THE ROLE OF INFORMATION TECHNOLOGY AND COMMUNICATIONS IN THE DEVELOPMENT OF THE ARAB SPRING RIOTS

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The protesters' actions during the Arab Spring have benefited the consistent support of the information technologies and communications. Although this element is not unique in the landscape of the popular protest movement of the last decade, the way it influenced the Arab riots drew the attention of both political analysts and security and internal security services of all states. The development and widespread of the information technologies and communications in countries where Islamic religious conservatism raises significant barriers to communication between people allowed the streamlined movement of information between many users and an unexpected propagation environment for the popular dissatisfactions and claims. Furthermore, the information technologies and communications have played an important role in the structuring and preparation of the contesting movements during the Arab Spring.

Keywords: Information technologies and communications; Arab Spring; Twitter Revolution; Facebook Revolution.

Introduction

December 2010 marked the outbreak of a protest movement in Tunis, the capital of Tunisia, following the very gesture of self-immolation of a young Tunisian named Mohamed Bouazizi, in the Sidi Bouzid town, after the police confiscated the fruits and vegetables which he sold on the street. The gesture of "Basboosa" as he was called after he became a "Hero in Tunisia",

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gave way to some violent protests in the North African country, which led to the expulsion of President Zine El Abidine Ben Ali and sparked a wave of riots in countries of the Arab world, from Egypt to Mauritania and Algeria to Oman.

Some series of protests and demonstrations that took place in North Africa and the Middle East, beginning with the Tunisian protest in December 2010 became known as the Arab Spring [1], although not all participants in the protests were Arabs. The success of protests in Tunisia initiated a wave of riots in Algeria, Jordan, Egypt and Yemen that later spilled over in other Arab states. Until February 2012, the Arab Spring had overthrown governments in three states. Tunisian president fled to Saudi Arabia on January 14th, 2011. In Egypt, President Hosni Mubarak resigned on February 11th, 2011, after 18 days of massive protests that ended his three decades of presidency. Libyan leader Muammar Gaddafi was overthrown on August 23rd, 2011, after the National Transition Council won control of Bab al-Azizia, and was killed on October 20th, 2011, in his hometown of Sirte.

During the Arab riots, many leaders stated their intention to give up power after the current mandate. President Ali Abdullah Saleh of Yemen signed an agreement on November 23rd 2011 allowing the transfer of power within 30 days after the official mandate in February 2012, in exchange for immunity. Sudanese President Omar al-Bashir announced he would not stand for election in 2015, as Iraqi Prime Minister Nouri al-Maliki promised, whose term ends in 2014. Jordan protests led to the subsequent resignation of two governments.

We consider that the Arab Spring is a set of popular movements, of variable scale, which has included many countries in the Arab world since December 2010. These national revolutionary movements are called Arab revolutions, Arab riots or Arab awakening.

In order to properly understand the Arab spring, its trigger mechanisms and development, we think it necessary to analyze the context in which the Arab riots took place [2]. In our opinion, the context of the Arab riots' development refers to:

- **The demographic factor -** young people from the age group of 15-25 years is a quarter of the population of the Arab countries, and they faced an unemployment rate estimated at 40%. Consequently, a young generation full of dreams, active, becoming more educated, urbanized and widely connected to the outside world via the Internet, mobile telephony, television, satellites, etc., and a restricted labor market make it a key player of the Arab riots.

- **The nature of political regimes in countries covered by the Arab Spring** - as a whole, the Arab political regimes are authoritarian, oligarchic [3]. As a

consequence, the Arab societies aspire to democratic regimes, but this seems to be a long and very difficult process because currently there is limited freedom, developed corruption in most countries and very often elderly heads of state in office for many years, in favor of hereditary transmission of power, the republican-style regimes included.

- **Social and economic conditions** - although they have a high education level, the young people from the Arab countries cannot find a proper job, because the region is struck by high unemployment rates. Paradoxically, the young people are the most affected by unemployment, 90% of the unemployed are aged between 15 and 29, and the net unemployment rate for this age group in the region ranges from 20 to 25%.

- **The protesters' non-violent actions and the role of the military during and after the riots** – the military attitude to the popular demands is essential in the riots' development. In Egypt and Tunisia, the army is neutral and detached from the state leadership, which will no longer have the force to suppress the demonstrations. The armed forces of other Arab countries are devoted to the dictators because of substantial or specific recruiting privileges (i.e., use of naturalized mercenaries, especially tribal recruitment of minority populations, etc.). When these measures are insufficient to defeat uprisings, foreign armed forces can support national military tasks of repression: e.g. Syrian Air Force in Libya, Saudi troops in Bahrain.

- **The role of the new information technology and communications** - one of the common aspects of the riots during the Arab Spring was the important role played by information technologies and communications. The development of these technologies allows for the streamlined flow of information among many users. Information technologies and communications have enabled the structuring and preparation of contesting movements.

- **The place of the Islam and women in the Arab riots** - as a general rule, the religious leaders have supported the regimes in power in the Arab world. Therefore, their influence was relatively low for the Arab Spring. In their turn, women, traditionally isolated, took an active part in the protests, even playing the role of leaders, and demanding more justice and freedom [4].

Following in our approach, we will discuss how the Arab Spring protesters have exploited the advantages of using information technology and communications to meet their aspirations. We will also highlight how governments have tried to counter the use of information technology and communications throughout the course of the Arab riots.

Information technology and communications in the Arab countries

In many countries in North Africa, severe limitations are imposed in areas such as press and television, as well as restrictions on the freedom of expression and the right to organize meetings. It is not an easy task to set up a publication in Libya, to organize campaigning for human rights in Algeria or a march in Bahrain. The Internet space is about the only space of expression for many groups or individuals who wish to exercise their right to freedom of expression, to participate in meetings and to form associations and groups sharing common interests.

Since 2004, Internet users in Arab countries have been able to use effectively online platforms for different causes. Thus, many taboo topics have been discussed, such as torture in police stations, sexual assault, religious minorities, and human rights violations by those in power, etc. Based on the statistics provided by the Dubai School of Government, in Table 1, we consider that the number of users of social platforms is not large compared to the population. However, there is some degree of complementarity between the organizations campaigning for human rights, the users of social platforms and offline media journalists. Journalists submit topics that cannot be published offline because of the censorship specific in the region, together with records and multimedia evidence, whereas bloggers can publish details of those cases in the social networks.

Table 1. Twitter and Facebook users (average at the beginning of 2011)

Country	Population	Twitter users	Facebook users
Algeria	35.953.989	13.235	1.947.900
Egypt	85.950.300	131.204	6.586.260
Libya	6.670.928	63.919	71.840
Morocco	32.770.852	17.384	3.203.440
Sudan	44.103.535	9.459	443.623
Tunisia	10.476.355	35.746	2.356.520

Recent protests and riots in Tunisia and Egypt were surnamed "Twitter Revolutions" and "Facebook Revolutions", because the widespread use of messages with user generated content (UGC), which were disseminated by the protesters, activists and supporters of the protests, through the Internet, social networks like Twitter and Facebook or mobile phones.

The use of mobile phones, social networking and UGC in the Arab Spring protests is not unprecedented. Twitter has been used in Moldova and Iran protests,

in 2009, and in both cases some analysts called such movements Twitter revolutions [5]. The popular movement to remove President Joseph Estrada from the leadership of Philippines, in 2001, was called "the SMS Revolution", due the use of SMS text messages to mobilize protesters. It was described as the first change of government supported by modern communication technology [6].

However, we believe that labeling the Arab Spring riots as Twitter or Facebook revolutions is exaggerated, taken into consideration the given access to information technology and communications of the population of the states under analysis. In 2009, in Tunisia and Egypt there were only 34.1, respectively 24.3 Internet users per 100 inhabitants. Analyzing the data presented in Table 2, we can conclude there is no significant correlation between the intensity of riots and the number of users of information technology and communications in these countries.

Table 2. Access to information technology and communications in Arab countries [7]

Country	Mobile phones subscriptions (per 100 inhabitants)	Estimated number of Internet users (per 100 inhabitants)	Broadband transmissions subscriptions (per 100 inhabitants)
Algeria	93,8	13,5	2,3
Bahrain	177,1	10,0	9,6
Egypt	66,7	24,3	1,3
Jordan	95,2	26,0	3,2
Libya	148,5	5,5	1,0
Morocco	79,1	41,3	1,5
Syria	45,6	20,4	0,2
Sudan	36,3	-	0,4
Tunisia	95,4	34,1	3,6

Also, users of social networking in the Arab countries represent only a minority of the population that is living in urban areas, has a steady income and a level of educational appropriate for the use of computers.

But we can say with certainty that many protesters have used messages with user generated content, social networking and SMS messages sent by mobile phones to express the popular dissatisfaction and claims during the Arab Spring. This fact has led to a better mobilization and coordination of the protesters, and a

reaction from the Arab states to limit or ban users' access to Internet and phone services.

The Arab states' reaction in cyberspace and against its users during the Arab Spring riots

The cyberspace is frequently used to expose human rights violations that governments strive to keep hidden. The video clips published online that proved the violence of forces loyal to the Arab governments created, in time, a powerful wave of resistance among social platforms. It is the case of the video clips that revealed corruption of the police in Morocco and torture in police stations and violence in Egypt. During the revolt in Tunisia, particularly cyberspace and blogosphere were almost the only sources of information, circulating photographs and video images of street fighting. Transmission of UGC has become almost an act of conduct for reporting news from the events that took place as the conventional media could not have access or necessary means. Blogging and sharing photos and videos via mobile phones have become the major sources of dissemination and consumption of news about the protests in the streets. The relationship between UGC and mobile phones was an important tool for protesters in their approach to inform the world on their claims, events that marked the protests and the response nature of the police, military or civilian forces. In Syria, where the access of the international journalists was almost completely restricted, video transmission via mobile phones became one of the few ways of reporting the situation.

These realities determined complex reactions in the cyberspace from the Arab states. Some governments even used filters to block the Internet content of messages during the protests. In Tunisia, Egypt, Libya and Syria, transmission of UGC and even Internet traffic were blocked by disconnecting the supply service of the Internet connection or drastic slowing of the data transmission speed [8]. The Mubarak regime closed almost completely all providing services of Internet and communications, from the night of 27/28 January until February 5, 2011 (see Figure 1). In Libya, the Internet was blocked for most of the Libyans, since the very beginning of the protests, in areas controlled by Gaddafi. In Tunisia, the Ben Ali regime stole user names and passwords on Facebook, Twitter and e-mail accounts, by the introduction of Java scripts in the content pages of these sites before they reached the users.

Twitter and Facebook social networking platforms have been used by intelligence and security agencies to identify and locate activists and protesters. In Northern Sudan, where groups of users of Facebook have announced protests against the regime, the

government has monitored actively, all the social websites. When the protests started, many potential protesters, social network users, were arrested.
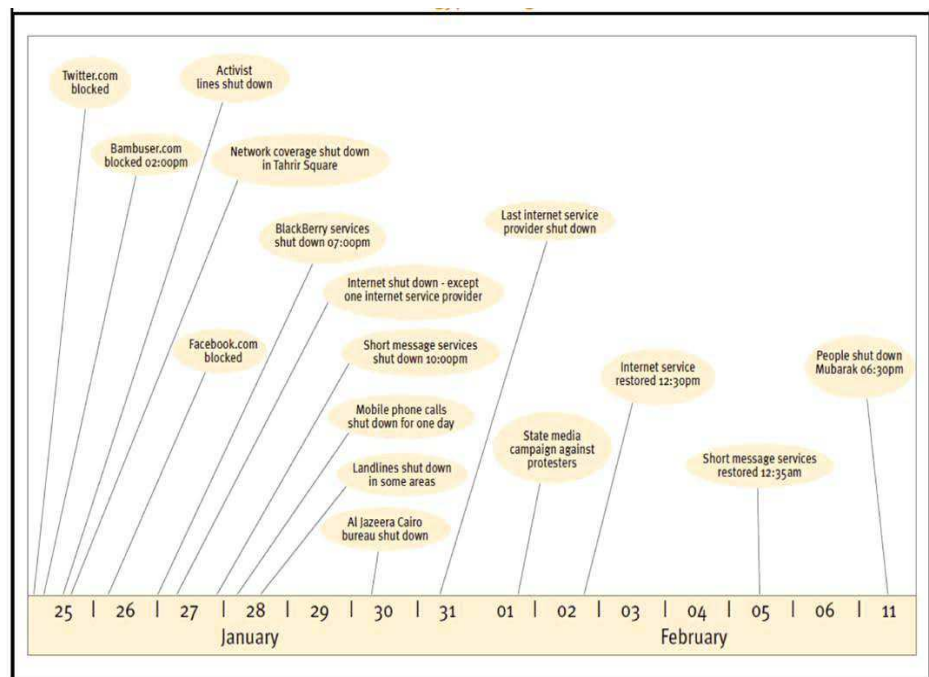

Figure 1. The diagram of measures adopted in cyberspace by the Egyptian Government [9]

Conclusions

Internet social networks, user generated content messages or communications by mobile phones are not infallible instruments for the benefit of protesters, but rather part of a contested terrain, used both by the protest movements in societal conflicts and transitions and the governments. Social networking sites like Twitter and Facebook can be used to spy on protesters, to find their real identity and perform arrests and detentions.

As recently noted by Julian Assange, the founder of Wikileaks, the Internet is not only a force for transparency and openness, but also the biggest intelligence machine that the world has ever seen [10]. Social networking platforms often correlate an online identity with the real name, city of residence, occupation,

interests, photos and network of friends of the user, providing many opportunities for surveillance.

The information from social networks can be explored through secondary applications or by ad providers. The application of programming interface to Facebook, which is a language or set of commands for finding information on Facebook, is accessible to everyone who makes their user account into an account of the developer. We also have the example of the British company Gamma International Group which provided, in 2009, a software security application to the State Security Service in Egypt. This was described as a high-level security system, whose capabilities ensured breaking personal accounts on Skype, breaking e-mail accounts associated with Hotmail, Yahoo and Gmail, as well as complete control of the target computers, respectively recording the audio and video chat, recording the nearby activity and copying the content of controlled computers.

We consider that the Twitter and Facebook platforms and mobile phone applications providing a function of geo-location, which can further provide information about the user location. The position of a mobile phone can be tracked by mobile phone operators and consequently by the government or third parties. In some circumstances, mobile Internet use can increase the surveillance capabilities of repressive regimes.

In our opinion, information technologies and communications were during the Arab Spring riots a propagation environment for the popular dissatisfactions and claims, complementary to the offline media and tools to mobilize and coordinate the actions of protesters.

NOTES

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