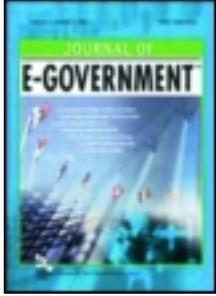


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### Online Media and Offline Empowerment in Post-Rebellion Tunisia: An Analysis of Internet Use during Democratic Transition

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# Online Media and Offline Empowerment in Post-Rebellion Tunisia: An Analysis of Internet Use during Democratic Transition

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**Abstract:** Social media are reputed to have played a crucial role in mobilizing citizens against autocratic governments in the MENA region. In Tunisia, digital activists successfully used social media to organize the popular protests that ousted President Ben Ali in January 2011. However, the phase of mobilizing protest to overthrow an established authority is different from constructing a political order to replace that authority. Hence the question arises in what ways social media can contribute to democratic transitions beyond popular rebellion? This paper

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focuses on the attitudinal factors that lie at the heart of cultural-behavioral approaches to democratization. A key element in the democratic consolidation of post-autocratic societies is the development of a participatory political culture which, among other factors, depends on citizens' perceived political efficacy. Using data obtained from a web-survey among 610 Tunisian Internet users, we test the degree to which respondents' political use of the Internet during the Tunisian uprising influenced their levels of internal political efficacy and whether this shift in attitudes is positively related to measurable changes in electoral participation from authoritarian to post-authoritarian rule.

**Keywords:** Internet Use, Protest Mobilization, Political Empowerment, Democratic Transition, Tunisia, Arab Spring

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The prominent role attributed to digital communication technologies and social media in mobilizing citizens against autocratic governments in the Arab Spring uprisings that shook the Middle East / North Africa (MENA) region in 2010 / 2011 has reinvigorated the debate about the viability of information and communication technologies (ICTs) as tools for the promotion of democracy (Marzouki et al., 2012, Dubai School of Government, 2011, Howard and Hussain, 2011, Howard and Hussain, 2012, Pollock, 2011, Lotan et al., 2011, Roberts et al., 2011, Eltantawy and Wiest, 2011). In Tunisia, Egypt, and to a lesser degree, Libya, social media were crucial elements in framing and coordinating the protest movements that eventually toppled the regimes of Ben Ali, Mubarak, and Gaddafi. However, the phase of mobilizing protest to overthrow an established authority is quite separate from constructing a political order to replace that authority. Hence the question of in which ways can ICTs contribute to democratic transitions beyond popular rebellion now often arises.

Ever since the Internet became available to the general public in the early 1990s, the international donor community has sought to employ it in pursuit of strategic development goals. Early efforts concentrated on investment in technologies to increase penetration rates and improve Internet access for marginalized communities in the context of human development strategies. However, starting with the noticeable shift towards user-generated forms of content creation and user / consumer production often characterized as ‘Web 2.0’ in the mid-2000s, many donors started to integrate ICTs into their human rights and democracy promotion programs.<sup>1</sup>

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<sup>1</sup> Over recent years the general trend in international development cooperation has been away from dedicated ICT units and towards mainstreaming: Since 2006 UK’s DFID, Switzerland’s

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More contemporarily, American, European and multinational donor agencies spend considerable amounts of money on ambitious media and ICT support projects as part of the larger objective to promote democracy worldwide. In 2008, US Official Development Assistance (ODA) for Communications Policy, Telecommunications, Media, and ICT amounted to \$124 million (Myers, 2009). Under the Obama administration, spending on ‘Internet Freedom’ projects around the world has been considerably elevated in foreign relations and development budget allocations. Funds appropriated for such projects in 2010 represented a 600 percent increase from 2009 (Stepanova, 2011). The European Commission as a multilateral donor comes in second after the United States with an estimated commitment about \$82 million worth of media-related ODA projects in 2008 (Myers, 2009). While it is impossible to put an exact figure on the share of these budgets that is specifically destined to the use of ICT in democracy promotion, the growing number of government and donor agency sponsored initiatives, publications, workshops, and lectures related to this topic indicates its increasing strategic relevance (for some of the most recent examples, see Böhnke, 2012; USAID, 2012; FoME, 2012; Clinton, 2010; Kroes, 2011; SIDA, 2009). Strategic ICT interventions in the context of democracy assistance are commonly based on a rationale of democratic participation. One example of this paradigm follows here:

*“ICT4Democracy in East Africa is premised on the recognition that Information and Communication Technology (ICT) has the potential to increase citizens’ participation in decision making processes, thus strengthening democratization.”* (Mission statement of

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SDC, and Canada’s IDRC all phased out their dedicated ICT4D divisions in favor of integration of ICT into other programmes (Heeks, 2010; Myers, 2009)

ICT4Democracy in East Africa, Network sponsored by the *Swedish Program for ICT in Developing Regions*, SPIDER)

It is fairly clear, then, that the Western donor community is permeated by a strong belief that the ongoing diffusion of the Internet and increasing rates of access to IT services will help advance the cause of national-level democratic growth. However, as can be seen from the following section, the empirical foundations of this belief are somewhat less firm.

## **The impact of ICT diffusion and use on democratic growth and citizen participation**

Beginning with the creation, public availability, and ensuing rapid expansion of the Internet and Internet users, scholars have taken great interest in the question of whether or not it would act as a driving force in the worldwide diffusion and consolidation of democracy. Yet, to date, only few studies have actually approached this question with cross-national, quantitative data-based analysis and the results are not overwhelmingly encouraging.

By means of various statistical studies of a data set containing records from 188 nations between 1992 and 2002, Best and Wade (2009) find that although Internet penetration accounts for more variation in levels of democratic development within countries than literacy rates, overall the Internet was not able to explain significant variation in democracy scores during that period. They suggest that while Internet enabled increases in government transparency, and NGO efficacy was responsible for much of the Internet's statistical success in countries that were at least partially developed and democratic, in less developed and non-democratic countries such

positive effects may be hampered by governments purposefully limiting public access to the Internet, state and self-censorship, and poor ICT infrastructure.

Using panel data from 152 countries between 1994 and 2003, Groshek (2009) arrived at a similar conclusion. According to his findings, any effects continuing Internet diffusion may have on democracy are likely to eventually plateau. Furthermore, he too found Internet diffusion to be associated with those countries becoming more democratic that had already reached a minimum level of democracy, while the democratizing effect of the Internet was severely limited among non-democratic countries. A criticism leveled against both these studies is that they operate with datasets that predate important ICT innovations and embeddedness, such as Web 2.0 features and social media platforms. This critique is especially germane given that major social media platforms, such as YouTube, Facebook, and Twitter, were only launched in the mid-2000s (Meier, 2011), but are nowadays frequently used for political and civic activism.

Likewise, Howard and Hussain (2011), who uses more recent data (1994 – 2008) confined to countries with large Muslim populations, arrive at the more optimistic conclusion that “*significant demonstration effects of the use of ICTs in democratization are evident*” (p. 198) but admonish that ICT should be thought of as originating incremental democratic change in the multiple facets of political life rather than revolutionary leaps in democratic growth. Shirky (2011) synthesized this body of research and suggested that while neither positive nor negative short term effects of ICT diffusion on democracy have been observed so far, ICT may rather produce positive effects in the long term, particularly in those states where government action is already subject to a certain degree of public scrutiny.

Similarly, at the individual level, studies concerning the impact of digital media use on political participation have produced somewhat sobering results. A meta-analysis of 38 studies spanning the period from 1995 – 2005 by Boulianne (2009) confirmed a positive but very modest impact of Internet use on civic engagement. Furthermore, these small positive effects appear to be positively moderated by factors that have long been established as standard predictors of political participation such as social capital (Gibson et al., 2000; Hampton, 2003; Lee & Lee, 2010) and political interest (Xenos & Moy, 2007). According to Bimber et al. (2008), digital media use in general does not necessarily result in higher levels of participation but rather supplements the strategic action repertoire of those individuals who already are interested in politics. As a general trend, micro-level studies so far appear to identify the concern that rather than producing an overall increase in democratic participation rates, ICT diffusion may contribute to deepen the democratic divide between those who already dispose of the skills and resources necessary for political engagement and those who do not (Norris, 2001).

However, at this point a caveat is due: The individual level research referenced above has been conducted exclusively in the context of consolidated Western democracies. Despite the widespread popular belief that the Internet will undermine authoritarian rule, the political implications of the Internet in the context of authoritarian or democratizing political systems remain relatively under-researched. The qualitative case studies produced by the Berkman Center for Internet & Society that investigate the impact of ICTs on civic engagement in authoritarian regimes have contributed to the inroads made in this field of research (Chowdhury, 2008; Goldstein, 2007; Goldstein & Rotich, 2008), as have several publications that focus on the cases of Iran (Kelly & Etling, 2008; Rahimi, 2003; Tezcür, 2012; Weitz, 2010) and China (Chen,

2009; Dai, 2000; Weber, 2007; Yang, 2003; Yu, 2006). However, primarily due to the lack of appropriate micro-level data, democratic transitions literature is still a long way from having established a clear understanding of the impact of ICT on political engagement in non-democratic systems.

In order to address this lacuna, in the following sections we present a theoretical framework regarding the causal mechanisms within the relationship between individual digital media use and democratic transition and stabilization. Specifically, we develop two competing hypothetical paths regarding the potential impact of digital media use on political participation in non-democratic or transitioning contexts. We then proceed to test these paths with data from a web-based survey conducted among 610 Tunisian Internet users in early 2012.

## **The potential link between ICT, Political Participation and Democratic Consolidation**

The Political Culture School assumes that political changes are dependent upon cultural factors. One of the most influential lines within this school is the behavioral approach that regards political culture as the aggregation of individuals' attitudes towards the political system and their perception of their own role within that system. In their landmark study *The Civic Culture*, Almond and Verba (1963) identified the existence of a civic, participatory culture as conducive to the emergence and consolidation of democracies. The notion that citizen participation is a necessary ingredient of democratic consolidation has since become one of the most firmly established convictions in political science (Dahl, 1971; Inglehart, 2003; Inglehart & Welze,

2005). The question *why* citizens do or do not participate in politics continues to receive unabated attention and over time a number of demographic, socio-economic and attitudinal factors have become generally accepted as ‘usual suspects’ in empirical research seeking to explain or predict political participation. In this paper we focus on attitudinal factors that lie at the heart of the cultural behavioral approach.

One well-established standard predictor of conventional political participation is political efficacy. The basic premise of psychological self-efficacy theory is people’s beliefs in their ability to produce a desired outcome by their own actions (Bandura, 1997; Maddux, 2001). The concept of political efficacy derives from this premise but has been differentiated as having two dimensions. *Internal efficacy* describes the extent to which a person believes to understand politics and perceives himself or herself as being able to influence politics, whereas *external efficacy* refers to the extent to which a person trusts in the responsiveness of government to citizen demands and interests (Campbell et al., 1960; Gamson, 1968). Closely related to efficacy is the developmental concept of empowerment; a process by which individuals gain mastery and control over their lives. *Political empowerment* describes a process whereby people, through their involvement in collective action, acquire higher levels of political skills which in turn positively affects the perception of their own ability to influence social and political systems (Fedi et al., 2012; Zimmerman et al., 1992; Zimmerman & Rappaport, 1988).

While survey-based research has consistently shown that a positive relation exists between efficacy and participation in conventional politics, particularly electoral turnout (Abramson, 1983; Campbell et al., 1960; Craig et al., 1990; Finkel, 1985; Pattie & Johnston, 1998), the relation between efficacy and unconventional participation or even aggressive protest is more

complex. Yet, unconventional participation and protest doubtlessly play a central role in processes of democratic transition. Where conventional forms of participation are blocked or restricted, protest enables citizens to voice their grievances and generate collective pressure on governments to respond to their demands (Chang & Chyi, 2009).

Therefore, unconventional or protest forms of political activity carry important implications for the development of political attitudes during transition processes. On the one hand, it can be generally expected that internal efficacy will influence individuals' decision whether or not to participate in protests against an authoritarian regime. On the other hand, where mass protests lead or contribute to the breakdown of a regime it can also be expected that the nature of individuals' involvement in these events will shape their political behavior in the subsequent phase.

To date, empirical research on the underlying causal linkages relating unconventional and protest forms of political behavior, efficacy, empowerment, and conventional participation has mainly been conducted in the context of consolidated democracies. Craig and Magiotto (1981) for instance, found US college students who were internally efficacious and externally inefficacious to be more likely to approve the use of political protest and violence. Using panel data from West Germany, Finkel (1987) likewise found no significant relation between participation in protest and political self-efficacy but a strong and significant relation between aggressive protest action and negative system support. At the same time the results of his analysis did not support the empowerment hypothesis of earlier citizenship theories according to which individuals develop political self-competence through the act of voting. Among the few examples of survey-based research on this topic in transitioning contexts are the studies that examine Hong Kong residents'

sense of political efficacy and propensity of protest participation during the critical transitional phase following the handover from British to Chinese rule (Chan & Lee, 2005; Chang & Chyi, 2009). In their study, Chang and Chyi (2009) indicated that individuals with a high degree of internal efficacy and low degree of external efficacy had a stronger propensity to participate in protest marches.

In the realm of political communication, the question of how the Internet, and particularly its use for political purposes, may affect individuals' political efficacy, continues to be highly debated. Based on a telephone survey of 468 residents of Tompkins County, New York, Scheufele and Nisbet (2002) found the role of the Internet in promoting active and informed citizenship to be minimal. Using data from the 2000 National Annenberg Election Survey (NAES), Kenski and Jomini Stroud (2006) found that the variance in levels of internal and external efficacy explained by Internet access and online exposure to campaign information was minimal compared to other factors. On the other hand Lee (2006) found exposure to online news sites and the use of the Internet for sending or posting political messages to be relatively significant predictors of internal political efficacy of US college students. The latter, more optimistic conclusion is supported by the studies of Di Gennaro and Dutton (2006) and Coleman et al. (2008). The suggested underlying mechanism is that the Internet appeals to people that perceive the government as irresponsible to citizens' concerns and who think that the Internet will help their chances of being heard and have an impact on the political process.

In light of the above review of relevant literature it seems reasonable to assume that in a transitioning context any potential impact of ICT on a person's political participation should be mediated by their specific political use of ICT and the perceptions of political efficacy and

empowerment derived thereof. However, concerning the question of whether this process should work to the benefit or detriment of democratic participation and consolidation, different causal paths leading to different outcomes are conceivable. Individuals that perceive a government as non-responsive to their concerns and themselves as having little efficacy to influence government action via conventional channels of political participation may think of the Internet as an alternative means to make themselves heard and impact on the political process. Their engagement in online political activity could help them to develop higher levels of political efficacy that would likely result in increased levels of offline political participation.

It logically extends from previous work to expect such a developmental process to be considerably reinforced if engagement in online political activity occurs in the context of a social or protest movement that succeeds in its aim to achieve a certain political outcome, here: the breakdown of an authoritarian regime. Having successfully acted in concert with others to achieve this goal is likely to activate strong feelings of personal and collective political empowerment on behalf of the participants and should encourage them to continuously engage in politics. Having been part of the movement that brought about the desired political change may also bestow these citizen actors with a sense of ‘ownership’ over the democratic reform process and increase their willingness to channel future political action through the newly established democratic institutions. According to this first path, the use of ICT could work to the benefit of democratic consolidation.

From a more pessimistic paradigmatic interpretation, the possibility exists that ICT could act as a destabilizing factor in the context of recently established democracies. Participation, when interpreted as a sign of approval or conferral of legitimacy, is a rather different phenomenon than

normative notions of participatory democracy. As Lipset (1960) argued, economic development aside, the stability of any democracy depends upon its capacity to engender public confidence in its efficacy. Whether transitioning democracies succeed in maintaining such confidence crucially depends on how they handle the entry into politics of previously excluded social groups. The precarious stability of young democracies derives precisely from the high hopes that such formerly excluded or marginalized groups place in them regarding the advancement of their social and economic status. Where such hopes are disappointed, new electorates are vulnerable to frustration and democratic disenchantment. This situation in turn may lead to either political apathy or new waves of political protest that threaten the stability of fledgling democracies.

In such a context, the very individuals who, through their use of ICT, experienced political empowerment may feel emboldened to employ their newly adopted political digital literacy and skills to mobilize popular protest against grievances rather trying to achieve societal or political change through the newly established institutions of representative democracy. According to this second path, ICT could work to the detriment of democratic consolidation.

## **The role of ICT in Tunisia's political transition**

### **ICT in mobilizing Tunisia's 'Arab Spring' protests**

Between its independence in 1956 and 2011 Tunisia experienced little democratic progress. President Zine El Abidine Ben Ali, who rose to power in a bloodless coup in 1987 against former president Habib Bourguiba, was expected to usher in a new era of political pluralism. In fact, however, his taking over did not mark a significant departure from his predecessor's

authoritarian style of government. The Ben Ali regime systematically asserted control over all institutions that could constitute a countervailing power-parliament, the judiciary, the press, political parties, universities, and professional associations (King, 2007).

Although official censorship was abolished, most of the media remained under government control and many journalists engaged in self-censorship to avoid government retribution. Despite being given the opportunity to vote in regular, nominally competitive elections for the legislature and the presidency, Tunisian citizens were not effectively able to change their government. The ruling *Rassemblement Constitutionnelle Democratique* (RCD) party held a monopoly on public life in the country and there was no true opportunity for the effective rotation of power. The regularly staged elections did little to dispel the government's authoritarian and uncompromising image. Opposition parties were subjected to harsh repression and their leaders were periodically and arbitrarily arrested (Zisenwine, 2004). By 2009 Tunisia's opposition parties had been so effectively browbeaten that several of them endorsed Ben Ali's candidacy for his fifth consecutive term in office, casting doubt on their ability to serve even as symbolic alternatives to the regime.

While Ben Ali achieved progress in modernizing parts of the society and Tunisia displayed relatively high levels of human development compared to its regional neighbors, the country exhibited a significant divide between rural and urban areas, and especially between the developed, tourist-friendly coast and the poorer interior. The remote sub-Saharan governorates of the interior, popularly labeled "areas of darkness", were systematically neglected by the regime and were characterized by profound social and political isolation and rampant economic

deprivation with a youth-unemployment rate nine times higher than in the capital (International crisis group, 2011; Saidani, 2012).

On the 17<sup>th</sup> of December 2011, the distress triggered by these socioeconomic, generational and geographic disparities was epitomized by the self-immolation of Mohammed Bouazizi in the provincial town of Sidi Bouzid. The 26 year-old fruit seller set himself on fire after a female police officer had confiscated his wares because he did not have a vendor's permit and publicly humiliated him by slapping him in the face. Bouazizi's suicide immediately sparked violent confrontations between police forces and the citizens of Sidi Bouzid. Over the following weeks, the protests expanded into a nationwide protest movement with outraged citizens demanding the demission of Ben Ali. On the 14<sup>th</sup> of January, confronted with the largest anti-government demonstration that Tunis had ever seen, the President and his family fled the country on a plane to Dubai.

One of the hallmarks of the Tunisian uprising was the prominent role of ICT in mobilizing protest. In line with Ben Ali's oft-reiterated desire to develop the Internet in Tunisia, starting from the mid-1990s his government had invested heavily in the telecom sector. As a result, by the mid-2000s Tunisia had one of the most developed telecommunications infrastructures in Northern Africa. Competition between eleven Internet service providers led to relatively low access tariffs and by 2008, 1.7 million out a total population of 10.2 million inhabitants had access to the Internet. Tunisians for whom personal computers remained prohibitively expensive could access the Internet from one of the 300 public Internet centres (*publinets*) set up by the authorities throughout the country.

At the same time, however, the government went at length to keep freedom of expression online at bay. In 1996, the Tunisian Ministry of Communications established the Tunisian Internet Agency (ATI) to regulate the country's Internet. In 1998, a telecommunications law authorized the agency to intercept and check the content of email messages under the pretext of preventing access to material contrary to public order and morality. Since the ATI was the gateway from which all of Tunisia's ISPs leased their bandwidth and all fixed-line Internet traffic passed through their facilities, the agency was able to load content control and filtering software onto their servers. Furthermore, the downloading from or adding attachments to an e-mail had to go through a central server (OpenNet Initiative, 2009). Different from other Internet censors in the Arab World (e.g. Saudi Arabia and United Arab Emirates) who publish reports on their activities and alert users when they try to access a blocked page, the ATI purposefully hid its censorship activities from Internet users. Websites blocked within Tunisia appeared with a fake 404 "File not found" error message – a practice which gained the agency the nickname "Ammar 404"<sup>2</sup> among Tunisian Internet users.

As cyber activist Yassine Ayari recalls:

In 2009, there was a wave of censorship never seen before. It was ridiculous. Everything was censored. Any website having the words *human* or *rights* in it would be blocked. YouTube, DailyMotion, WorldTV ...all the video sharing platforms were shut down. If you had more than 20 visitors on your blog, no matter what the subject - even if you were blogging on cooking recipes - it would be blocked automatically.

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<sup>2</sup> Censor 404

In addition to technical surveillance, the ATI exercised control by obliging service providers such as Internet café owners and the ‘publinets’ to register the ID numbers of Internet users and by holding them legally responsible for their customers’ online activities.

Despite these efforts, the government was unable to fully suppress dissident activism on the Internet. Tunisia’s early commitment to ICT infrastructure development had created an essential resource for the formation of personal networks of digital activists. Starting from the late 1990s, bloggers and digital activists continuously challenged the regime’s control of the public sphere and offered an alternative discourse to the official political narrative that held enormous emancipatory potential. As elsewhere in the region, one of the most important functions of digital activist networks was helping to develop a new culture of public deliberation and to construct a national collective identity supportive of resistance to an increasingly unpopular regime (Murphy, 2009) .

During the ignition phase of the protests in the two weeks following the self-immolation of Mohammed Bouazizi on 17 December 2011, bloggers with previous cyber-activism experiences were able to aggregate stories of government abuse and to use technology to bypass state authorities to broadcast images and narratives about the Ben Ali regime that provided the information basis upon which movement activists were able to build. During the escalation phase of the protests, from late December to early January 2011, the Internet became increasingly important in relaying information about the extent of the protests which state controlled media desperately tried to conceal.

1) As activist Yassine Ayari explains:

2) When the revolution came I was in Belgium. At that time I was already known through the [Tunisia in white] demonstration and my blog. I had 2000 or 3000 friends on Facebook which gave me a little bit of influence. So I took a vacation from my job and sat with three other friends, PCs, pizzas, and a telephone. We tried to use all the information we could handle: status updates, pictures, videos. When we heard that something happened in Kasserine or somewhere else, we'd pick up the phone, we'd know someone who knows someone and we would find the information and post it.

By informing about the magnitude of past protest events and helping to calculate the extent of upcoming events, social media helped Tunisian citizens to overcome the “barrier of fear” associated with protest under authoritarianism. In these ways, the Internet served as the foundation for the articulation and aggregation of grievance, and acted as a significant resource that helped overcome problems of collective action and foment a successful protest movement that resulted in regime change (Breuer, 2012; Breuer et al., 2012; Chomiak, 2011; Howard & Hussain, 2011; Kuebler, 2011; Marzouki et al., 2012; Schraeder & Redissi, 2011).

## **The role of ICT in post-authoritarian Tunisia**

Notwithstanding the important role of social media in bringing down the authoritarian regime of Ben Ali, it remains unclear if and how ICT can contribute to the consolidation of the country's newly established democracy.

Although Tunisia is regarded as a regional role model among the countries that were politically transformed by the 2010 / 2011 Arab Spring movements, its democracy is far from consolidated. At the moment of writing this paper, the religious-secular cleavage presents one of the most

serious threats to the stability of democracy and societal peace. Despite the fact that the protest movement that toppled Ben Ali was essentially borne by the secular segments of Tunisia's society (Lynch, 2012; Noueihed & Warren, 2012), the moderate Islamist Ennahda party obtained 41.7 percent of the vote in the subsequent elections to the Constituent Assembly in October 2011 and thus controls the largest share of Assembly seats (89 of 217). To assess the level of popular support for Ennahda based on electoral results alone is difficult: While the electoral commission enthusiastically announced a turnout of more than 90 % in the elections, this merely refers to the 4.1 million citizens registered as voters ahead of the poll. In fact, the turnout of eligible voters was 52% (8,289,924 eligible voters, 4,308,888 cast votes). This is well below the average turnout of 61% reported for first founding elections after a period of authoritarian rule between 1945 and 2000 (International IDEA, 2004).

Many of the secular-minded digital activists who emerged as key figures in the online protest movement were deeply skeptical about the democratic convictions of Ennahda party leaders, but have been dealing with their misgivings differently: While some of them (e.g. Slim Amamou, Yassine Ayari, Mehdi Lamloum, and Riadh Guerfali) tried to capitalize on their online popularity by running as independent candidates to the Assembly, others (e.g. Nobel Peace Prize nominee Lina Ben Mhenni) called for a boycott of the elections on their blogs as soon as polls started to indicate a strong showing of religious forces in the vote. Following Ennahda's electoral victory, a continued trend of polarization along the religious-secular divide has been observable both online and offline. Individual actors and groups espousing radical versions of either of the

two ideologies have sizeable social media followings.<sup>3</sup> Over the past two years, secular and religious groups have also repeatedly – and sometimes violently – clashed in the streets. A heavy involvement of social media in the mobilization and orchestration of such violent confrontation is a commonly observed phenomenon.

One illustrative example is the confrontation related to the film *Persepolis* that took place shortly prior to the assembly elections in October 2011. After the progressive TV station *Nessma* had aired the award-winning animated film, which is regarded as offensive to Islam by conservative Muslims for visually representing God, messages appeared on Facebook calling for the channel's headquarters to be torched and its journalists to be killed.<sup>4</sup> Shortly after, riot police had to disperse a group of 200 Salafist protesters who tried to attack the TV station's building. Reacting to this incident, secular minded members of the Tunisian web-community joined forces in an ad hoc movement for the defense of freedom of expression called *A3ta9ni*<sup>5</sup> with a Facebook presence in the form of a group page. A pro-liberty-of-speech march was organized to take place in the capital on 16 October 2011 and advertised using the Facebook Group Event function.

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<sup>3</sup> One Facebook community that brands Ennahda as a criminal organization has 21.262 “likes”, <http://www.facebook.com/NAHDHACRIMINEL>; the Facebook followership of Sheik Bechir Ben Hasan, a radical Salafist who advocates for the establishment of sharia law as the main source of legislation in the new constitution, amounts to 104.327 fans.

<sup>4</sup> Cecile Feuillatre (Agence France Presse, AFP) on GoogleNews 9 October 2011: Tunisia police thwarts Salafist attack on TV station. <http://www.google.com/hostednews/afp/article/ALeqM5hCxQYeND3OOA-PYPHnJpXhf3ehhg?docId=CNG.0454f4975c6c9282ea46c0cbb683c59b.b91>

<sup>5</sup> The term is a composite of the Tunisian dialect, Derya, and the numerical abbreviations typically used in chat forums. It can roughly be translated as “set me free”

10.000 group members announced their participation, while about 5.000 citizens actually turned out to protest.<sup>6</sup>

Altogether, then, it seems fairly clear that that Tunisia's democratic transition is a fragile and contested process in which political communication and mobilization via ICT and social media have played and will continue to play an important role. Whether ICT will act as a stabilizing or destabilizing element remains an open question. The remainder of this paper thus seeks to shed light on the role that digital political communication has played in the Tunisian transition process so far. Based on data from a web survey among 610 Tunisian Facebook users, we address the following research questions:

*RQ1:* Did respondents' political use of the Internet during the revolution have a significant effect on their perceived political efficacy, or put differently: did the use of the Internet contribute to the development of individual political empowerment?

*RQ2:* Continuing, was offline political action during the revolution positively related to respondents using forms of online media for political purposes?

*RQ3:* Finally, is there a relationship between online media use, efficacy levels and voting in representative elections post-democratization?

## Method

To address these questions, a two-step mixed methods design of data collection was applied to the Tunisian case. The first, qualitative, phase involved a field trip to Tunisia in October 2011

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<sup>6</sup> Le Courier de l'Atlas 16 October 2011: «Aatakni» : Les manifestants pour la liberté d'expression plus nombreux que les intégristes. <http://www.lecourrierdelatlas.com/98616102011Aatakni-Les-manifestants-pour-la-liberte-d-expression-plus-nombreux-que-les-integristes.html>

during which semi-structured expert interviews were conducted with 16 Tunisian bloggers and Internet activists. The interview partners were asked to provide information about their own online and offline protest activities prior to and during the uprising, to describe the nature of digital activist networks and their own position in these structures, to provide a personal assessment of the contribution of ICT to the protest movement, and to help identify online content which they regarded as having been particularly influential.<sup>7</sup>

Based on the findings, a mostly closed-ended survey questionnaire was developed in a second quantitative phase in order to learn about the patterns of Internet use of individual Tunisian citizens during the uprising, as well as political attitudes and participatory behavior prior and post revolution. In the following we briefly explain the sampling method adopted in this survey, key variables, and a number of germane socio-economic, attitudinal, and behavioral characteristics of the resulting sample population.

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<sup>7</sup> Political activism in times of regime transformation comes with uncertainties for those who engage in it. This is especially true where activists have been socialized in the political culture of a recently toppled authoritarian regime with the outcome of the transition process remaining unclear. Such was the situation during the field trip for this study, which was undertaken in the week leading up to Tunisia's first democratic election following the ouster of President Ben Ali. Taking into account the diverging risk perceptions of interview partners, the information given by them was therefore subsumed into the narrative of the case study, unless they explicitly agreed to their identity being revealed.

## Sampling

Between 1 March and 31 May 2012 the German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE) conducted a web survey among Tunisian Facebook users. The web software used to administer the survey was SurveyMonkey. The survey contained a total of 34 questions and took about 12 minutes to complete. It was conducted in Arabic and was pilot-tested for comprehensiveness and ease of use among native Tunisian-Arabic speakers prior to its launch. Participation in the survey was promoted using a respondent-driven, snowball sampling technique.<sup>8</sup>

To build the sample, we formed an online group on Facebook<sup>9</sup> dedicated to the discussion of the role of the social media in the Arab Spring and invited the activists interviewed during the field trip to join the group. The group was then systematically enlarged using *the Facebook friendship suggestion algorithm* whereby the network recommends new friends to its users on the basis of their existing friends (Daniyalzade & Lipus, 2007; Howard, 2011). Once the survey had been launched, an invitation to participate was sent to members of this group using the *Facebook group event organizing function*. The invitation message contained the survey's URL, a brief description of its academic purpose, as well as the suggestion to circulate the survey URL among friends, relatives and colleagues. No monetary or other material incentive was offered to the

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<sup>8</sup> The method applied here is similar to the chain-referral sampling methods which have hitherto been used primarily in social science research to contact hidden or difficult-to-reach populations such as drug users or sex workers (Salganik & Heckathorn, 2004)

<sup>9</sup> <http://www.facebook.com/groups/270562439633722/>

respondents. Reminder messages were sent to the primary contacts three weeks and again six weeks after the launch of the survey. The survey resulted in 610 responses.

While Facebook is careful not to reveal the exact details of the friendship suggestion algorithm, we may assume that our sample population resembles a fuzzy set (Ragin, 2000) with politically interested and highly motivated users at its core and less engaged users towards the edges. When interpreting the survey results, it is therefore important to keep in mind that these refer to a population of more or less politically engaged Internet users and do not permit inferences about the behavior of individuals who are fully outside this set, i.e. those who can be regarded as politically apathetic and/or were not connected to the Internet.

## Findings

The sample is relatively young with 24.0% of respondents born in the 1970s, 38.8% in the 1980s, and 10.1% born in the 1990s. Altogether, the mean (M) age was 35.80 years with a standard deviation (SD) of 11.64, with the youngest respondent being 16 and the oldest 92. With 77.8% of male respondents, the sample studied here is more male-dominated than Tunisia's overall Facebook population (58.0% male).<sup>10</sup> The sample population is also relatively highly educated with 49.8% of respondents holding a Bachelor and 37.0% a graduate degree, compared to the Tunisian population in general of which 6.2% held a university degree in 2010 (African Economic Outlook, 2012; Bank, 2012). Only 12.5% of the respondents in this study indicated secondary school as their highest completed educational level.

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<sup>10</sup> [www.socialbakers.com](http://www.socialbakers.com)

The majority of respondents in this sample are medium to heavy users of the Internet with 28.3% reporting a daily Internet use of 3-4 hours and another 43.6% reporting daily Internet use of more than 5 hours per day. Altogether, the average of time online per day was 3.11 (SD = 0.91) on a scale from 1 (less than 1 hour) to 4 (more than 5 hours). Network embeddedness among these respondents is also relatively high. 98.5% indicated Facebook as their most important online social network, and 65.4% reported having more than 200 friends on their most important network, which is well above the worldwide average.<sup>11</sup> In addition, a considerable number of respondents maintained profiles in more than more than one social network, with YouTube (46.3%) and Twitter (44.0%) coming second and third in terms of importance. The vast majority reports an informational rather than a recreational use of the Internet with 93.0% indicating “following the news” as their most important habitual online activity. Though not generalizable on these features to the larger Tunisian population, this sample nonetheless provides valuable insights into a group of individuals previously shown to have been digitally literate, socially interconnected, and politically active.

Regarding regime support, 55.4% assessed the capacity of the Ben Ali regime to create employment as very bad, and 57.5% strongly agreed to the statement that under his rule it was impossible to get a job without family connections.<sup>12</sup> These two items loaded highly in factor analysis with varimax rotation (Cronbach’s  $\alpha = .767$ ), and were therefore summed and then

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<sup>11</sup> The average number of “friends” in a Facebook network is 130. Interestingly, this is close to the famous “Number of Dunbar”, named after the anthropologist Robin Dunbar who suggested that the size of the human brain allows one to maintain stable networks of about 148 members (Dunbar, 1998).

<sup>12</sup> Other proxy variables for regime support used in the survey were assessments of the regime’s performance concerning combating corruption, narrowing the gap between rich and poor, and managing the economy

divided by two in order to maintain a metric on the original four-point scale ranging from 1 (very bad) to 4 (very good) in even increments. The mean of this combined measure was 1.69 (SD = 0.67), indicating that job conditions were perceived by most in the sample as quite bad.

Interestingly however, prior to the revolution 48.8 % of respondents were fully employed, only 8.2% unemployed and a relatively large fraction of 27.1% claimed to be students. One possible interpretation of this apparent contradiction is that a large part of those still studying held a rather gloomy perspective concerning their future job opportunities, given the high rates of youth unemployment in Tunisia. While 90% indicate Muslim as their religious affiliation, respondents predominantly subscribe to secular views with 55.9% strongly agreeing to the statement that religious leaders should not influence government decisions. A measure of secularism ( $\alpha = .82$ ) was created from five variables regarding views on religious freedom, Islamic law, and the perceived benefit of separating church and state. The mean of this item was 3.12 (SD = 0.77) on a four-point scale ranging from 1 (very religious government views) to 4 (very secular government views).

Political use of the Internet during the period of the Tunisian revolt (17 December 2010 to 14 January 2011) was measured by a battery of seven questions for which four frequency choices (never, once, several times, often) were offered. The results display a relatively high degree of political Internet use among respondents. 60.5% reported to have often discussed the political situation online with relatives, friends, or colleagues. The frequency of online political discussions with strangers was somewhat lower (44.3% several times, 28.7% often). A large share of respondents also reported to have often used the Web to search for information about the protest movement and related protest events either in their home town (60.8%) or other parts of

the country (67.9%). The sharing online of information about the protest movements and related events with relatives, colleagues, and friends was an activity that 53.2% of respondents reportedly engaged in often, while sharing information with strangers living inside Tunisia, or people living outside Tunisia was less frequent – 41.5% and 34.8% indicated to have done so often. These seven variables were summed and divided as before to keep the original metric intact, and the overall mean was 3.21 (SD = 0.69), thereby producing a reliable ( $\alpha = .839$ ) indicator of generally regular use of the Internet for these political purposes.

Concerning electoral participation, the vast majority of respondents (85.4%) had abstained from voting in the last parliamentary and presidential elections under authoritarian rule in 2009, whereas 86.3% reported to have voted in the democratic founding elections to the Constituent Assembly on 23 October 2011. This difference, when measured with an independent difference of proportions test, is statistically significant ( $Z = 22.01$ ,  $p < .001$ ) and clearly suggests respondents were more active in elections following the revolution.

Unconventional political participation under authoritarian rule was measured by a battery of four standard questions. Overall levels of unconventional political engagement among respondents were low. Large shares of respondents reported to never have considered engaging in the following actions: collecting signatures or signing a petition (58.8%), writing a letter to a newspaper or government officials (55.3%), working with or founding a citizen initiative (49.5%), organizing or participating in a street protest (35.2%). When summed and divided by the denominator in constructing a scale of offline political participation to the revolution ( $\alpha = .81$ ), the mean was 1.92 (SD = 0.87) on a four-point scale where 1 equals “never considering” any of the activities and 4 represents having engaged in all of the activities several times. The

average reported here thus further illustrates the very low level of offline political participation prior to the revolution.

In comparison to this finding, offline engagement in protest activities between January 2010 and December 2010 was considerably higher. 72.4% of respondents reported to have participated in a street protest once or several times during that period, and 86.1% indicated discussing the political situation face to face with relatives, friends, colleagues, or neighbors at least several times. One-time or recurring engagement in other protest activities during that period was somewhat lower (leafleting 29.0 %; wearing a sign, button or garment with a political message 26.8%). Here again, these items were combined into an additive four point scale ( $\alpha = .69$ ) ranging from “never considering” to having engaged in all activities “several times.” In this case, the mean for this type of offline political activity during December 2010 and January 2011 was 2.71 (SD = 0.74).

It is worth noting that the difference between offline political participation under authoritarian rule and offline engagement in protest activities is also statistically significant when comparing the mean levels of both combined measures ( $t(425) = 18.64, p = .000$ ). Thus, though the overall engagement in protest activities was not overwhelming, it is significantly greater than forms of offline political participation prior to the revolt.

Internal political efficacy was measured using adapted three versions of the standard questions “*People like me can influence the way in which political decisions are taken in my country*” and “*I feel sufficiently informed about the political situation to discuss politics with other people*” (Craig et al., 1990; Niemi et al., 1991). The results observed here indicated that prior to the revolution, only 1.8% of respondents “agreed strongly” and just 12.4% “agreed” that they could

influence political decisions in Tunisia, whereas respondents that “agreed strongly” reached 33.4% after the revolution, and another 48.6% “agreed” with this sentiment afterwards. Not surprisingly, when the levels of those who strongly agreed and agreed were compared with an independent difference of proportions test, the result was statistically significant ( $Z = 21.32$ ,  $p < .001$ ) and demonstrate a considerable change in the perceived degree of political efficacy from the authoritarian to the post-authoritarian period across the sample.

In both cases, internal political efficacy was summed into scales that ranged from 1 (very low internal political efficacy) to 4 (very high internal political efficacy) to carry out a direct comparison. Under the authoritarian Ali regime, the mean level of this scale ( $\alpha = .55$ ) was 1.85 ( $SD = 0.60$ ) and that average increased on the measure of internal political efficacy after the revolution ( $\alpha = .82$ ) to 3.28 ( $SD = 0.64$ ). The difference between these two means was statistically significant ( $t(421) = 31.09$ ,  $p = .000$ ) and demonstrates with certainty that internal political efficacy after the revolution was vastly increased amongst the respondents than before. Further regression analyses examine the extent to which this shift is linked to the use of online and social media.

When specifically looking at RQ1, a regression model examined the extent to which respondents’ political use of the Internet during the revolution had a significant effect on their perceived political efficacy after the rebellion. Results indicated that of all variables considered (see Table 1 for full model), only four neared or achieved statistical significance. Two of these variables were explicitly related to online media use. One, social network sites (SNSs) being the preferred media format for political communication, was a summed four-point scale based on three variables that SNSs were the best place to exchange information, were safer, and more

truthful than mainstream media ( $\alpha = .702$ ). This variable was a positive, significant predictor of greater political efficacy after the revolution ( $\beta = 0.34$ ,  $SE = 0.08$ ,  $p < .001$ ).

The other variable—reactive emotional responses to SNS content—was constructed from self-reported assessments concerning the extent to which the consumption of SNS coverage of the protest events increased doubts about the legitimacy of the Ben Ali regime, feelings of empathy with the protesters, and feelings of hope and patriotic pride. This item was also a summed and divided scale based on three items ( $\alpha = .663$ ), and had positive coefficient ( $\beta = 0.19$ ,  $SE = 0.08$ ,  $p < .05$ ). The other variables that approached significance included a scale of perceived civil liberties ( $\beta = -0.19$ ,  $SE = 0.10$ ,  $p = .06$ ) in which those with lower opinions of the assuredness of the civil liberties were more likely to have higher levels of internal political efficacy, and age in years ( $\beta = 0.01$ ,  $SE = 0.01$ ,  $p = .08$ ). These results suggest that use of the Internet for political purposes, particularly SNSs, among this group of respondents did contribute to the development of individual political empowerment in Tunisia.

In examining RQ2, the instance of whether or not the use of the Internet led to a development of individual political empowerment was explored by modeling a regression with offline political action during the revolution. Here, it is clear that more frequent Internet use for political purposes was a statistically significant and positive factor ( $\beta = 0.19$ ,  $SE = 0.06$ ,  $p < .001$ ) in various forms of offline participation, as was a reliance on Al-Jazeera as a news source ( $\beta = 0.26$ ,  $SE = 0.08$ ,  $p < .001$ ) and an increased level of offline political participation prior to the rebellion ( $\beta = 0.31$ ,  $SE = 0.04$ ,  $p < .001$ ). Likewise, reactive emotional responses to SNS content approached significance ( $\beta = 0.12$ ,  $SE = 0.07$ ,  $p = .09$ ), along with SNS having been a place where respondents learnt of protest activities ( $\beta = 0.06$ ,  $SE = 0.03$ ,  $p = .08$ ). Other factors

included preferring more secular government ( $\beta = 0.14$ ,  $SE = 0.05$ ,  $p < .01$ ) and seeing the Ben Ali regime having done little to manage economic growth and create jobs ( $\beta = -0.16$ ,  $SE = 0.06$ ,  $p < .01$ ) and being somewhat less educated ( $\beta = -.11$ ,  $SE = 0.05$ ,  $p < .05$ ). These findings clearly indicate that offline political action during the revolution was quite positively related to respondents using forms of online media for political purposes, but the contribution of Al-Jazeera as a more traditional media format is worth noting as well. Full model is summarized in Table 2.

Finally, when considering RQ3 and if there is a relation between online media use, efficacy levels and voting in representative elections post-democratization, a binary logistic regression was modeled. This final model considered the 2011 vote for the Constituent Assembly and found that increased internal efficacy after the revolution was significant and positive ( $\beta = 0.91$ ,  $SE = 0.29$ ,  $p < .01$ ). Likewise, increased use of the internet on a daily basis led to a greater likelihood of having voted ( $\beta = 0.44$ ,  $SE = 0.24$ ,  $p = .07$ ), as did relying on Al-Jazeera for news and information ( $\beta = 1.85$ ,  $SE = 0.62$ ,  $p < .01$ ). Indeed, the odds ratio here indicates Al-Jazeera viewers were 6.37 times more likely to have voted.

All other variables that were significant were also non-positive (decreased the likelihood of having voted). Interestingly, respondents that reported SNSs as their preferred media for exchanging, being safer, and more truthful ( $\beta = -0.94$ ,  $SE = 0.46$ ,  $p < .05$ ) suggested that as a general pattern, preferring SNSs slightly diminished the likelihood of having voted in the 2011 election for Constituent Assembly. Likewise, those that reported watching videos on YouTube ( $\beta = -0.97$ ,  $SE = 0.47$ ,  $p < .05$ ) and Al-Arabiya ( $\beta = -1.47$ ,  $SE = 0.65$ ,  $p < .05$ ) were also less likely to have cast a ballot in 2011 than those that did not use those media. Altogether, there was thus

somewhat mixed evidence for RQ3 that online media use was positively related to voting after the Tunisian rebellion, but increased internal political efficacy was an important positive factor (see Table 3).

## Conclusions

This study set out to explore the role of social media in shaping citizens' political attitudes and behaviors in times of political transition. More specifically, we sought to determine whether 1) the political use of online and social media can promote political mobilization and political empowerment under authoritarianism, thus contributing to autocratic breakdown and whether 2) whether Internet and SNS use can positively impact on participation in democratic-founding elections thus making a positive contribution to democratic consolidation beyond rebellion. The survey evidence observed here suggests an affirmative answer to both these questions. Across a sample of digitally literate and politically active Tunisian citizens we observed statistically significant in-person increases in both internal political efficacy, offline political participation, and voting behaviors over the period of transition from authoritarian to post-authoritarian rule.

We also observed a significant positive change in engagement in unconventional political activities under authoritarian rule to engagement in such activities during the phase of the unrests that led to the regime's collapse in January 2011. The results of the different regression analyses performed to test the mediating role of the Internet in bringing about these behavioral and attitudinal changes suggest a positive impact but patterns are complex and not perfectly interchangeable in most cases. There is also not a direct linear causal path that can be observed

from online media use to internal political efficacy to offline political participation and voting, but as has been described, there are certain linkages amongst these factors.

The political use of SNS was shown to have significantly contributed to increased political efficacy after the rebellion. Interestingly however, this was only true for the socio-psychological functions of political SNS like trust in SNS as being a reliable sources of political information and safe formats for the exchange of such information, as well as reactive emotional responses to SNS content, whereas quantitative features such as frequency of political SNS use and number of friends (as an indicator of network embeddedness) did not have a significant impact on efficacy. We also found a significant negative impact of perceived guarantees of civil liberties under Ben Ali where citizens who believed these were less assured were more efficacious after the rebellion.

Concerning the mobilization of protest, regression analysis revealed a significant impact of both emotional responses to SNS content and frequency of political SNS use on individual protest participation. These findings consolidate the notion of SNS as an central resource for the mobilization of protest against authoritarian rule and emphasize its role as a transmitter of emotions that contribute to the formation of collective identities supportive of protest action – a function that has long been regarded as essential by attitudinal and network approaches to political activism (Friedman & McAdam, 1992; Jasper & Poulsen, 1995; van Laer, 2011).

We also found negative evaluations of the Ben Ali regime to have significantly influenced protest participation, which supports the findings of previous studies concerning the existence of a strong positive relation between negative regime support and protest behavior (Craig & Magiotto, 1981; Finkel, 1987; Chang & Chyi, 2009).

The final regression model in this study considers the 2011 vote for the Constituent Assembly and found that increased internal efficacy after the revolution was significant and positive. Likewise, increased use of the internet on a daily basis led to a greater likelihood of having voted, as did having a greater reliance on Al Jazeera during the revolt. Alternatively, those that reported SNSs as preferred media for exchanging, being safer, and more truthful showed a negative relationship to voting in 2011, which suggests that as a general pattern, preferring SNSs would not itself relate to greater involvement with voting, and that some who did report preferring SNSs still did, indeed, vote in the 2011 election for Constituent Assembly. The same was true of relying on YouTube and Al Arabiya during the protests.

Taken together, these findings suggest that online media can indeed positively contribute to democratic consolidation beyond rebellion, and fits with some similar findings regarding the Arab Spring (Papacharissi & Oliveira, 2012; Groshek, 2012). However, it appears that its role in mediating political efficacy and participation is based less on those features of SNS that facilitate the mobilization of collective protest action but rather on citizen confidence in SNS as reliable sources of trustworthy political information. Just as media sources do not prove media effects, online media platforms are not equivalent in the ongoing negotiation of transitional democratic states but as others scholars have noted (Gil de Zúñiga et al., 2012; Rojas & Puig-i-Abril, 2009) there is good reason to expect certain political uses online to relate positively to vital online and offline political activities. Evidence presented here upholds that finding in post-rebellion Tunisia.

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Table 1: Regression Model for RQ1--Increased Internal Political Efficacy After Rebellion

Variables	$\beta$	SE
Internal political efficacy pre-rebellion	.0482986	.0737101
Offline political participation during rebellion	.0234682	.0682575
Offline political participation pre-rebellion	-.0727843	.0537067
Frequency of Internet use for political purposes	.0570267	.0646388
Level of daily Internet use in general	.0467189	.0459756
Number of friends in preferred SNS	.0383242	.0460491
Strength of preference for SNSs during rebellion	.3357936***	.077831
Frequency of learning about protest activities through SNS	-.0302661	.0366571
Degree of self-reported SNS emotive influence	.1897772*	.0810635
Intensity of negative Internet beliefs	-.0774092	.0785676
Secularism	-.0583545	.0563035
Level of perceived civil liberties under Ali	-.190449 <sup>#</sup>	.1021581
Assessment of Ali's ability to create jobs and manage economy	-.0764405	.0637804
Level of perceived respect and fairness from police under Ali	.0900572	.0685261
Use of Facebook during rebellion	-.0578848	.2863373
Use of YouTube during rebellion	-.0694314	.0777796
Use of Twitter during rebellion	.0050552	.0871792
Use of Vimeo during rebellion	.3497523	.4465882

# ACCEPTED MANUSCRIPT

Use of Dailymotion during rebellion	.1281746	.1293198
Use of Weblogs during rebellion	-.0454717	.0847294
Use of Al-Jazeera during rebellion	.0401045	.0876444
Use of Al-Arabiya during rebellion	.084422	.1013436
Gender (being male)	-.0474914	.0944779
Being married	-.017298	.1053289
Level of education	-.0210427	.0538266
Being enrolled as a student	.1164893	.1365461
Being gainfully employed	.0313927	.1139704
Age in years	.0094219 <sup>#</sup>	.005453
Constant	1.409417*	.627839

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*Note:* Coefficients are unstandardized.  $N = 288$ . Adjusted  $R^2 = 0.1398$

<sup>#</sup>  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

ACCEPTED MANUSCRIPT

Table 2: Regression Model for RQ2--Increased Offline Political Participation During Rebellion

Variables	$\beta$	SE
Internal political efficacy post-rebellion	.0194393	.0565395
Internal political efficacy pre-rebellion	-.0127021	.0671362
Offline political participation pre-rebellion	.3199934***	.0448422
Frequency of Internet use for political purposes	.1914746***	.0577038
Level of daily Internet use in general	-.0324518	.0418783
Number of friends in preferred SNS	.0579077	.0418119
Strength of preference for SNSs during rebellion	.0657679	.0732232
Frequency of learning about protest activities through SNS	.0592801 <sup>#</sup>	.0332027
Degree of self-reported SNS emotive influence	.1255859 <sup>#</sup>	.0741448
Intensity of negative Internet beliefs	.0535126	.071563
Secularism	.1379979**	.0506283
Level of perceived civil liberties under Ali	.057219	.0935307
Assessment of Ali's ability to create jobs and manage economy	-.1572111**	.0573833
Level of perceived respect and fairness from police under Ali	-.028778	.0625493
Use of Facebook during rebellion	.0582795	.2605978
Use of YouTube during rebellion	-.016719	.0708903
Use of Twitter during rebellion	-.0795275	.0791903
Use of Vimeo during rebellion	.1494518	.4068257

# ACCEPTED MANUSCRIPT

Use of Dailymotion during rebellion	.0696349	.1178407
Use of Weblogs during rebellion	.0342969	.0771276
Use of Al-Jazeera during rebellion	.2579463***	.0781733
Use of Al-Arabiya during rebellion	-.1396575	.0919501
Gender (being male)	-.059942	.0859478
Being married	-.1044956	.0956472
Level of education	-.1070343*	.0485499
Being enrolled as a student	.0039508	.1244481
Being gainfully employed	.0483606	.1036989
Age in years	-.0040482	.0049851
Constant	.729273	.5751613

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*Note:* Coefficients are unstandardized.  $N = 288$ . Adjusted  $R^2 = 0.410$

#  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

ACCEPTED MANUSCRIPT

Table 3: Logistic regression model for RQ3--Having voted in the 2011 Constituent Assembly

Variables	$\beta$	<i>SE</i>	<i>Exp</i> ( $\beta$ )
Frequency of Internet use for political purposes	.186	.363	1.204
Level of daily Internet use in general	.442#	.244	1.556
Number of friends in preferred SNS	-.141	.260	.869
Strength of preference for SNSs during rebellion	-.935*	.458	.393
Frequency of learning about protest activities on SNS	-.255	.239	.775
Degree of self-reported SNS emotive influence	.200	.455	1.222
Intensity of negative Internet beliefs	.101	.480	1.107
Secularism	.181	.330	1.198
Level of perceived civil liberties under Ali	.186	.576	1.204
Assessment of Ali's ability to create jobs & manage economy	.238	.357	1.269
Level of perceived respect and fairness from police under Ali	.000	.378	1.000
Use of Facebook during rebellion	.378	1.369	1.459
Use of YouTube during rebellion	-.969*	.471	.379
Use of Twitter during rebellion	-.091	.500	.913
Use of Vimeo during rebellion	18.70	2.746E+4	1.326E+8
Use of Dailymotion during rebellion	.371	.756	1.449
Use of Weblogs during rebellion	.288	.501	1.333
Use of Al-Jazeera during rebellion	1.852**	.620	6.374

# ACCEPTED MANUSCRIPT

Use of Al-Arabiya during rebellion	-1.466*	.651	.231
Gender (being male)	.105	.525	1.111
Being married	.785	.616	2.193
Level of education	.197	.299	1.218
Being enrolled as a student	.183	.791	1.200
Being gainfully employed	-.198	.642	.820
Age in years	.004	.032	1.004
Having voted in the 2009 national elections	-.220	.595	.802
Increased internal political efficacy pre- to post-rebellion	.905**	.285	2.472
Increased offline political participation pre- to post-rebellion	-.466	.313	.627
Constant	-.127	3.541	.881

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*Note:* Coefficients are unstandardized.  $N = 266$ . Cox & Snell Pseudo  $R^2 = 0.141$

#  $p < .10$ , \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$

ACCEPTED MANUSCRIPT