example, ‘Bella ciao, Iran’ has 4,967/ 7,728 likes and 291/ 485 dislikes by June 2011/ December 2013. The comment below shows an opposing response: “The “youth movement” and the "green revolution" [opposition movement in Iran] are US intelligence manipulated movements just like the Orange revolution in Ukraine and the rose revolution in Georgia”.

This study examined data collected from the channel in light of the six components of Table 1 at two times (2011, 2013). This allowed understanding of how online activism and its role in shaping collective action and social movements progressed over time. Table 3 maps the theoretical components with our data. For example, the following quote was mapped with ‘interventions’ because it reflects smart ways of video recording to decrease costs of collective action: "I like how the camera doesn't show the faces, because they'd hunt down and slaughter these people. Great job”. The second row of Table 3 (collective action, second row) refers to intentional collective action of online activists (sharing videos) to benefit the community. For example, the channel shared 7 videos between June 2009- June 2011. The timeline of the protests shows daily protests from June 13, 2009 to June 30, 2009 with more in July and August 2009 (in some cases more than 700, 000 protesters), but declining afterwards (Wikipedia, 2011b). Regarding the third row (characteristics of activists, third row), a motivated activist with appropriate level of access to the Internet shared high-quality and influential videos such as ‘Bella Ciao, Iran’ during June 2009- June. However, noticeable activity reduction in the second period implies lack of motivation or fear of tracking. In the first time period (June 2009- June 2011), costs of participating in collective actions (costs of collective action, fourth row) such as protests seemed low (“well uhh i am really bored and need some action... Anyone feelin the same way”). However, activists became aware of the associated costs over time. For example, they started sharing information about the status of the young man who had made ‘Bella Ciao, Iran’ in 2009. Comments on the channel suggest that perceived political opportunities were high at the
beginning, but they decreased over time ("Who knows what the future holds? Things are different now") (perceived political opportunities, fifth row). At the beginning, activists were caring and conscious about how they record videos to decrease costs of activism (interventions, sixth row). Over time, in response to decreasing perceived political opportunities and activism in general, some others intervened to remind and revive the objectives and the memory of past events ("Let’s not forget, the green movement, the green wave (Shared on Google +)"). Initially, people saw the shared videos as important historical public goods. Over time, others warned online activists about the negative consequences of such activism (public good, seventh row).

<table>
<thead>
<tr>
<th>Theoretical Component</th>
<th>June 2009- June 2011</th>
<th>July 2011- Dec 2013</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collective Action</td>
<td>Lots of activities: Influential videos were shared. Several protests occurred and were reported.</td>
<td>Almost no activity: No new video was shared. There were no noticeable protests over the country related to the green movement.</td>
<td>Less collective action</td>
</tr>
<tr>
<td>Characteristics of Activists</td>
<td>High levels of interests and resources: High levels of access to resources such as the Internet, high levels of interest and motivation to make influential videos, share news, and participate in protests. (reflecting activists with high levels of interests and resources)</td>
<td>Low levels of interests and resources: The decreasing number of videos pointed to declining motivation and interests and possibly suppressing activists. (reflecting activists with low levels of interests and resources)</td>
<td>Lower levels of interests and resources</td>
</tr>
<tr>
<td>Costs of Collective Action</td>
<td>Low costs: &quot;uhh i am really bored and need some action... Anyone feelin the same way.&quot; (reflecting low costs)</td>
<td>High costs: 'Ehsan Fatahian, the 28 year old guy, who made the video [Bella Ciao], is executed on 11/11/2009.&quot; (reflecting high costs)</td>
<td>Higher costs of collective action</td>
</tr>
<tr>
<td>Perceived Political Opportunities</td>
<td>Lots of opportunities: &quot;No more theocracy for Iran. It will happen very soon. Only fools stick their heads in the sand and do not see it is happening.&quot; (reflecting lots of perceived opportunities)</td>
<td>Opaque opportunities: &quot;Who knows what the future holds? Things are different now.&quot; (reflecting unclear and opaque perceived opportunities)</td>
<td>Lower perceived political opportunities</td>
</tr>
<tr>
<td>Interventions</td>
<td>Smart ways of recording: &quot;I like how the camera doesn't show the faces, because they'd hunt down and slaughter these people. Great job&quot;. (reflecting activists interventions to lower costs of collective action)</td>
<td>Reminding movement: &quot;Let’s not forget, the green movement, the green wave (Shared on Google +)&quot; (reflecting activists interventions to remind the movement while costs of collective action are high)</td>
<td>Different types of interventions</td>
</tr>
<tr>
<td>Public Good</td>
<td>Documenting history: &quot;Thanks, these videos are evidences that must be recorded in Iran's history, again thanks for the important video&quot; (reflecting perceptions of people on public good in terms of documenting Iranian history)</td>
<td>Destructing country: &quot;Don’t follow the American way by promoting this. It’s a path to nowhere. Watch out, what is going on in Syria, Lebanon... First they destroy your faith, and then they destroy your bodies.&quot; (reflecting perceptions of people on public good in terms of the destructive impacts of collective action)</td>
<td>Different perceptions on public good</td>
</tr>
</tbody>
</table>

Case 2: Iranlover100 (http://www.youtube.com/iranlover100)
Iranlover100 provided 105 videos within a short period between June 15, 2009 and September 18, 2009. The channel occasionally shared relevant songs and music. However, its major output was videos of actual protests. Iranlover100 uploaded the first video on the day the channel was created (June 15, 2009), rather than with a lag (the other two channels uploaded their first video two weeks and five months after the election). The subject of the most viewed video, ‘Iran after election 2009’, was similar to many other videos on the channel. The video was simply promoted by websites such as ‘guardian.co.uk’, twitter, and the homepage of YouTube as well as international television channels. Iranlover100 also uploaded more meaningful and educational videos such as ‘Voices of Peace from Iranian’ or ‘Free Iran’ (accompanied by the well-known song of ‘Imagine’). Such videos were viewed less than 1,000 times. Most of the videos were shot from participation in protests and violent interactions.

The majority of the responses to the channel were discussions between people who had opposing viewpoints on the videos and the post-election events in general. In total, 3518 comments on the channel were studied. The comments below show two pairs of supporting and opposing comments: “Thank you for posting this video. These days will never be forgotten in Iranian history ever. And will prove to become a huge foot step towards democracy;” vs. ”Every Iranian who supports USA or lets USA support them are non-Iranian pigs without honour, not worthy to breath”.

Table 4 demonstrates mapping of a sample of the observed quotes to the theoretical components. The channel shared 105 videos between June 2009 and September 2009 and no other video until December 2013 (decreasing collective action). Sharing daily breathtaking videos during the first period draws attention to the work of a highly motivated and committed activist. However, no activity during the second time period highlights the possibility of being tracked (characteristics of the activists). The comments suggest that perceived political opportunities were high at the beginning, while they decreased over time (“Anyone got a recent update? Media barely bring this up nowadays. Are they going anywhere?!", some people unsubscribed). During the first time period, the costs of collective action seemed low or at least manageable. However, activists became aware of the costs over time (e.g., “what has happened to you iranlover100? Are you OK? Please post a comment here if
you are, it's been a year from your last visit! Hope you haven't been caught by them.”

<table>
<thead>
<tr>
<th>Theoretical Component</th>
<th>June 2009- June 2011</th>
<th>July 2011- Dec 2013</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Collective Action</strong></td>
<td>Lots of activities: Influential videos were shared. Several protests occurred and were reported.</td>
<td>Almost no activity: No new video was shared. There were no noticeable protests over the country related to the green movement.</td>
<td>Less collective action</td>
</tr>
<tr>
<td><strong>Characteristics of Activists</strong></td>
<td>High levels of interests and resources: High levels of access to resources such as the Internet, high levels of interest and motivation to make influential videos, share news, and participate in dangerous protests. (reflecting activists with high levels of interests and resources)</td>
<td>Low levels of interests and resources: The decreasing number of videos (no video since September 2009) pointed to declining motivation and interests and possibly suppressing activists. (reflecting activists with low levels of interests and resources)</td>
<td>Lower levels of interests and resources</td>
</tr>
<tr>
<td><strong>Costs of Collective Action</strong></td>
<td>Low costs: &quot;aaaam, how many of those enforcers were surrounded by those protesters?! Glad to see that they can fight for their freedom&quot; (reflecting low costs)</td>
<td>High costs: “What has happened to you iranlover100? Are you OK? Please post a comment here if you are, it's been a year from your last visit! Hope you haven't been caught by them.” (reflecting high costs)</td>
<td>Higher costs of collective action</td>
</tr>
<tr>
<td><strong>Perceived Political Opportunities</strong></td>
<td>Lots of opportunities: &quot;I know one day you will wake up in free Iran. This's my wish to all Iranian. It's possible&quot; (reflecting lots of perceived opportunities)</td>
<td>Opaque opportunities: &quot;Anyone got a recent update? Media barely bring this up nowadays. Are they going anywhere!!&quot; (reflecting unclear and opaque perceived opportunities)</td>
<td>Lower perceived political opportunities</td>
</tr>
<tr>
<td><strong>Interventions</strong></td>
<td>International support: &quot;The entire world supports you. Nowadays a lot of people aren’t religious anymore but even religious people are starting to hate this. All governments support Iranians.&quot; (reflecting international support interventions to lower costs of collective action)</td>
<td>Authorities’ response: 'If these idiots had been able to destroy Iran in 2009, today Iran was like Iraq, Afghanistan, Pakistan, and Libya ... Thank you Islamic Republic of Iran for shutting these green scums down.... We all love and support you. You are great and thank you for being our protectors. Signed People of Iran&quot; (reflecting authorities reaction to increase costs of collective action)</td>
<td>Different types of interventions</td>
</tr>
<tr>
<td><strong>Public Good</strong></td>
<td>Documenting history: &quot;Thank you for posting this video. These days will never be forgotten in Iranian history ever. And will prove to become a huge foot step towards democracy&quot; (reflecting perceptions of people on public good in terms of documenting Iranian history)</td>
<td>Seeds for future positive change: &quot;Keep up the good work so true change will happen…” (reflecting perceptions of people on public good in terms of a progression to positive changes)</td>
<td>Different perceptions on public good</td>
</tr>
</tbody>
</table>

The shared videos had a widespread reception and were shown by internationals televisions. As a result, several protests emerged amongst Iranians in the US, Canada, Australia and Asia (interventions) showing solidarity with the protestors (NYC, 2009; Sohrabi-Haghighat & Mansouri, 2010): “the only thing I could do was to take part in few protests with nearly 200 protesters in the city to show my solidarity, and stay connected with my people living in Iran, “said a Iranian living in Australia. At the beginning, political activism was encouraged by highlighting international support ("The entire world supports you..."). However, over time other commenters referred to authorities’

interventions in dealing with activism ("Thank you Islamic Republic of Iran for shutting these green scums down.") Initially people saw the shared videos as important historical public goods. Later, mix response was received: some warned activists regarding the dangers of online activism and some considered activism as a necessary condition of positive social changes.

**Case 3: GreenRevolutionIran (http://www.youtube.com/GreenRevolutionIran)**

GreenRevolutionIran shared 7, 142, 16 and 2 videos in 2009, 2010, 2011 and 2012. These videos are also embedded in a blog supported by BlogSpot (BlogSpot is now filtered in the country). The five months interval between the events and the first upload indicates the channel’s aim at documenting and integrating information about the opposition. The videos are not limited to protests, songs or news, but they cover a broad range of activism works such as interviews, speeches, news, revolutionary or Rap songs, and videos of occasional protests in different cities.

Similar to the other two channels, a limited percentage of the videos contributed to most of the views. One video (‘Protest (Tasooa) Tehran, Iran 26 Dec 2009 Part 1’) was viewed 30, 892 times and contributed to a sizable percentage of the views. The video shows a protest in Tehran that is similar to other protests. The channel began uploading videos from November 2009 that is a few months after the post-election events. This was a time when the crisis was at a much less serious juncture than previously and thus fewer responses occurred. For example, the channel attracted only 427 responses from YouTube users, which is not high compared to 5946 responses for IranUltimatum and 3518 responses for Iranlover100. A representative sample of supporting and opposing comment follows as: “Thanks, these videos are evidences that must be recorded in Iran's history; again thanks for the important video.” vs. “Don’t trust this video. These peoples are US, Israel and British servants who get money for demonstrating”.

Table 5 shows mapping of a sample of the comments with the theoretical components. In terms of collective actions, the channel shared 203 videos between June 2009- June 2011 and 4 more videos after that until December 2013 (collective action). Sharing structured videos during the first period highlights high levels of motivation and interest of activist(s). However, considerably less activity
during the second period suggests once again lack of motivation or fear of persecution (characteristics of activists). Similarly, the comments suggest that perceived political opportunities were high at the beginning but they decreased over time (“People only watch. Oh my god. How will they plan to make changes??”). At both time periods, the comments reflect interventions in suppressing the movement (“If there was no military, Neda(s) were alive today...”). These reflections are understandable considering that the channel started activism in November 2009 when people had come to an understanding of the costs involved (“When I die, you should bury me at the top of the mountain and put a flower on my grave.”). However, this was not the case in previous channels when the movement had just started and people were not much aware of the costs involved. Many opposing comments considered the public good of online activism to be dangerous for the society. Later, some believed that the movement has led to the emergence of new types of music and giving birth to new artists (“similar to renaissance the pressure of these fights has brought us new rap singers like YAS and Hich-Kast”) (public good).

<table>
<thead>
<tr>
<th>Theoretical Component</th>
<th>June 2009- June 2011</th>
<th>July 2011- Dec 2013</th>
<th>Trend</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Collective Action</strong></td>
<td>Lots of activities: Influential videos were shared. Several protests occurred and were reported.</td>
<td>Little activity: 4 new videos were shared. There were no noticeable protests over the country related to the green movement.</td>
<td>Less collective action</td>
</tr>
<tr>
<td><strong>Characteristics of Activists</strong></td>
<td>High levels of interests and resources: High levels of access to resources such as the Internet, high levels of interest and motivation to make influential videos, share news, and participate in dangerous protests. (reflecting activists with high levels of interests and resources)</td>
<td>Low levels of interests and resources: The decreasing number of videos (no vidoes since September 2009) pointed to declining motivation and interests and possibly suppressing activists. (reflecting activists with low levels of interests and resources)</td>
<td>Lower levels of interests and resources</td>
</tr>
<tr>
<td><strong>Costs of Collective Action</strong></td>
<td>Increasing costs: “Dear friend, I think you should change the name of your channel. The state is sensitive to the name of revolution.” (reflecting high costs)</td>
<td>High costs: “When I die, you should bury me at the top of the mountain and put a flower on my grave.” (reflecting high costs)</td>
<td>Higher costs of collective action</td>
</tr>
<tr>
<td><strong>Perceived Political Opportunities</strong></td>
<td>Lots of opportunities: “Victory beckons Iranian people...It will happen ONE DAY!” (reflecting lots of perceived opportunities)</td>
<td>Opaque opportunities: “People only watch. Oh my god. How will they plan to make changes??” (reflecting unclear and opaque perceived opportunities)</td>
<td>Lower perceived political opportunities</td>
</tr>
<tr>
<td><strong>Interventions</strong></td>
<td>Authorities response: “If there was no military, Neda(s) were alive today...” (reflecting authorities reaction to increase costs of collective action)</td>
<td>Authorities response: “Thanks to our government that has suppressed all of you. Otherwise we were like Bahrain and so on. You [activists] can’t do anything.” (reflecting authorities reaction to increase costs of collective action)</td>
<td>Authoritie's interventions</td>
</tr>
</tbody>
</table>

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4.3. Cross-Case Analysis

The within-case analyses of the three channels show how online activism initially helped organize collective action (participation in protests), enhanced perceived political opportunities, and produced public goods or even perceptions on public goods (e.g., documenting history, new art). These consequences triggered opposing forces of inhibiting and encouraging interventions from different parties (dominant elites, international communities and activists). The interventions together changed the course of online activism and its role in organizing collective action and forming social movements. Figure 1 integrates the findings with supplementary interviews and demonstrates how online activism produced the two opposing forces of inhibiting and encouraging interventions, and how these interventions influenced the progression of online activism, ultimately contributing to the decline of activism. The model has three key elements, including (i) T1-Initial Conditions, (ii) Interventions (Encouraging and Inhibiting Interventions), and (iii) T2- Subsequent Conditions. Each element is elaborated in below.
**T1- Initial Conditions**

The early activism and protests were recorded by highly motivated and committed activists and broadcasted on YouTube and shared on Facebook and Twitter and international televisions (Esfandiari, 2010a) (*characteristics of the activists*). Several sources highlighted that broadcast of the videos contributed to the momentum of subsequent protests (*collective action: online and offline activism*) (Cross, 2010; Esfandiari, 2010a; Sohrabi-Haghighat & Mansouri, 2010), “I still remember...”

the protest that took place on June 13, a day after the vote. When video of the protest was posted on YouTube and shared on Facebook, the number of protesters grew," claimed a popular blogger (Esfandiari, 2010a). An interviewee argued that the videos of the protests in Tehran were influential in creating protests in other cities: “The videos of protests and violence were breathtaking. The protests looked like a revolution, something that we have experienced 30 years ago; we had to support the injured brothers and sisters, and protest over the election results.” Solidarity and the widespread protests increased perceived political opportunities (perceived political opportunities, e.g., changes in the selection results). The sparked beliefs regarding the low costs of collective action (costs of collective action) were reflected in the growing number of protests (Sohrabi-Haghighat & Mansouri, 2010; Wikipedia, 2011a). Documenting events related to the opposition movement as well as planting seeds for future social changes were seen as the public good of online activism (public good).

Interventions (Encouraging and Inhibiting Interventions)

Although online activism played an initial role in organizing collective actions and forming a new social movement, different parties responded to these consequences. For example, online activists tried to minimize activism costs by protecting anonymity in the videos (e.g., not showing faces). Furthermore, outside observers put diplomatic pressure on Tehran to reconsider the election results and help end the protests (Black & Pearlman, 2009). Globally, many profile settings changed to the Tehran time zone and many people made green Facebook and Twitter profile photos and avatars to express solidarity with the opposition movement.

Apart from such encouraging interventions, dominant elites and authorities responded to the consequences of activism such as protests and international pressure. They intensified Internet filtering, blocked access to several websites, decreased the speed of the Internet connection, and tracked users looking for the latest political news and information. The organizational authorities claimed to have successfully blocked access to over five million websites such as popular social networking (Twitter, YouTube and Facebook) and sites related to music, arts, news, politics and
women’s issues (Shirazi, 2010): “I do my best to bypass filtering; however, filtering has been very tough,” said an interviewee. Filtering the Internet grew exponentially, which means filtering a site resulted in filtering all sites linking to it and all links to the links (Ameripour, et al., 2010). In response to such inhibiting interventions, new international attempts were made to decrease difficulties in the access to and use of the technology. For example, Google added the Persian Translation to its translation tools (https://translate.google.com) (Baker, 2009), or, Internet proxies were set up for local residents to bypass filtering. However, proxies did not seem to be of much help. In fact, the technology for bypassing censorship was not well known among major segments of the society. An interviewee claiming to be located in the Netherlands said: “I set up proxies to help Iranian people bypass the filtering. I posted my bridge address to anonygreen.wordpress.com. But I had clients from funny places such as Africa, but very few from Iran.” In addition, systems of surveillance and censorship are updated frequently and proxies may not work. The exhaustive ‘cat and mouse’ game between the activists and the state made many proxy users feel anxious and withdraw from their prior social and/or political activities (Ameripour, et al., 2010). This issue is also reflected in the fact that majority of the comments on the YouTube channels were from outside observers including non-Iranians or expats that attempt to connect to homeland (Azadarmaki & Bahar, 2007). As a result of access difficulties, many citizens did not see the situation to be as critical as people overseas did. For example, Iranian citizens were observing local protests without having access to social media. However, outsiders did see a bigger picture of the protests around the country. A blogger whose website is blocked stated: “I left America few weeks before the election and came back almost a month after that. It is unbelievable that until I used Facebook after my arrival to US, I didn’t know what exactly has happened there. These days I am reading and watching videos from the profiles of my friends to catch up with the events.”

An interviewee who claimed to be located in Tehran, a software engineer, and familiar with the technology of proxies argued that: “It [filtering] is not even about social and political activities, as I’m not really a political person. Many helpful websites such as YouTube through which I can watch technical videos are filtered. I use proxies, but they don’t work all the time. Plus, the Internet speed is
often very low, even at my workplace. I often prefer not to bother … We can’t leverage the Internet’s potential for many learning purposes.” Access difficulties were challenging even in December 2013 when the political situation was orderly: “You may know that [foreign minister] is using Facebook regularly to give report of his weekly or even daily works to Iranian people. He even apologies if he gets busy one week and does not provide updates. Although Facebook is still filtered and considered to be threatening, it is finding its legitimacy through the action of government officials. However, many useful websites remain filtered”. This was an unintended lasting public good because irrespective of participation in online activism the access was filtered. Digital divide refers to inequalities in the access to and use of new technologies (Katz, Rice, & Aspden, 2001; Katz & Rice, 2002). Two types of digital divide emerged. First, dropping the use of the Internet as a useful tool made people with limited access to the technology fall on an uninformed side of digital divide (Katz, et al., 2001; Katz & Rice, 2002). Second, different access and use patterns created social segments with different views on the role and importance of online activism (those with better access had a more positive view on online activism). Accordingly, online activities became the voice of a selected group of people who had access to better Internet connection and had a better usage of anti-filtering systems. Censorship was self-induced as well. In fact, increased levels of filtering and regulatory attentions generated an atmosphere of promoting self-censorship and discouraging dissenting views: “I did blogging for more than five years. I used to write about my life experiences and viewpoints. But there is nothing to say in this situation … so I prefer to be silent. I am not sure for how long my silence will last,” said a blogger.

All together, the encouraging and inhibiting interventions (e.g., protecting anonymity vs. Internet filtering) influenced simultaneously the progression of online activism and its role in organizing collective actions and forming new social movements. This resulted in another set of conditions (T2), as described below.

**T2- Subsequent Conditions**
Although the encouraging interventions (e.g., international support, setting up Internet proxies) supported activism and the emerged so-called Green movement, the inhibiting interventions were dominant (e.g., Internet filtering, surveillance). This contributed to the ultimate decline of activism as well as to the expansion of digital divide. More specifically, motivation and resources of activists decreased over time (characteristics of online activists changed; less motivated and resourceful), people had more awareness regarding the true costs of participating in collective action (costs of collective action increased), and therefore people perceived less or more realistic political opportunities (perceived political opportunities decreased). Not surprisingly, both online and offline activism decreased over time (collective action decreased). For example, only four new videos were shared in the second time period. Although the new videos were helpful in documenting the events, many started to criticize outcomes of the opposition movement. Besides, new forms of art such as rap singers and songs emerged (public good changed).

5. Discussion

5.1. Theoretical Implications

This study engaged in a discussion around the importance of research on online activism beyond organizational boundaries. It reports one of the first attempts in providing a theoretical and longitudinal picture of the dynamics of activism through the Internet. CMT (Marwell & Oliver, 1993) is extended to the phenomenon of online activism to analyze data from a post-election crisis. A process model is developed to explain how organizational elites responded to the social and political consequences of online activism and how these responses influenced the progression of activism over time (addressing the research questions). Two key theoretical contributions are offered, as described below.

First, this study integrates prior research on CMT and applies this theoretical foundation to the phenomenon of online activism. It thus extends its theoretical relevance beyond prior studies of communication and technology adoption. The critical mass approach to collective action (Table 1) helps establish a basis for future works on studying online activism within or beyond organizational
boundaries. Our results suggest that the core theoretical components of this approach are helpful in explaining online activism. Yet, we enrich our understanding by developing new concepts and relationships. For example, the findings elucidate how organizational elites promoted information asymmetries to shape material agency toward their goals (Martini, et al., 2013) and how this caused unintended public goods of digital divide and self-censorship. In addition, two opposing types of interventions and the interaction between them were revealed. This finding resonates with the ‘logic of opposition’ where organizational consequences of IT are created by contradictory forces that both promote and oppose social change (Robey & Boudreau, 1999).

Second, a process approach was used to identify patterns of change from one period of time to another (e.g., (Lapointe & Rivard, 2005; Wanda J. Orlikowski, 1996)). The results were integrated in a longitudinal model that explains the dynamics of online activism. The model generalizes from theory (CMT) and empirical description (YouTube channels and interviews) to theory (a process model of critical mass approach to online activism ) (Lee & Baskerville, 2003). Addressing the first research question (What were the social and political consequences of online activism), the model acknowledges that online activism initially played a powerful role in shaping collective actions. Although, the shared videos had limited popularity (compared to the overall population; Table 2), the consequences were not insignificant. This finding concurs with CMT that emphasizes ‘how enough people become organized to contribute to some collective good is more important than reaching a threshold point for unanimous participation’. We addressed the second research question (How did organizational elites respond to online activism and its consequences?) by showing how authorities intervened and responded to online activism (inhibiting interventions). We revealed the two opposing forces of encouraging and inhibiting interventions and their operation over time, and thus provide empirical support for the recent scholarly concern that challenges the optimistic hype regarding the role of online activism in facilitating social improvements (Morozov, 2011). In addressing the third research question (How did these responses generate further societal outcomes?), this study explained how the opposing interventions generated further outcomes and influenced simultaneously the progression of activism and its dynamics. More specifically, inhibiting interventions such as Internet
filtering and surveillance were dominant and contributed to the ultimate decline of activism as well as to the expansion of lasting outcomes such as digital divide. These results add to the literature on IT and power (Jasperson, et al., 2002) by showing that online activism provided a temporary shock to the system as well as contributed to unintended public goods such as digital divide. We concur with the view that the impact of technology is not given only in its inherent potential (e.g., increasing perceived political opportunities) but in strategic choices that are shaped by social, economic and cultural factors (e.g., governing access to the Internet) (DiMaggio, et al., 2001; Wanda. J. Orlikowski & Lacono, 2000).

5.2. Practical Implications

The opposition movement that emerged in our case is seen in some quarters as a ‘new social movement’ formed with the addition of digital technology (Rahimi, 2011). Below, the research is extended to include prescription for practice and offer implications for both organizations and organizers of online activism.

Implications for Organizations. The examined post-election crisis demonstrates an extreme case (Yin, 2009) where a powerful organization controlled and suppressed activism. Although typical organizations and corporates rarely resort to military actions against activists, the findings bear relevance to contemporary organizations due to the careful use of CMT that helped us understand how activism arises and changes over time. Specifically, the developed process model has four key implications, including: (i) even limited practice of online activism may spark false perceptions regarding the costs of activism and thus play a powerful role in shaping wide-spread collective actions, (ii) it is natural for different parties with different interests to intervene and either encourage or inhibit such activism, (iii) the balance of interventions determine the outcomes of online activism, and (iv) interventions may result in unintended outcomes (e.g., digital divide).

Furthermore, the results have implications for organizations that define and promote information asymmetries. In the case of post-election crisis, dominant elites created information asymmetries to preserve their power. Although modern organizations are not comparable to repressive regimes in
terms of using information asymmetries to suppress individuals, organizations can set up or use structures that promote information asymmetry for the same purpose of preserving power. For example, senior managers may use information provided by secretive companies to check the status of their employees (e.g., blacklist of workers perceived as trouble-makers), monitor email correspondence of staff, and set up structures and hierarchies for accessing to organizational information (Lightfood & Wisniewski, 2014). As a result, while the Internet technology can be an influential resource for marginalized employees, customers or competitors to speak out against an organization (Champoux, Durgee, & McGlynn, 2012), counter actions involving surveillance and filtering can still dampen activism. While the rationale is often linked to protecting security and managing workload, research alerts that information asymmetry can erode trust, limit the ability of organizational members to fully grasp organizational activities, and lead to ineffective communication and duplication of work (Lightfood & Wisniewski, 2014).

In summary, our process model suggests a complex interplay among stakeholders interests, opportunities for activism, costs and outcomes that are neither foreseen nor entirely predictable. This finding challenges universal access to the Internet as a convenient and cost-free forum for practicing social activism by organizational stakeholders (customers, employees, outside parties). In fact, the technology enablers of social activism also enable its filtering and repression and thus more extreme states of information asymmetry may result in which powerful elites preserve their status and impose a greater digital divide. Although this outcome occurred in our study, we do not speculate that all social activism would be thwarted or activists punished. Especially in conventional organizational contexts, it is conceivable that responses to activism lean more towards understanding, learning and negotiation rather than reprisal and oppression. By engaging with activists and their concerns, and by providing rational explanations for actions that they dispute, organizations may be able to resolve differences constructively.

**Implications for Organizers of Online Activism.** Online anonymity is perceived as a strategy that reduces the costs of joining social movements. However, activists should pay attention to the deceptive role of the Internet in sparking false perceptions regarding the costs and benefits of joining
online activities and collective actions. For example, the same Internet can be used to track down activists, irrespective of their anonymity. When Internet activities are observed and tracked, filtering and surveillance to prevent information sharing is tightened further. Accordingly, creation of a censored digital divide questions the role that online activists have in the future of societies. Such recursivity of online activism is not limited to contexts such as the Iranian, Arab, and Chinese organizations. The cases of WikiLeaks as well as the London riots of August 2011 also mirror similar responses where protesters were tracked through their use of social media and even communicating about the riots on social media (Hintz, 2012). In summary, organizers and members of online communities that actively share and discuss information should be aware of the reactions of organizational elites and the long-term costs of organizing and participating in collective actions.

In addition, although the inhibiting interventions were dominant in our case, balance of forces in other cases may work in a way that encouraging interventions be dominant, resulting in revolutionary movements to form (e.g., (Kurzman, 1996)). Online activists should understand that the dynamics of reaching critical mass (e.g., how protests are shaped and expanded) and their further substantial consequences might not necessarily be the result of critical thinking, lifelong learning, or other dimensions of civic engagement: a critical mass without much in the way of deep reflexivity. For example, the videos we have researched were essentially reactive and emotive. Digital tools can be used simply to inform but if civic engagement is to occur they must also be used to organize, educate and agitate. As a result, online activists should understand that ‘going viral’ and ‘building a virtues-based community that coalesces around an alternative vision and value proposition for social organization’ are very different phenomena. Therefore, online activists may re-think the types of information that are most appropriate to be shared. Many activists have made significant efforts to share information regarding political events. Such an approach, based on the creation of ‘knowers’, should be revised in order to foster the empowerment of ‘learners’ that are capable of generating new knowledge to respond to changing socio-cultural environments (Laszlo & Laszlo, 2002).

6. Concluding Points
This study was designed with appreciating the need to carefully examine the dynamics of using the Internet by social activists for sharing information and expressing resistance to organizations. In light of existing theory and informed by longitudinal data (2009-2013) collected from three YouTube-bases and supplementary interviews, this study took key theoretical steps in improving our understanding of the relation between social activism, IT, and organization, and offered practical recommendations for both organizations and organizers of online activities. This work suggests a fruitful theoretical path for studying the phenomenon of ‘online activism’ and presents a longitudinal explanation of how online activism arises and changes over time. We advance theory in online activism by showing how two opposing forces of encouraging and inhibiting interventions are created and how the interplay between these forces creates unexpected societal outcomes.

Although the post-election crisis of 2009 provided access to an empirical phenomenon uncommon to regular research scrutiny, future research may focus on examining the process model in different organizational settings and across national boundaries. In addition, while the inhibiting forces were dominant in this case, longitudinal research is required to study cases in which encouraging forces become dominant and whether they can lead to long-lasting outcomes. Finally, different types of social activism may lead to different response patterns. Researchers may work on improving our understanding of different types of social activism and developing comparative models that explain similarities and differences across different forms of activism.

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Ghobadi, S., & Clegg, S. 2014, ‘these days will never be forgotten’: Critical Mass Approach to Online Activism, Information and Organization, Vol 25 Issue 1, pp 52–71


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Appendix

Questions: What do you think about post-election crisis?, What is your opinion about the YouTube videos regarding the post-election events?, Do you think they were effective? If yes, how?, What do you think about the feature of the movement?, How do you see the role of the Internet, and the YouTube?, Is there anything else you would like to say about online activism, in general and post-election crisis in particular?

Ghobadi, S., Clegg, S. 2014, ‘these days will never be forgotten’: Critical Mass Approach to Online Activism, Information and Organization, Vol 25 Issue 1, pp 52–71