Social movements and network analysis

The case of Tunisia digital activism before and during the Arab Spring (2010-2011)

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A mis padres y hermano

Guían mis manos sus manos fuertes. Hacia el futuro, hasta la victoria siempre.

A Isabel y Paloma

Sabéis que aunque esté lejos siempre hay un tren que desemboca en Madrid.

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Porque la verdadera revolución será feminista o no será.
Por que fueron somos. Porque somos, serán.

Nuestras clases dominantes han procurado siempre que los trabajadores no tengan historia, no tengan doctrina, no tengan héroes y mártires. Cada lucha debe empezar de nuevo, separada de las luchas anteriores: la experiencia colectiva se pierde, las lecciones se olvidan. La historia parece así como propiedad privada cuyos dueños son los dueños de todas las otras cosas.

El pueblo aprendió que estaba solo... El pueblo aprendió que estaba solo y que debía pelear por sí mismo y que de su propia entraña sacaría los medios, el silencio, la astucia y la fuerza.

-Rodolfo Walsh

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Abstract

This thesis aims to bridge social movement studies with media and communication studies, taking the case study of the Arab Spring in Tunisia and combining quantitative and qualitative approach. Methodologically, this thesis integrates social network analysis with qualitative content analysis and semi-structured interviews. The main objective is to give an account Tunisia's digital network before and during the Arab Spring, along with its relationship with the social movement that characterized the Arab Spring in Tunisia. Overall, our research has identified a series of dynamics which determine the patterns of diffusion of information through digital networks. Our findings demonstrate that this networks tends to be highly participatory, but that it is also hierarchical, showing a power-law distribution. Nevertheless, this type of power distribution allows much information to spread quickly and reach a wide audience. Moreover, our study shows that the combination of online and offline networks was essential for the success of the Tunisian uprising.

Resumen

Esta tesis tiene el objetivo de proporcionar un puente entre las disciplinas de sociología y comunicación. Tomando como estudio de caso la primavera árabe en Túnez, esta investigación combina el enfoque cuantitativo y cualitativo.
Metodológicamente en esta tesis se lleva a cabo un análisis de redes sociales, combinándolo con análisis de contenido cuantitativo y entrevistas semiestructuradas. El objetico principal es el de dar cuenta de la red digital de Túnez antes y durante la primavera árabe. En general, los resultados han identificado una serie de dinámicas que determinan los patrones de difusión de información a través de redes digitales. Nuestros resultados demuestran que estas redes tienden a ser más participativas, pero también jerárquicas. Esta estructura permite difundir más información en menor tiempo y llegar a un público más amplio. Por otra parte, nuestro estudio ha demostrado, además, que en nuestro caso de estudio resultó esencial la combinación de redes digitales y personales para el éxito de la primavera árabe en Túnez.

Preface

One of the reasons I wrote a PhD thesis about the Arab Spring in Tunisia is the importance that this uprising had for me. I was born in 1987, and I have completed my studies in different public schools and universities. I am very fortunate, because I belong, I think, to the last generation who could complete studies with public grants, and not only to complete a degree but also for language courses and, even, for study abroad.

This point, my studies outside of Spain, is another important one to raise in this preface, since it is one of a number of circumstances that formed its foundation. I spent six months in Argentina. I lived in Buenos Aires, but I went to Universidad Nacional de Quilmes, a public university in the city of Quilmes, a thirty-minute bus ride from Buenos Aires. Here, I suddenly discovered a type of university at which politics and social issues were important. I remember the great demonstration concerning audiovisual law, for instance. But what was more important for me was to know the fight of the Mothers of the Plaza de Mayo. On 19 August 2010, Estela de Carlotto, maybe the most important activist among the movement, received an honorary doctorate from Universidad Nacional de Quilmes. I attended the ceremony and heard Estela speak about her fight. Listening to Estela talked about the kidnapping and murder of her daughter, Laura Estela Carlotto, was very impressive for me and I realised about the importance of social movements in our societies.

Meanwhile in Spain, apparently, everything worked well until 2010. I was in Argentina then, when the crisis started, so I not fully unaware of what the crisis meant for Spaniards until I returned to Spain in late 2010. Suddenly, I was a young girl

with a communications degree but without job, and without hope of finding a job. And I was seeing how the Spanish government started with the cuts and the precariat became the common class among young people. These cuts also had a profound effect on the public services people received, especially in our public education system and the Spanish public health system. So, in some way, the cuts directly effected my whole life. But the position of the precariat was not only my problem: it was the problem of my brother, my friends, my cousins, and so on. It was the problem of my generation.

With this problem as a backdrop, in late 2010 I started hearing about a revolution in Tunisia, but I did not give it much attention at first. And then, in the middle of 2011, emerged the *Indignados* movement in Spain. Although I did not participate actively in that movement, it was very important for me. I was in Madrid then, and I saw young people in Sol Square. I thought that maybe something had changed. After a year working in a precarious job, which had no relation to my academic background, I decided in 2011 to give a twist to my life, and thanks to my savings and a grant from the Spanish Education Ministry for master's studies,[1] I started my master's degree in Barcelona, at the Universitat Pompeu Fabra.

All of the above circumstances came together to form the starting point of this thesis. I am sure that if Alberto Melucci had spoken about my thesis, he would refer to these circumstances as the latency phase of my thesis.

Following to Melucci, the visible phase of the work started with

[1] I think this was the last time that the Spanish Ministry of Education offered this grant for master studies. As I have said previously, I feel myself fortunate.

my master's degree. I knew that I wanted to research something related with social movements and the recent protests, but I did not know exactly what. In that sense, I would like to say that the course of the research was sourced fundamentally from advice which Javier Díaz-Noci, my supervisor, gave me in order to focus my study. Javier started this journey with me at its beginning, five years ago. He was both my master's supervisor and my PhD supervisor. For me, his company over the years has been fundamental in order developing the research.

Maybe in that moment (September 2011), the easier topic of study would have been the *Indignados* movement, because it was happening in Spain; but, as I have said above, although it may seem contradictory, I decided to study the Tunisian uprising. Tunisia was the first country in which the 2010–2011 wave of protests rose, and for the first time, an Arab country had taken up social issues with respect to Western countries. Tunisian activists showed others the power of social media to mobilise.[2] I don't know whether, without the Tunisian uprising, the *Indignados* movement would have arisen, for instance. Another reason I chose this particular topic was that the study of the Tunisian uprising allowed me distance from the object of study. Of course, it was a challenge, because the context of the country was very different, but I like the challenges. Furthermore, I have my own opinions and sentiments concerning the *Indignados* movement because, as I have noted, it was very important for me as a Spanish youth, and these reasons might have impacted the research.

This research informed me about realities that I did not

[2] Previous movements, such as the global justice movement, for instance, had used the internet to mobilize. The difference is mainly that the previous movement used, e.g., the mailing list, a closed system, but social media allows one to reach a wider audience due to its public accessibility.

previously know. One of the most important things for me, personally, was my trip to Tunisia for the work I did on the ground. I remember, especially, dining one night in Tunisia with a young girl, a Tunisian activist, in a restaurant in Tunis. We talked about the Tunisian uprising, of course, but we were talked also of the *Indignados* movement, the political situations in Spain and Tunisia, and so on. I remember especially one conversation about the Tunisian and Spanish transitions. After dinner we went to a Tunisian café, and we talked about the transitional process in Tunisia and the transitional process that started in Spain in late 1970s after the Francoism Regime. I remember her enthusiasm in explaining the Tunisian Constitution and how Tunisians now know that they have rights, along with how people in Tunisia have started to become aware of some events that took place in Tunisia under Ben Ali's rule, for instance the strike in Gafsa in 2008. But she also had fears. Overall, she worried about terrorism in Tunisia. I remembered some identical conversations, with other names and other places: These experiences, hopes and fears resembled the same experiences, hopes, and fears that I had listened many times at my parents about the Francoist regime and the Spanish transition.

Laura Pérez Altable

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Preliminary notes

Chapter 5 in this dissertation has been illustrated with numerous examples of tweets, images and screenshots of videos that Tunisian activists shared on Twitter. However, with the aim of facilitating the understanding of the content of this dissertation, I have created an online dataset that contains the whole collection of tweets. The dataset is divided into two:

- Data from Section 5.1, 'Digital activism in Tunisia before the Arab Spring' are available here: https://dx.doi.org/10.6084/m9.figshare.3502664.v1

- Data from Section 5.2 'Digital activism in Tunisia during the Arab Spring' are available here: https://dx.doi.org/10.6084/m9.figshare.3502670.v1

From September 2015 through December 2015, I had a pre-doctoral stay at the Mitchell Centre for Social Network Analysis at the University of Manchester. During my stay I worked on my thesis under the supervision of Doctor Elisa Bellotti.

Finally, I would like to note that some parts of this dissertation have been published previously: namely, parts of Section 5.2, 'Digital activism in Tunisia before the Arab Spring' appeared in 'The Arab Spring before the Arab Spring: A case study of digital activism in Tunisia', a paper presented in the peer-reviewed journal *Global Media Journal (Arabian Edition),* Fall/Spring 2015–2016, Vol. 4, 1–2, pp. 19–32.

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Abbreviations

ATI	Agence Tunisienne d'Internet (Tunisian Internet Agency)
BCT	Banque Central de Tunisie (Central Bank of Tunisia)
BTS	Banque Tunisienne de Solidarité (Tunisian Solidarity Bank)
DT	Tunisian Dinar
FSN	Fonds de Solidarité Nationale (National Solidarity Fund)
GJM	Global Justice Movement
ICT	Information and Communication Technologies
IMF	International Monetary Fund
MENA	Middle East & North Africa
MTI	Mouvement de la Tendence Islamique (Islamic Tendency Movement)
PPT	Put People First
PSD	Partit Socialiste Dusturien (Dustur Socialist Party)
RCD	Rassemblement Constitutionnel Démocratique (Democratic Constitutional Rally)
SNA	Social network analysis
WJP	The World Justice Project
WUNC	Worthy, unified, numerous, and committed

CHAPTER 1

Introduction

$$\Delta x \Delta p \geq \frac{h}{2}$$

The act of observing alters the reality being observed.

Heisenberg Uncertainty Principle

1.1 Topic of the research and identification of the research problem

This thesis focusses on the study of activism in Tunisia before and during the Arab Spring. The use of social media is understood in this dissertation as a powerful tool to mobilise and organise protests, but we think that, effectively, uprisings and revolutions are certainly possible without the use of digital media, because history provides many cases in which revolutions and protests have been organised without digital media. In that sense, Robert Darnton (2000) published an article called 'An Early Information Society News and the Media in Eighteenth Century Paris'. The main argument of Darnton's paper is that 'every age was an age of information, each in its own way, and that communication systems always have shaped events' (2000, p. 1). He analyses the information flow during the Old Regime in Paris around 1750. In the Eighteenth Century in

the French Capital newspapers about public affairs and social issues did not exist, at least not as we understand them today: The Regime did not permit them. In spite of this ban, though, news about politics and public affairs circulated among Parisians. In many cases, the information was transmitted by the word of mouth or through clandestine gazettes. Figure 1 presents a model of a communication circuit in pre-revolutionary Paris (around 1750) proposed by Darnton:

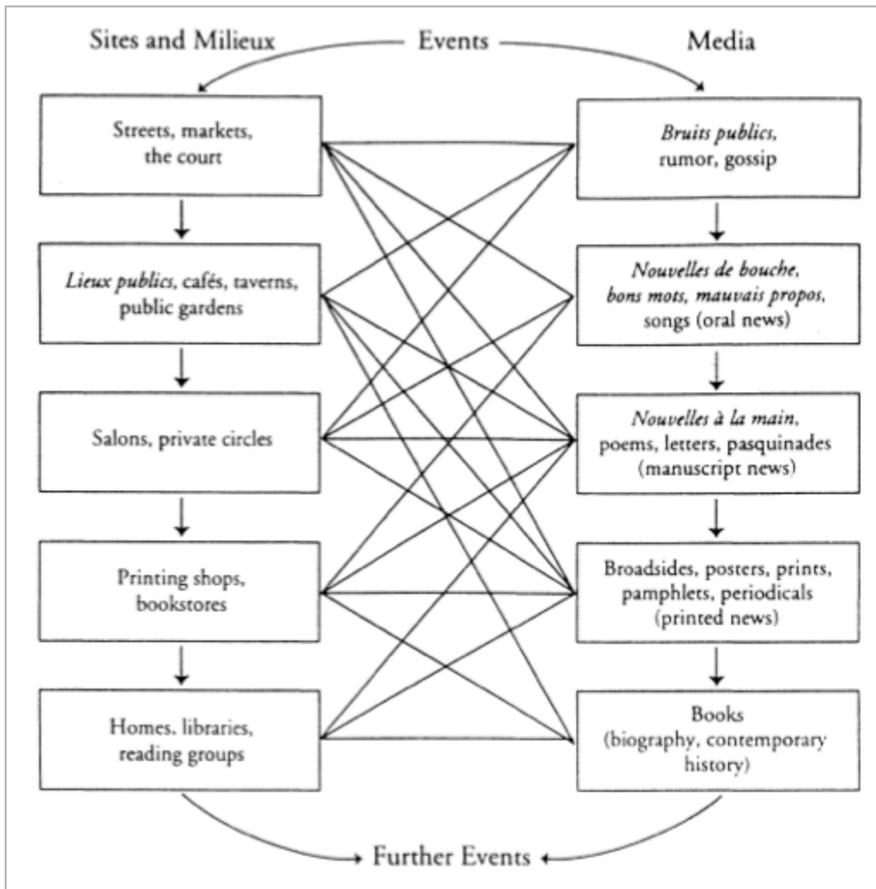

Figure 1. Communication circuit in Paris around 1750. Source: 'An Early Information Society News and the media in Eighteenth Century Paris'. (Darnton, 2000, p. 8)

One conclusion that can be drawn from this model is that Parisians used different tools to spread information, aside from the official journals which possessed royal privileges for the coverage of certain subjects ibidem). We can identify a parallelism between this model of communication circuit and the emergence of the Internet and social media in the 21st century. Many times, social media spreads relevant information apart from the official sources. Related to our case study, on 28 December 2010 the ex-president Ben Ali visited Mohammed Bouazizi in the hospital, where he was hospitalise since he set himself on fire on 17 December 2010. The official presidential agency took a picture of Ben Ali with the doctors and a bandaged body, who it seemed was Bouazizi, and distributed it on national and international media outlets. Ben Ali tried to show that all was right. But activists on social media showed videos or photos suggesting the opposite, as we will see in Chapter 5. The difference is that while in Old Regime Paris information was spread through very close systems (maybe only among the urban elite), social media allows one to reach more people and is a more open system: Everyone with Internet access can follow the updates and share information about a particular event.

It is not necessary look far to find examples of activism or social unrest without Internet. In fact, recently, we have the example of Yemen. According to Internet World Stats,[1] the index of Internet penetration in Yemen in 2012 was about 15%, so the majority of Yemenis did not have Internet connection when the Yemeni revolution took place in 2011, just after the Tunisian revolution and at the same time as the Egyptian revolution. On 27 February 2012, the regime of Ali Abdullah Saleh toppled

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[1] Source: http://www.Internetworldstats.com/me/ye.htm [last accessed April 2016]

after 33 years in power. People in Yemen took to the street to protest unemployment, economic conditions and corruption, in the same way that Tunisians had. The main difference, though, was that in Yemen protest was organised without digital media.

The example of the revolution in Yemen shows us that uprisings and revolutions are certainly possible without the use of digital media. Finally, the use of digital media depends of the context. What is hard to explain without the presence of digital media and Internet infrastructure is the speed and the breadth of the revolution. The following is a perfect illustration of this relative haste: The Tunisian uprising started on 17 December 2010 and the regime of Ben Ali fell on 14 January 2011 (just under a month), while the Yemeni revolution started on 27 January 2011 and the Saleh regime toppled on 27 February 2012 (13 months). This comparative timeline demonstrates to us that digital media is a powerful tool but that, in the last instance, it is the people who make the revolution and topple regimes. As Darnton insightfully states, every age is an age of information in its own way, and nowadays, we live in the digital age.

1.2 Context of the case study

On 17 December, 2010, Mohammed Bouazizi, a fruit vendor from Sidi Bouzid (one of the poorest areas of Tunisia, with high rate of unemployment) set himself on fire in front of a public building. After his self-immolation, riots quickly spread first in Sidi Bouzid and, a few days after Bouazizi's extreme act, across Tunisia; after 27 days of protest, the former president Zine al-'Abidine Ben 'Ali left the country and fled to Saudi Arabia with his family. As Merlyna Lim (2013) points out, the origins of the 2010–2011 uprising have at least two historical precedents: the struggles of

the working class and long-established online activism. While the claims of the working-class focus on the economic and social situation of Tunisia under the Regime of Ben Ali, when the unemployment rate was very high, as we will explain in more detail in Chapter 4, Section 4.2, the demands of online activism focus on censorship, democracy, and human rights. The two shared common concerns: both were critical of the issues of corruption and the use of violence by part of Ben Ali's government. But despite this corruption, they rarely united on issues of mobilisation (ibidem).

Laryssa Chomiak (2011) points out that under Ben Ali's regime explicit forms of contestation challenged the state in Tunisia, but in a limited way because of state repression. Furthermore, the state intensified repression with measures ranging from arbitrary economic barriers to jailing, disappearances, and torture—alienating Tunisians from participation in formal politics (ibidem). In 2008, pervasive frustration and outrage over the government's inability to come to grips with concerns that were, by then, nearly universal among Tunisians took a decidedly confrontational turn in the mining area of Gafsa[2] basin (Perkins, 2014). The protest started when the state-owned company *Gafsa Phosphate Company*, the largest employer in the region, announced the result of a recruitment competition for relatively well-paying, but primarily unskilled, jobs. Protesters charged that the company had deliberately discriminated against qualified applicants, including some whose families had long worked for it and even had relatives who had been killed in mines accidents, in order to award prized jobs to less deserving but better connected candidates (ibidem). For Tunisians, who were accustomed to corruption, nepotism, and bribery as requirements for survival, this

[2] See Appendix 1

situation could not have been surprising. According to Kenneth Perkins (2014), a popular committee formed by workers and sympathetic union officials attempted to defuse the crisis through negotiations but made no headway in changing the ideas of the company.

Marginalised populations, who were outside of the system in economic and social terms, drove the protests. It started on 5 January in Redeyef, and from this city the protests spread to other large mining towns (Gobe, 2010). The original aspect of this mining-based movement, within the Tunisian context, was the large number of repertoires of action used by the protester: demonstrations, classic hunger strikes, and sit-ins at public locations (Gobe, 2010). These protests culminated in a loosely organised social movement across the Gafsa Region, rebelling against unemployment, social injustice, repression, and neglect on part of Ben Ali regime (Chomiak, 2011). The demands involved in the protests revolved around the fight against unemployment and precariousness. The waves of protest also caught the attention of university students on campuses in Tunis, Sfax and Sousse, as well as among the diaspora in France or Montréal (Chomiak & Entelis, 2011). Many of the supporters were members of the illegal Workers' Communist Party or its student wing (Gobe, 2010; Chomiak & Entelis, 2011). In this context, unemployed graduates were the instigators of the mobilisations. In March 2007, dozens of unemployment graduates of Tunis University decided to form the Union of Unemployed Graduates, which was not recognised by the authorities but was tolerated by Ben Ali's regime. The goal of this association was to denounce the precariousness of their conditions (Gobe, 2010). Since then, this association has brought about the formation of regional and local committees of unemployed graduates in Tunisia's main urban centres, for

example in Gafsa. In fact, it was the local committee of the defense of the unemployed in Redeyef which kicked off the protest movement. Regarding the episodes that took place in January 2008 in this area, they contributed to the continuation of the mobilisations which they partially supported, with the help of certain trade union leaders in Redeyef. These leaders formed a negotiation committee aimed at formalizing and legitimizing the various demands (ibidem).

One of the main points that should be noted about this particular movement is that there was no diffusion of the conflict from one site to another. There was a local protest movement, but it was unable to alter its scale (Gobe, 2010). The government physically blocked any journalists from accessing the region and successfully controlled media reporting of the event (Lim, 2013). Thus, the weekly protests in Redeyef were not covered in Tunisia by the state-controlled press, and only the oppositional newspapers *Al-Maukif, Al Moutain and Al-Tariq Al-Jedid* regularly reported what was happening (Chomiak, 2011; Chomiak & Entelis, 2011). Activists worked around the state media by using independent guerrilla channels, such as homemade video CDs, to broadcast the revolt, and they posted these homemade videos on Facebook, Vimeo and YouTube with the help of a number of Tunisians abroad (Lim, 2013). As Lim (2013) explains, these videos did not gain much popularity, however. The digital activism around the Gafsa revolt was very limited, as we can see from the data presented in Figure 2. This number is very low in relation to the number of posts devoted to the topics of censorship and Ben Ali and, as we can see, only during the period of June 2008 appeared five post related to Gafsa events.

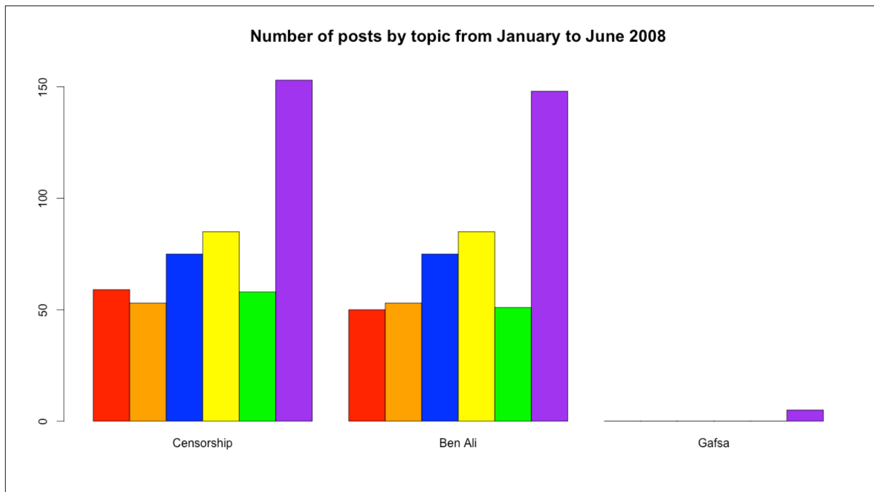

Figure 2. 'Censorship', 'Ben Ali', and 'Gafsa' related blog posts in top 56 Tunisian political blogs (January–June 2008). Source: Lim, 2013, p. 925. Color code represents the months, from Jan. 2008 to Jun. 2008.

Following with Lim (ibidem), the social and economic disparities between interior regions (such as Gafsa or Redeyef) and coastal regions were one of the causes of the isolation of the revolt. Economic development has long been concentrated in coastal regions, while interior regions have been isolated from economic activities, not only because of their distance from the coastal cities and the capital, Tunis, but also, and most importantly, because of a lack of transportation and information networks (2, 2012). These differences made difficult the construction of national solidarity, and local grievances were rarely diffused nationally.

According with the Gafsa story, what bars the emergence of a national populist movement is not the lack of activism. Although online and offline activism were fragmented, the state's repression, the control of the media, the geographical distance, and the class divides made this disconnect even greater (Lim, 2013).

1.3 Research questions and objectives of the research

Taking into consideration the context of our case study, this dissertation relies on three research questions. The following research questions address the attempt to bridge the gap between social movement studies and media and communication studies with the example of Arab Spring in Tunisia:

RQ1: How was information diffused in Twitter before and during the Arab Spring in Tunisia?

RQ2: How was the activist network built on Twitter before and during the Arab Spring in Tunisia?

RQ3: How were the frames and ideas presented on Twitter before and during the Arab Spring in Tunisia?

The main objective of this thesis is to explore the use of digital networks, specifically Twitter, after and during the 2010–2011 Tunisian's uprising. To be specific, the sub-objectives of this research have been as follows:

(1) giving an account of the diffusion process on Twitter before and during the 2010–2011 uprising in Tunisia,

(2) identifying the information flow and the central nodes that controlled the information in Twitter,

(3) discerning the moments, leading figures and ideas presented, and

(4) understanding who was using which symbols and frames of interpretation recurrently.

1.4 Structure of the dissertation

This dissertation is divided into six main chapters. The second Chapter aims is to offer a proper basis for conceptualising these processes, providing the theoretical foundation of our research, and this basis consists of theories from social movement studies undertaken from a sociological perspective, along with media and communication studies. In Section 2.1 we illustrate the main concepts that have been employed in this thesis. We start with an overview of the classic approaches, namely collective behaviour theory, resource mobilisation, political process, and new social movements. We therefore conceptualise the relation between social movements and network analysis, focus on the processes of diffusion, framing, and the construction of the collective identity through the networks of a movement.
Section 2.2 offers the reader an overview of the theoretical framework that is the foundation of this dissertation, placing the context of the research within the more general relationship between studies of social movements and communication and media studies. This interdisciplinary approach allows us to broaden the understanding of how social media has been used by recent movements, with specific attention to digital activism in Tunisia in 2010 and early 2011, that is, before and during the so-called Arab Spring in Tunisia. In doing so, in this section we integrate the concept of mediation within the field of social movements studies, considering the shift from collective action, characteristic of the social movements in the 21th Century, to connective action. Moreover, the approach of our theoretical framework is based on the critical perspectives on social media and protest; because the aim is to avoid any form of technological determinism.

The third chapter explains the methodological approach used in this dissertation for the collection and the analysis of the data. Attention will be devoted to explaining the relevant concepts used for investigative purposes. As a case study, the study relies in different methods, namely social network analysis, qualitative content analysis, and semi-structured interviews.

Chapter 4 will help the reader understand the factors that have contributed to the rise of the Arab Spring in Tunisia. This Chapter focus, in Section 4.1, on the wave of current social movements that have appeared since 2010 in different places around the world and the common feature of these movements: the struggle against the neoliberal system. Section 4.2 focus in more detailed in the Tunisia's case under the ruling of ex-President Ben Ali and the opportunity structures, such us, youth unemployment, censorship or corruption that allowed the rise of the uprising. The aim of this section is to provide a background to the social, political and economic situation in Tunisia before the uprising started

Once the theoretical and methodological foundations of this research are established, Chapter 5 presents the results of the empirical analysis. Section 5.1 focus on the digital activism in Tunisia before the Arab Spring, and Section 5.2 focus on the Tunisian digital activism during the Arab Spring, that is, between 17 December 2010, when Mohamed Bouazizi set himself on fire and the protests sparked around Tunisia, until 14 January 2011, when Ben Ali left the country and the transitional process started. Both sections present the results into two interconnected stages; first, the quantitative results, that is, the results provided by the social network analysis, and, then, the qualitative results, which come from qualitative content analysis and semi-structured interviews.

Finally, Chapter 5 will provide a final discussion and conclusion of our analysis. The objective is to address the importance of the hierarchical networks within the social movements, where the information can be spread in a more efficient way than in a horizontal networks. Also, as our findings show, for the success of a protest is essential the maintenance of online and offline networks. As a way of conclusion, following to the discussion and conclusion chapter, we have added a coda with some reflections that have emerged during the process of writing this thesis.

Last but not least, the reader will find two appendices to this dissertation. The first appendix is a political map of Tunisia. Because of during the dissertation we name some Tunisian cities, we have considered that a political map would be useful for the reader who are not familiar with the administrative distribution of Tunisia. Finally, in Appendix 2, the reader can find out the guide used during the conversations with the sampling of interviewees.

CHAPTER 2

Theoretical framework

2.1 Social Movement theories

Introduction

This section reviews theories of social movement, focussing on social networks, diffusion, the framing process, and collective-identity construction within the field of social movement studies. The aim of this chapter is to offer a proper basis for conceptualising these processes, which are the theoretical foundation of our research.

Section 2.1.2 reviews the definition of the term 'social movements' since the term was coined for first time by the Chicago School. Following Diani's seminal work 'The Concept of Social Movement' 1992, revisited in 2015a), we target resource mobilisation theory, along with the political process and new social movement traditions, the core traditional approaches.

Section 2.1.3 turns to social movements in relation to network analysis, the main topic of our thesis. An account of this relation

precedes a discussion of the three main concepts of social movements and network analysis, diffusion processes, framing processes and collective identity.

2.1.1 Defining social movements

This section reviews the definition of the term 'social movement'. Since the term was coined and defined, the concept of social movement has been studied extensively in a number of different ways by many scholars, depending on the purpose of their studies. In this section, we begin reviewing the initial accounts of the term 'collective behaviour' from Chicago School scholars (Parks, Blumer, and Turner and Killian) and the structural–functionalist approach of Smelser. Although these approaches have fallen out of favour in the most recent literature, we nevertheless seek in them some valuable insights useful for the purpose of understanding the concept of 'social movement'.

Then, we review the traditional social movement theories. Following Diani's work, we focus on three traditional approaches: resource mobilisation theory and the traditions of political process and the new social movement.

2.1.1.1 The Chicago School's approach: Collective behaviour theory

The Chicago School of Collective Behaviour was the dominant approach to social movements until the early 1970s. Among its many proponents were Robert E. Parks, Herbert Blumer or Ralph H. Turner and Lewis M. Killian (Morris and Herring, 1984, p. 11). The approach is rooted in symbolic interaction

theory (Turner, 1981, p. 6), one of the central propositions of which is that social order to which human actors respond is a symbolic order created as people interact through the use of symbols (Turner and Killian, 1987, p. 26). Symbolic interactionists focus on the processes by which actors continuously construct meaning through social interaction, which provides the basis for human action (Morris and Herring, 1984, p. 11). While collective behaviour analysis began with the assumption that societies consist of two coherent realms, institutionalised behaviour and collective behaviour, the theory of symbolic interactionism focusses on the second one.

Robert E. Park first used the expression 'collective behaviour' in 1921. Park defined collective behaviour as

> […] the behaviour of individuals under the influence of an impulse that is common and collective, an impulse, in other worlds, that is product of social interaction. (Cited in McPhail, 1989, p. 406)

Like Park, Blumer was an American sociologist primarily interested in small group interaction (Locher, 2002, p. 18). Both Blumer and Park considered that, in one sense, all group activity can be thought of as collective behaviour (McPhail, 1989, p. 408). The phenomenon of collective behaviour occurs, according to Blumer, because 'people have common understanding and expectations' (Blumer, 1939, p. 168). In addition, Blumer suggested that collective behaviour is concerned with studying the ways by which the social order comes into existence, in the sense of emergence and solidification of new forms of collective behaviour (Blumer, 1969, p. 69). According to Blumer,

> Sociology is interested in studying the social order and its constituents (customs, rules, institutions, etc.) as they are;

> collective behaviour is concerned with studying the ways in which the social order comes into existence, in the sense of the emergence and solidification of new forms of collective behaviour. (Blumer, 1969, p. 69)

An interesting point of Blumer's definition concerns social order. For Blumer, the social world is collective behaviour. He argues that social problems are products of a process of collective definition (Blumer, 1971, p. 298). In this way, a social problem exists primarily in terms of how it is defined and conceived in a society. The collective definition is responsible for the emergence of social problems. Moreover, the process of collective definition determines the trajectory and outcome of social problems, from the initial point of their appearance to their terminus (Blumer, 1971, p. 301). As Gemma Edwards has pointed out, Blumer's approach comes from his symbolic interactionist perspective: instead of assuming the existence of an automatic relationship between people's experience of adverse social circumstances and their participation in protests, Blumer's definition attends to the active process of interpretation and the definition that people engage in with others (Edwards, 2014, p. 29).

Social movements, Blumer argues, emerge out of a condition of 'unrest'. As he points out,

> in its beginning, a social movement is amorphous, poorly organised, and without form, the collective behaviour is on a primitive level […] As a social movement develops, it takes on the character of society. It acquires organisation and form, a body of customs and traditions, established leadership, an enduring division of labour, social rules and social values—in short […] new scheme of life. (Blumer, 1969, p. 99)

According to Crossley (2002, p. 38), Blumer's account is

important because he emphasises the idea that movements are made by the agents who are involved in them. They are products of the creative action of social agents. However, Bulmer's account lacks an account of the societal environmental in which movements and other forms of collective behaviour take shape.

Following Park and Blumer, Turner and Killian (1987/1957) define social movement as a particular kind of collective behaviour. The authors define collective behaviour as

> […] those forms of social behaviour in which usual conventions cease to guide social action and people collectively transcend, bypass, or subvert established institutional patterns and structures […] Collective behaviour refers to the actions of collectivities, not to a type of individual behaviour. (Turner and Killian, 1987/1957, p. 3)

Finally, Turner and Killian define social movement as

> a collectivity acting with some continuity to promote or resist a change in the society or group of which it is a part. As a collectivity a movement is a group with indefinite and shifting membership and with leadership whose position is determined more by the informal response of adherents than by formal procedures for legitimizing authorities. (Turner and Killian, 1987, p. 223)

Turner and Killian, in the same line as Park and Blumer, attempted to account for the new definition enabling people to act collectively when the structure breaks. However they differed by arguing that collective behaviour is guided by a social structure (Morris and Herring, 1984, p. 14).

2.1.1.2 The structural-functionalist approach: Neil Smelser

Smelser's seminal work *Theory of Collective Behaviour* (1962) was a landmark publication in the field. According to Morris and Herring (1984), Smelser broke from the Chicago School in two ways. First, his aim was to analyse collective behaviour with a distinctively sociological approach (Smelser, 1962, p. IX), but furthermore he explicitly rejected the claim that collective behaviour and conventional behaviour constitute separate coherent realms of reality (Morris and Herring, 1984, p. 17). He argued that it is 'possible to use the same theoretical framework to analyse both conventional and collective behaviour' (Smelser, 1962, p. 23). Secondly, Smelser's theoretical framework differed from the Chicago approach. He was interested in identifying the specific structural conditions that make it possible to predict and explain the occurrence of specific forms of collective behaviour. Smelser developed a social-structural explanation derived from Talcott Parsons' general theory of social action (Turner and Killian, 1987, p. 5). In that sense, Parson conceived the theory of social action as 'a conceptual scheme for the analysis of the behaviour of living organism. It conceives of this behaviour to the attainment of ends in situations, by means of the normatively regulated expenditure energy' (Parsons and Shils, 1951, p.53).

Smelser defines collective behaviour as 'a mobilization on the basis of a belief which redefines social order' (Smelser, 1962, p. 8). As della Porta and Diani have pointed out, the definition of 'collective behaviour' proposed by Smelser has a double meaning. On one hand, it reflects the inability of institutions and social control mechanisms to reproduce social cohesion; on the other, it suggests attempts by society to react to crisis

situations through the development of shared beliefs on which to base new foundations for collective solidarity (della Porta and Diani, 2006, p. 7).

Smelser thinks that collective behaviour can be explained and predicted using his six determinants value-added model (Smelser, 1962). The term 'value-added' is borrowed from the field of economics and refers to the idea that each step toward a finished product adds value to the resource (Locher, 2002, p. 42). These six determinants are as follows (Smelser, 1962, pp. 14–17):

1. '*Structural conduciveness* refers to any factors in the social or physical environment that make collective behaviour possible. This determinant creates the conditions that make collective behaviour possible, but cannot by itself cause an episode to occur.

2. *'Structural strain'* is a term that relates to how collective behaviour is unusual behaviour. Smelser argues that this unusual behaviour is led by social factors. Thus, structural strain drives participants engage in such unusual behaviour. Strain alone cannot cause the event, but if the strain is compatible with the structural conduciveness, the episode becomes more likely to occur.

3. *'Generalised beliefs* are formed in the crucial next step. Potential actors must come to share a definition of the situation. This generalised belief makes the behaviour seem appropriate to the participants. The growth and spread of a shared belief is crucial for a collective episode because this belief determines what the participant will do next.

4. *Precipitating factors* are those events which provide a concrete setting toward collective action can be directed. Structural conduciveness, strain and a generalised belief do not

by themselves produce an episode of collective behaviour. These general determinants establish a predisposition to flight, but it is usually a specific event which sets the flight in motion.

5. *Mobilisation and participation* mark the last necessary condition of collective behaviour: bringing the affected group into action. In this process of mobilisation the behaviour of leaders is extremely important.

6. *Social control* is more a counter-determinant which prevents, interrupts, deflects or inhibit the accumulation of the determinants just reviewed. There are two types of social control: (a) social controls which minimalise conduciveness and strain, thereby preventing the collective behaviour; and (b) social control mobilised only after a collective episode has begun to materialise.

The type of beliefs that agents form and communicate between themselves spark a chain reaction and decide the type of action which follows (Crossley, 2002, p. 46). Symbols also indicate the implementation of the situation and what is to be done about it, and help to clarify the claim of legitimacy for a given line of action (Turner and Killian, 1987, p. 64). As Smelser has pointed out 'generalized beliefs restructure an ambiguous situation in a shot-circuited way … Short-circuiting involves the jump from an extremely high level of generality to specific, concrete situations' (1962, p. 82).

Generalised beliefs prepare individuals for collective action. According to William A. Gamson, a generalised belief 'is a myth by which people mobilise' (Gamson, 1975, p. 132). It creates a common culture within which leadership, mobilisation, and concerted action can take place (ibidem, 1962). In a system made up of balanced subsystems, collective behaviour reveals tensions which homeostatic rebalancing mechanisms cannot

absorb in the short term (della Porta and Diani, 2006, p. 7).

As Crossley has pointed out, Smelser's approach attends to the structural factors which Blumer ignores and provides us a much more useful framework for considering the contexts out of which movements emerge and take shape (Crossley, 2002, p. 53). Smelser's contribution was a major attempt to connect in an integrated model different processes that would have later been treated disparately, and to establish social movement analysis in the framework of general sociology (della Porta and Diani, 2006, p. 8; Crossley, 2002, pp. 53–55). As Crossley has noted, Smelser has an important contribution to make to modern movement theorizing, which constitutes a possible starting point for a reflection upon these issues (Crossley, 2002, p. 39). Importantly, Smelser focusses on the external factors which shape social movements, contrary to Blumer's account, as we have noted above.

2.1.1.3 Resource mobilization, political process and new social movement

While the collective behaviour perspective responded to the dominant worldview of the 1950s, the generalised social upheaval in 1960s America seemed to demand a change of attitude towards social movements (Kavada, 2007, p. 40). In this sense, the resource mobilization, political process and the new social movements traditions constitute the core of the traditional social movement theory since 1960s (Diani, 1992, p. 3; Coretti, 2014, p. 50). Whereas the first two have been particularly influential in the United States, the third has been mainly associated with European scholars (Diani, 1992, p. 3).

Resource mobilisation theory focusses on the role of structures

and organisational factors within social movements. These factors are the principal differences between resource mobilisation theory and related collective behaviour approaches (Diani, 1992, p. 4), and according to the supporters of this approach, they are essential for the survival of social movements (Zald and McCarthy, 1987; McAdam and Scott, 1985). Resource-mobilisation models emphasise the significance of organisational bases, resource accumulation, and collective coordination for popular political actors (McAdam, Tarrow and Tilly, 2004, p. 15).

As pointed out by McCarthy and Zald (1977, pp. 1217–1218), a 'social movement' is 'a set of opinions and beliefs in a population which represents preferences for changing some elements of the social structure and/or reward distribution of a society'. For any movement, they add, we may also find a counter-movement that consists of preferences or beliefs that oppose of a movement. The emphasis of this approach thus lies in the rationally strategic issues of mobilisation (Coretti, 2014, p. 50). Mobilisation is the process of increasing one's ability to act collectively by building the loyalty of a constituency to an organisation or to a group or leader (Gamson, 1975, p. 15). Thus, mobilisation is part of an organising process.

In order to mobilise politically, agents and groups require the resource to do so and they must mobilise those resources, that is, use them. By 'resources', Anthony Oberschall means '… anything from material resources—jobs, incomes, savings, and the right to material goods and services- to nonmaterial resources—authority, moral commitment, trust, friendship …' (Oberschall, 1973, p. 28). As della Porta and Diani affirm,

> These resources are distributed across multiple objectives according to a rational calculation of costs and benefits.

> Beyond the existence of tensions, mobilisation derives from the way in which social movements are able to organise discontent, reduce the cost of action, utilise and create solidarity networks, share incentives among members, and achieve external consensus. The type and nature of the resources available explain the tactical choices made by movements and the consequences of collective action on the social and political system (McCarthy and Zald, 1977; Edwards and McCarthy, 2004; della Porta and Diani, 2006, p. 15)

The definition of social movements as conscious actors making rational choices is among the most important innovations of resource mobilisation. Instead of focussing on organisational resources, Tilly (1978) relates the emergence of social movements to a broader 'political process' (Diani, 1992, p. 5). Tilly analyses this process from an historical perspective, periodising phases of intense contention within contemporary history and mapping shifts in the 'repertoires' of collective action (ibidem, 1992). According to Tilly, a social movement is

> A sustained series of interactions between power holders and persons successfully claiming to speak on behalf of a constituency lacking formal representation, in the course of which those persons make publicly visible demands for changes in the distribution or exercise of power, and back those demands with public demonstration support. (Tilly, 1984, p. 306, cited in Diani, 1992, p. 5)

Both resource mobilisation theory and the political process approach analyse the 'how' rather than the 'why' of social movements (Melucci, 1989, p. 18). As such, the political approach shares with resources mobilisation theory a rational

view of action, but the former pays more systematic attention to the political and institutional environment in which social movements operate. The central focus of 'political process' theories is the relationship between institutional political actors and protests (della Porta and Diani, 2006, p. 27).

In that sense, political process theory focuses, in one hand, on political opportunities which are external to the movement and, on the other hand, the political process theory also emphasises in an internal focus on mobilising structures and framing processes as means to facilitate the creation of networks and the circulation of information within these same networks, as necessary for collective action (Tilly, 1978; McAdam, McCarthy and Zald, 1996; Garrett, 2006). The concept which has had the greatest success in defining the properties of external environment, relevant to the development of social movements, is that of 'political opportunity structure' (della Porta and Diani, 2006, p. 27).

Opportunity structures are attributes of a social system that facilitate or constrain movement activity (Garret, 2006, p. 212). The term refers to the conditions in the environment that favour social movement activity, and include factors such as the relative accessibility of the political system, the stable or fragmented alignments among elites, the presence of elite allies, and the state's capacity and propensity for repression (McAdam, 1996; Garret, 2006, p. 204). The specific opportunities of structures relative to the case study in this research have been illustrated in Chapter 4, Section 4.2.

Another interesting definition is proposed by Tarrow, who defines social movements:

> [contentious politics] occurs when ordinary people, often in league with more influential citizens, join forces in

> confrontation with elites, authorities and opponents […] When baked, by dense social networks and galvanised by culturally resonant actor-oriented symbols, contentious politics leads to sustained interaction with opponents. The result is a social movements. (Tarrow, 1998, p. 2)

As Tarrow defines 'social movements' in terms of 'contentious politics, the definition of the latter is also necessary here:

> episodic, public, collective interaction among makers of claims and their objects when (a) at least one government is a claimant, an object of claims, or a party to the claims and (b) the claims would, if realized, affect the interest of at least one of the claimants. (McAdam, Tarrow and Tilly, 2004, p. 5)

In his definition of 'social movements', Tarrow opts to relate the concept social movements to sustained interaction with opponents, distinguishing social movements from singular protest events. He adds some useful points. First, he makes reference to social networks, consolidating the collective nature of the social movements. And, finally, he specifies elites, authorities and opponents who are confronted with struggle (Crossley, 2002, p. 5). One can visualise movements struggling against real individuals. However, many contemporary movements (for example, the *Indignados* movement or Occupy movement) have more abstract targets (see, for example, Perugorría and Tejerina, 2013; Flesher Fominaya, 2014; della Porta, 2015).

Finally, as Kavada (2007, p. 40) has pointed out, the 'new social movements' approach emerged in Europe as a response to the identity of the 1980s, with a particular emphasis on the core conflicts associated with post-industrial society (Touraine, 1981). According to Touraine (2002, p. 89), the idea of social movement was conceived in opposition to the traditional concept

of class conflict, and it does not describe a part of reality but is rather an element of a specific mode of constructing social reality (Touraine, 1985, p. 749). Thus, the new social movements approach tries to relate social movements to large-scale structural and cultural changes (Diani, 1992, p. 5). According to Touraine the social movement is 'the organised collective behaviour of a class actor struggling against his class adversary for the social control of historicity in a concrete community' (Touraine, 1981, p. 77).

By 'historicity' he means the 'overall system of meaning which sets dominant rules in a given society' (ibidem, 1981, p. 81), and according to Touraine, when we speak about social movement, we try to analyse conflicts in terms of the actors, and not to see the actor as a result of objective forces (Touraine, 2002, p. 89).

Alberto Melucci is not as interested as Touraine in singling out the new core conflict of contemporary post-industrial society. As Melucci notes, the era of industrial conflict has been overtaken and social conflicts can no longer be reduced to political protests because 'struggles for full citizenship are complete or because there are no remaining democratic spaces to conquer, but because the different dimensions of collective conflicts have become increasingly separated' (Melucci, 1989, p. 19). That being said, contemporary movements have shifted towards a non-political terrain, that is, 'the self-realisation of everyday life' (Melucci, 1989, p. 23). At this stage, new forms of collective resistance against the expansion of modern industrial way of live become visible. Melucci proposes a definition of 'social movement' as

> a specific class of collective phenomena which contains three dimensions. First, a social movement is a form of collective action which involves *solidarity*, that is, actors' mutual

> recognition that they are part of a single social unit. A second characteristic of a social movement is its engagement in *conflict*, and thus in opposition to an adversary who lays claim the same good or values. […] Conflict presupposes adversaries who struggle for something which they recognise as lying between them. Third, a social movement *breaks the limits of the compatibility of a system*. (Melucci, 1989, p. 29, his emphasis)

In that sense, Melucci (1989, p. 193) suggests the analysis of this complex relationship among three dimensions: a pre-existing social problem, the development of a shared sense of common interests among actors and the collective action itself. Among these three dimensions we can distinguish the latent phase (the pre-existence of a social problem) and the visible phase (the development of a shared collective identity and the collective action itself). Melucci was crucial in highlighting the differences between movements' latent and visible phases of collective action (1989, p. 78; 1996, p. 115). The latent phase refers to the day to day movement activities, such as preparing protest, fundraising or decision-making processes and develops new cultural codes, reciprocal identification, solidarity ties and emotional investments (Flesher Fominaya, 2010a, p. 384; 2010b, p. 298). These actions may serve as catalyst for latent demands (Melucci, 1996, p. 296). However, mobilisation is directed primarily at obtaining clearly defined results, and it occurs for very important objectives and has a limited duration (Melucci, 1989, p. 78). The birth of a movement and the beginning stage of mobilisation are always characterised by the overlapping of different actors. When the movement consolidates, a settling-down process begins and mobilisation becomes cumulative (Melucci, 1996, p. 296). The specific latent and visible phases relative to the case study in this research are illustrated in

Chapter 5, where Section 5.1 corresponds with the latent phase and Section 5.2 with the visible phase.

2.1.1.4 A new definition of social movements: A network of networks

Considering the immense volume of literature on the subject and the very different ontological approaches adopted by scholars, giving a complete definition of 'social movement' could be considered as an impossible task, but Diani (1992) nevertheless offers four dimensions through which the various senses of 'social movement' given above can be understood: a) networks of informal interaction; b) shared beliefs and solidarity; c) collective action on conflictual issues; d) action which displays largely outside the institutional sphere and the routine procedures of social life (Diani, 1992, p. 7).

The four aspects hence combine to yield a working definition of 'social movement': 'A network of informal interactions between a plurality of individuals, groups and/or organisations, engaged in a political or cultural conflict, on the basis of a shared collective identity' (ibidem, p. 3). This definition coincides with Tarrow's definition, introduced above, and both link the definition of social movements with the existence of informal networks within the movement. However, Diani's view of social movement stresses one important point: that members of a social movements shared beliefs and solidarity. The internal cohesion among the movement members is essential in order for them to come together and generate collective action.

In a recent work titled *Revisando el concepto de movimientos sociales* (Revisiting the concept of social movements, originally in Spanish) published in 2015, Diani reflects on recent events

which have taken place (e.g., the so-called Arab Spring, the *Indignados* movement or Occupy Wall Street). He argues that these events and forms of collective action do not constitute social movements, *per se*, because they are based only in virtual links between participants with similar ideas and their participants do not necessary share the same space and time. He prefers the term 'community collective action'. However, in this study, we use the idea of social movement to refer such cases, following della Porta (2015). She argues that these recent protests (from Iceland in 2008, and then forcefully in Tunisia, Egypt, Spain, Greece and so on) form part of the anti-austerity social movements. These protests will be the main focus of the next chapter.

As Kavada has pointed out (2007, p. 41) Diani's definition remains very popular, as it corresponds more accurately to the reality of current social movements which are often characterised as 'networks of networks' or 'networked social movements' (Juris, 2004). Diani's definition of social movements as networks is the most precise definition we have found related to this study, and we consider Diani's view of social movement to be accurate for the purposes of my study because the conception of social movements as 'networks of informal interactions' implicitly recognises the centrality of communication and interaction for the very existence of a social movement, and these concepts (communication and interaction) are two main points of this research.

2.1.2 Social movements and networks analysis

As John Krinsky and Crossley have pointed out (Krinsky and Crossley, 2014, p. 3), the study of social movements and that of

social networks have a long relationship in sociology. Tilly in his book *From Mobilization to Revolution* (1978) adopted for first time the idea of 'catnets' to describe the groupness of social movement actors. The idea of catnets was developed by the network theorist Harrison White in his attempt to develop an approach to the study of social structure derived from a Parsonian approach (Diani, 2013). This expression merges two distinct concepts: 'categories' and 'networks'. According to Tilly (1978, p. 63), the term 'catnet' derives from the maxim that 'a set of individuals is a group to the extent that it comprises both a category and a network'.

According to McAdam, Tarrow and Tilly, actors have generally established previous relations, contentious or not, to other collective actors; those relations have shaped internal structures of the actors and helped to generate their stories (McAdam, Tarrow and Tilly, 2004, p. 132). Thus, actors consist of networks deploying partially shared histories, cultures and collective connections with other actors.

Social network analysis (SNA) enables us to conduct systematic investigation of network processes within social movement from two main perspectives (Diani, 2002, p. 174). First, it helps us to analyse how collective action is effected by the actors' embeddedness in pre-existing networks and, second, network analysis can be used to illustrate how social movement actors create new linkages that, in turn, constrain the subsequent development of protests (ibidem, p. 175). As Passy (2003, p. 41) notes, social networks perform various functions in the process of individual participation; specifically, they intervene in at least three different ways. First, they intervene in the socialisation and construction of identities. In this function, networks generate structures of meaning that enable individuals to create identities with specific political

contentions. Second, networks connect potential participants to a social movement organisation. For this function, in particular, the structure of meanings arising from the relations between recruiters and recruits effects the intensity of participation. In this respect, close friends and participants who are already involved in a movement at the highest level of participation are better able to provide prospective members with trust than other types of ties. Finally, networks intervene when people decide to join a movement. In sum up, networks are important not only because they provide individuals with an environment that facilities recruitment to social movements but also because they are able to create a structure of meanings (Passy, 2003, p. 43). These issues include questions about the diffusion of social movement performances or action, about the frames used by the movement and about the collective identities shared for the movement's members. The next sections focus on these three main concepts of social movement studies.

2.1.2.1 Diffusion process

The concept of diffusion refers to the spread of some innovation through direct or indirect channels across members of a social system (Rogers, 1995). One cannot understand social movements without understanding the dynamics of diffusion (Kolins, Roberts and Soule, 2010, p. 1). Classic diffusion models involve a transmission of some innovation between people, and it is impossible to have any diffusion without some kind of contact or network tie between individuals (Oliver and Myers, 2003, p. 175). In this respect, networks 'provide the channels whereby movement frames, repertoires, and sometimes even triggers are diffused beyond instigators to a wider population of potential participants' (Krinsky and Crossley, 2014, p. 4).

As Edwards has pointed out (2014), following Strang and Soule (1998), five key factors can be identified that drive the diffusion of innovation in social movements:

1. *Cohesion through strong ties.* In an epistemological context, infections spread via direct contact between the source and the adopter (Edwards, 2014, p. 50). Cohesion through the stronger ties, that is, the direct ties between two nodes, is the contagion mechanism in its simplest form, because direct ties can allow the powerful affect of personal influence (Edwards, 2014, p. 50). Frequent interaction produces much exchange of information about the character, motivations, and effects of diffusing practices (Strong and Soule, 1998, p. 272).

2. *Weak ties.* The concept of weak ties was introduced first by Granovetter (1973). Granovetter emphasises the ability of weak ties to reach out to groups with ideas and information different from one's own, acting as bridges between various densely connected groups (Granovetter, 1983, p. 215). What Granovetter suggests is that new information travels via weak ties rather than strong ones. McAdam, Tarrow and Tilly (2004, p. 333) use the concept of 'brokerage' to refer to the link of two or more unconnected actors which come into contact via a shared third party.

3. *Structural equivalence.* Burt (1987, p. 1288) argues that social contagion arises from people proximate in social structure using one another to manage the uncertainty of innovation. These types of relation are all symmetric, but, as Strang and Sole (1998, p. 2759 have noted, adopters may be influenced by prestigious, central actors in ways that are not reciprocated or symmetric.

4. *Mass media.* The fourth factor in the diffusion process is the mass media. 'Mass media' refers to any medium use to diffuse

mass communication, and it offers frameworks for understanding the causes and solutions to political problems (Gamson, 1992; Benford and Snow, 2000).

5. *Cultural logic of diffusion*. Finally, Strang and Soule (1998) emphasise a fifth factor: the cultural logic of diffusion. According to Edwards (2014, p. 51), new practices will diffuse only if they find cultural legitimacy on a local level or are found to resonate with existing cultural identities and beliefs (McAdam, Tarrow and Tilly, 2004; Snow and Benford, 2000).

As Kolins, Roberts and Soule (2010, p. 4) have suggested, the content of diffusion, that is, the innovation that is diffused, can occur across two primary dimensions of social movements: behavioural and ideational. The behavioural dimension involves the diffusion of movement tactics or collective action repertoires. The different forms of contentious actions (such as strikes, riots, and so on) may occur in waves, spreading from their original site of contention to others.

Ideational diffusion occurs through the spread of collective action frames that define issues, goals, and targets (Kolins, Roberts and Soule, 2010, p. 4). As some scholars (Benford and Snow, 1992, pp. 135–136; McAdam, 1982; McCarthy and Zald, 1977) have noted, social movements do not arise in naturally from shared interests or grievances. To mobilise participation, social movements engage in a process of 'production of ideas and meaning' (Snow and Benford, 1992, p. 136).

One question that has been raised involves the dynamics of diffusion online. Earlier studies focus on the diffusion of information through the channels of interpersonal acquaintance networks (Krinsky and Crossley, 2014, p. 5), which usually

involve physical spaces ICTs like Facebook or Twitter,[1] combine aspects of interpersonal networks and mass-communication broadcast (Marlow, 2005, p. 37) and can quickly join users from around the world, disseminating information through multiple channels quickly across space and time. Paul Virilio (2006/1977) suggests that 'space is no longer in geography—it is electronics'. As Anne Kaun (2015, p. 90) argues, in that context, politics become less about physical space, but about the time regimes of technology, producing a shift from geo- to chrono-politics. We will come to this question of the location of politics in the next chapter.

2.1.2.2 Framing process

The framing process is concerned crucially with diffusion. According to Krinsky and Crossley, the framing process 'involves a diffusion of ideological content through the establishment of new ties among actors' (2014, p. 4), that is, among a network. Participating because of common interests or ideologies requires a shared interpretation of 'who should act, why and how'. Framing is the bridging mechanism between the more individual social-psychology of grievances and emotions and the more sociological concepts of meaning and interpretation (van Stekelenburg and Klandermas, 2010, p. 7). Tarrow claims that

> [the term 'framing'] originally applied to how an individual constructs reality, but in the social movement tradition that grew out of his work, scholars have focussed on how

[1] See, for example, the work of Douglas McAdam (1982) on the black insurgency in America or the work of Diani (1995) on the Italian environmental movement.

> movements frame specific grievances with collective action frames that dignify claims, connect them to others, and help to produce a collective identity […] Framing is carried out not only by social movements organisers, but also by the media, by other sources of information, and by the state. (1998, p. 144)

Frame analysis allows us to capture the process of the attribution of meaning which lies behind the explosion of any conflict (della Porta and Diani, 2006, p. 74). Mayer N. Zald points out that

> the recent focus on the strategic framing of injustice and grievances, their causes, motivation and associated templates for collective action, has served to reemphasize the central importance of ideas and cultural elements in understanding the mobilization of participation in social movements and the framing of political opportunity. (Zald, 1996, p. 261)

The concept of the frame as used in the study of social movements is derived primarily from the work of Goffman (1986/1974), according to whom,

> Primary frameworks vary in degree of organization. Some are neatly presentable as a system of entities, postulates, and rules; others […] appear to have no apparent articulated shape, an approach, a perspective. Whatever the degree of organization, however, each primary framework allows its user to locate, perceive, identify and label a seemingly infinite number of concrete occurrences defined in its terms. (1986, p. 21)

As Elisa Bellotti (2015, p. 50) has pointed out, Goffman dedicates a great part of his work to the study of the 'art of impression management', by which actors try to control the

intentional and unintentional signals they perform in everyday life. Goffman defines the 'art of impression' as 'the moment when a performer leaves the back region and enters the place where the audience is to be found, or when he returns therefrom' (Goffman, 1956, p. 74).

However, it was not until the year of 1986 that Snow, Rochford, Worden, and Benford introduced framing analysis into social movements study in their empirical work 'Frame Alignment Processes, Micro-Mobilization, and Movement Participation' (1986), which examines why people engage in social movements. Snow, Worden and Benford define framing as a collective process of interpretation, attribution, and social construction, mediated between opportunity and action (Snow et al., 1986; Snow and Benford, 1988). For movement activists, framing is a meaning construction which is as an active process, in the sense that something is being done, processual, in the sense of a dynamic, evolving process, and contentious in the sense that it involves the generation of interpretive frames that not only differ from existing ones but that and also challenge them.

The result of this framing activity is referred to as 'collective action frames' (Benford and Snow, 2000). Collective frames provide diagnostic attribution, which is concerned with problem identification, and provide prognostic attribution, which is concerned with problem resolution (Snow and Benford, 1992; Ayres, 1999, p. 14). Master frames provide broader interpretation paradigms. William Gamson (1992) describes three components of collective action frames: injustice, agency and identity. Injustice refers to some moral indignation that traces the cause to specific actors who are responsible for the harm and suffering. In a similar way, Doug McAdam argues that 'before collective action can get underway, people must collectively define their situations as unjust and subject to

change through group action' (McAdam, 1982, p. 51).

In a similar vein, 'agency' describes that something can be done about the problem if people act collectively. Mustafa Emirbayer and Ann Mische define 'agency' as

> a temporally embedded process of social engagement, informed by the past, but also oriented toward the future (as a capacity to imagine alternative possibilities) and toward the present (as a capacity to contextualise past habits and future projects within the contingencies of the moment). (Emirbayer and Mische, 1998, p. 963)

Finally, identity is the process of creating an adversary based on clearly apparent differences in interest and values (Gamson, 1992). This framing process provides 'legitimizing accounts', shaping and sustaining mobilisation campaigns (McAdam, McCarthy and Zald, 1988, p. 713). The framing process is necessary in order to develop the formation of a movement's collective identity, and it has the aim to influence the levels of identification and collective identity building (Coretti, 2014, pp. 57–58), as we will explore in the Section 2.3.3.

2.1.2.3 Collective identity

Collective identity is a key concept within the field of social movement studies. It plays a fundamental role in bridging individuals' motivations for collective action. At its most basic level, 'identity' can be defined as a group's source of meaning and experience (Castells, 2010/1997, p. 6). As Calhoun writes,

> We know of no people without names, no languages or cultures in which some manner of distinctions between self and other, we and they are not made…Self-knowledge – always a construction no matter how much it feels like a

> discovery – is never altogether separable from claims to be known in specific ways by others. (Calhoun, 1994, pp. 9–10)

According to Castells (2010, p. 7), from a sociological perspective, all identities are constructed. The real issue, following to Castells, are how, from what, by whom and for what this construction of identities takes place.

The concept of collective identity is central within social movement theory, shifting from rationalist to more cultural perspectives of social movements (Kavada, 2007, p. 62). As Polleta and Jasper have pointed out, sociologists of social movements have also been attracted to collective identity as a response to gaps in resource mobilisation and political process models (Polleta and Jasper, 2001, p. 284).

As Melucci (1996) argues, the formation of collective identity is a dynamic and open-ended process through which collectivities are formed and continuously redefine themselves and their boundaries. Melucci elaborates,

> [collective identity] is the process of 'constructing' an action system [...] Is an interactive and shared definition produced by a number of individuals (or groups at a more complex level) concerning the orientations of their action and the field of opportunities and constraints in which such action is to take place. By 'interactive and shared' I mean that these elements are constructed and negotiated through a recurrent process of activation of the relations that bind actors together. (Melucci, 1996, p. 70, his emphasis)

This process involves two different levels, related to two different levels of communication: on the one hand, between the protest organisers and the activists' base, both top-down and

bottom-up, and on the other hand, within horizontal communication between activists themselves (Coretti, 2014, p. 67). As Holland et al., argue,

> a movement's collective identity is continually emerging, forming and reforming between people and groups in multiple sites and places of contentious practice [...] Identity is constructed in dialogues across differences between two or more actors with the result that new cultural forms of knowledge are produced and subsequently appropriated for use in later interactions. (2008, p. 99)

This process of constructing an action system, according to Melucci (1989), involves three different spheres: firstly, a cognitive definition of the movement, concerning the ends, means, and the field of action. In that respect, Melucci argues, this cognitive level does not necessarily imply unified and coherent frameworks; rather, firstly, it is constructed through interaction and comprises different and sometimes contradictory definitions (Melucci, 1996, p. 71); secondly, the process of identization' (Melucci, 1995, p. 51) is also framed by a network of active relationships between movement participants who interact, communicate, influence each other, negotiate, and make decisions (Kavada, 2009, p. 821); and, thirdly, it created of emotional bonds with the participants. These forms of organisations and models of leadership, communicative channels and technologies of communication are constitutive parts of this network of relationships (Melucci, 1996, p. 71). In that respect, to understand, interact and bond together is essential in the process of building up the movement's collective identity. Equally, as Rawi Abdelal et al., (2006, p. 696) have pointed out, collective identity divides along two dimensions: content and contestation. The former describes the meaning of a

collective identity, while the latter refers 'to the degree of agreement within a group over the content of the shared identity' (ibidem). The content, thus, the collective meaning, of identities is neither fixed nor predetermined. Rather, content is the outcome of a process of social contestation within the group (Abdelal et al., 2006, p. 700). Collective identity also sends messages to those outside the group (McGarry and Jasper, 2015, p. 2). These messages present a group to authorities and opponents as worthy, unified, numerous, and committed (WUNC), what Tilly calls 'WUNC displays' (Tilly, 2004, p. 4). As McGarry and Jasper have pointed out, the most successful identities suggest a social movement powerful enough that others take it seriously. Table 1 presents some of the internal and external effects of collective identities.

	Internal	External
Benefits	Solidarity with others Pride in one self Strengthened networks and organizations	Projection of power Ability to demand rights in name of group Aura of inevitability
Risks	Imperfect fit with personal identities Solidarity restricted to one's group	Difficulty incorporating new identities Risk of highlighting stigma, especially for individuals Increased difficulty assimilating for individuals Increased powerf orcertain leaders to be "representative" of the group Commercial co-optation

Table 1. Internal and external effects of collective identity. Source: McGarry & Jasper, 2015, p. 5

Finally, we would like to note that, while traditional social movement theorists have seen the existence of a strong identity and a sense of collective solidarity as a crucial pre-condition for collective action (Gerbaudo, 2012, p. 30), in contemporary

societies, where the condition of social individualisation (Bauman, 2001; Beck, 1992) exists to some extent, collective identities appear the exception rather than the norm, and social networks are dominated by weak ties rather than strong ties (Gerbaudo, 2012, p. 30). However, mobilisation cannot take place in the presence of a weak collective identity. Taking account of this feature of contemporary society, and in line with Lorenzo Coretti (2014, p. 69), this research intends to explore such relationships in order to consider social media not as mere communication tools but, rather, as agents in the collective identity development of social movements.

2.1.3 Conclusion

This chapter has illustrated the main theoretical concepts upon which this research is based. The network of informal interaction between a plurality of individuals is the main factor at the organisational level of a social movement. They allow to the participants in a social movement to build a network which allows them to organise. Three main concepts are essential in this process: the diffusion of the ideas, the framing processes and the construction of a shared collective identity plays a fundamental role in the development of a movement. Altogether, these principles will be essential in terms of organising and situating the findings of this research study case. These issues become crucial in the light of the spreading of computer-mediated communication and the origin of social media. The role played by these technologies were essential in the wave protests which rose in Iceland in 2008 and later washed into Tunisia, Egypt, Spain, and Greece, and more recently into Brazil, Turkey and the Ukraine. This rise of protests will be examined in the next chapter, where the

relationship between the social media and the activists, through the concepts of mediation and the opportunity structure, is assessed.

2.2 From Collective to Connective Action: Social movements in the 21st Century

Introduction

The aim of this chapter is to explain the conceptual shift from the logic of collective action, which has been widely developed in the classic social movement theories, to the logic of connective action, a term which refers to an action taken by a group of people in order to achieve a common objective.

Bennet and Segerberg proposed the logic of connective action in 2012. The central point of this logic is the recognition of digital media as organising agents (Bennet & Segerberg, 2013, p. 34). Social media are expected to play a crucial role by allowing large-scale mobilisation processes to occur without involving formal organisations (Anduiza et al., 2014, p. 753). Bennet and Segerberg's definition's insists connective action takes the communication network as the central organizational feature of

political action, and thus social movement (Bennet & Segerberg, 2012, p. 745).

Taking this concept into consideration, in this chapter we first theorize the concept of connective action. Thus, the first section provides a framework to compare the two logics of action. Section 3.2 explains the relationship between network and power, taking into consideration the definition of power proposed by Castells (2009). Section 3.2.1 analyses the use of social media by protesters. Section 3.3 concerns mediation opportunity structures. Drawing on the work of Cammaerts (2013), we integrate the concept of political opportunity structures and the logic of contentious action with the concept of mediation. The integration of these two concepts allows us to bridge a gap between social movements and media and communication studies. Section 3.3.1 then turns to the logic of the self-mediation of social movement, laying out the concept of 'technologies of the self' proposed by Foucault (1997). Finally, the last section examines the affordances and constraints of social media for protest movements.

2.2.1 Collective versus connective action

The distinction between collective and connective action does not intend to distinguish in any sense offline from online action; instead it aims to emphasise the differences in organisational coordination, and action frames within action network, using social technologies to increase participation and direct objectives (Coretti, 2014, p. 86). The more familiar of the two logics is the logic of collective action, which emphasises the problem of getting individuals to contribute to a collective endeavour that typically involves some sort of public good (e.g., democratic reforms) (Bennet & Segerberg, 2013, p. 31).

Mancur Olson formulated the logic of collective action for the first time in 1965 within the field of economics, but the implications of his theory have reached far beyond the original formulation. Olson begins his account of this problem by outlining a concept of 'public goods'. A public good is a good which can be achieved either for a population as a whole or not at all, that is, a good which individuals cannot consume individually or keep to themselves (Crossley, 2002, p. 61).

Thus, according to Olson

> when a number of individuals have a common or collective interest—when they share a single purpose or objective—individual, unorganized action will either not be able to advance that common interest at all, or will not able to advance in that interest adequately. Organizations can therefore a function where there are common or group interests, and though organizations often also serve purely personal, individual interests, their characteristic and primary function is to advance the common interests of groups of individuals. (1971, p. 7)

Olson argues that individuals who belong to an organisation can be presumed to have a common interest, but they also have individual interests, different from those of the others in the organisation or group (Olson, 1971, p. 8). He explains that shared interests are simply not enough to motivate individual effort in the absence of selective rewards that go only participants: 'unless the number of individuals in a group is quite small,' he explains, 'rational self-interested individuals will not act to achieve their common or group interests' (Olson, 1971, p. 2). In the context of social movement theory, the problem is that rather than paying the costs (police repression, marginalisation, and so on) of engaging in collective action, it

would be more rational for self-interested individuals to abstain from collective action and wait to reap the rewards of other individuals' involvement (Weismuller, 2012, p. 1). Moreover, if not enough people join in creating the good, your efforts are wasted anyway. The solutions that Olson proposes (coercion and selective incentives) imply organisations with a substantial capacity to monitor, administer and distribute the goods. From this perspective, formal organisations with resources are essential to harnessing and coordinating individuals in common action (Bennet & Segerberg, 2013, p. 31). A major part of the problem of collective action, for Olson, regards how self-interested monads could ever be moved into a collective formation. Resource mobilisation theory, by contrast, assumes the existence of a collective as given (Crossley, 2002, p. 100). The early application of this logic to contentious action was exemplified by resource mobilisation theory-, in which social movement scholars examined the role of structural and organisational factors within social movements.

At the opposite end of the spectrum, we can find the logic of connective action. Bennet and Segerberg proposed this model in 2012, based on the analysis of large-scale protests, such us the London Put People First (PPF) or the *Indignados* movement in Spain. The central point of this logic is the recognition of digital media as organising agents (Bennet & Segerberg, 2013, p. 34). Social media are expected to play a crucial role by allowing large-scale mobilisation processes to occur without involving formal organisations (Anduiza et al., 2014, p. 753). Furthermore, as Bennet and Segerberg highlight the primacy that connective action places on communication networks in organizing political action (Bennet & Segerberg, 2012, p. 745), Steven Livingston and Gregory Asmolov argue that there is also an important degree of technology-enabled networking

(Livingston & Asmolov, 2010, p. 746) that makes highly personalised, socially mediated communication processes fundamental structuring elements in the organisation of many forms of connective action (Bennet & Segerberg, 2012, p. 749). In this connective logic, taking public action or contributing to a common good becomes an act of personal expression and recognition or self-validation achieved by sharing ideas and actions in trusted relationships (Bennet and Segerberg, 2012, p. 753). In the middle of the framework of connective action, there is a hybrid model. This hybrid form of organisation enabled connective action sits along a continuum somewhere between the two ideal types of conventional organisationally managed collective action and more self-organised connective action (Bennet & Segerberg, 2012, p. 754). According to Bennet and Segerberg, networks in this hybrid model 'engage individuals in causes that might not be of such interest if stronger demands for membership or subscribing to collective demands accompanied the organizational offerings' (2012, p. 757).

As Coretti has pointed out (2014, p. 86), the account of connective action is similar to the 'networked movements' framework outlines by Jeffrey Juris. Drawing on studies around the Zapatista's movement and the Global Justice Movement (GJM), Juris argues that networked movements means 'a new mode of organising involving horizontal coordination among autonomous groups, grassroots participation, consensus decision-making, and the free and open exchange of information, although there is often a contradiction between theory and practice' (Juris, 2007, p. 133). The Internet plays a vital role because, according to Juris (2008), it does not provide simply the technological infrastructure for computer-supported social movements; rather, its reticulate structure reinforces their organisational logic. As he traces the argument (2004, p. 349),

'decentralized, flexible, local/global activist networks constitute the dominant organizational forms within global justice movements, reflecting the broader logic of informational capitalism'.

Juris' concept of networked movements is influenced by the idea of network society developed by Castells (2009), who opines that this networking and decentred form of organisation and intervention, characteristics of the new social movements, mirrors and counteracts the networking logic of domination in the information society.

In this model of connective action, networking mechanisms play a role not just for individual experience, but more broadly for the resulting connective action. As Bennet and Segerberg (2013, p. 44) state, the 'communication technologies play into the dynamics of connective action in ways that shift focus from networks as conditions of pathways to participation to networks as organizational units'.

Moreover, according to these same authors, collective and connective action may co-occur in various forms within the same ecology of action and, in this sense, it is not possible to discern three clear ideal types of large-scale action networks. While one is primarily characterised by collective action logic, the other two are connective action networks, distinguished by the role of formal organisations in facilitating personal engagement (ibidem).

Typology of connective and collective action networks

Bennet and Segerberg (2012, 2013) propose a three-part typology of large-scale action networks that feature prominently in contemporary contentious politics. Table 3 presents an

overview of the two connective action network types and contrasts their organisational properties with more familiar collective action network characteristics (Bennet & Segerberg, 2012, p. 755).

The ideal collective action on the right side of the figure describes a large-scale action network that depends on brokering organisations to carry the burden of facilitating cooperation and bridging differences when possible. These organisationally brokered networks may use digital media and social technologies primarily as means of mobilising and managing participation and coordinating goals rather than inviting personalised interpretations of problems and action (Bennet & Segerberg, 2013, p. 46).

At the other extreme, at the left of the figure, we can identify connective action networks that are organised by the crowd without central or 'lead' organisational actors, using technologies as important organisational agents. They tend to remain at the periphery or may exist as much in online forms as in offline forms (Bennet & Segerberg, 2012, p. 755). For instance, much of face-to-face organising work may go on in these cases; however, the networks are primarily technology-enabled and subject to notable reconfiguring as sub-networks shift their activities and the crowd responds to external events such as police raids or camps (Bennet & Segerberg, 2013, p. 48).

In between the organisationally brokered collective action networks and the more self-organising (technology organised) connective action is the hybrid pattern (Bennet & Segerberg, 2012, p. 755). This middle type involves formal organisation actors stepping back from projecting strong agendas, political brands and collective identities, favouring instead the use resources to deploy social technologies and enable loose public

networks to form around personalised action themes (ibidem, p. 757). Networks in this hybrid model engage individuals in causes that might not be of such interest if stronger demands for membership or subscription to collective demands accompanied the organisational offerings. The role of digital media networking and the framing of personalised action distinguishes these networks from more conventional collective action networks. However, the key to the organisationally enabled network action repertoire is that constituent organisations adopt the signature mode of personalising the engagement of publics. This personalisation leads to necessarily relaxed relations with other organisations in the network due to mutual requirements to put harder-edged demands and issue frames in the background (Bennet & Segerberg, 2013, p. 48). Bennet and Segerberg (2013, pp. 48–49) explain that the model is intended to spotlight broad differences, general tendencies, and dynamic tensions in forms of mobilisation. The three forms of network organisation interact and overlap, and various tensions may arise and come into conflict. Such variations on different organisational forms offer intriguing opportunities for further analysis aimed at explaining whether mobilisations achieve various goals and attain different levels of WUNC (ibidem).

CONNECTIVE ACTION	CONNECTIVE ACTION	COLLECTIVE ACTION
Crowd-Enabled Networks	Organizationally Enabled Networks	Organizationally Brokered Networks
Little or no formal organizational coordination of action. Large-scale personal access to multi-layered social technologies Communication content centers on emergent inclusive personal action frames Personal expression shared over social networks Crowd networks may shun involvement of existing formal organizations	Loose organizational coordination of action Organizations provide social technology outlays – both custom and commercial Communication content centers on organizationally generated inclusive person action frames Some organizational moderation of personal expression through social networks. Organization in the background is loosely linked networks	Strong organizational coordination of action Social technologies used by organizations to manage participation and coordinate goals Communication content centers on collective action frames Organizational management of social networks- more emphasis on interpersonal networks to build relationships for collective action Organizations in the foreground as coalitions with differences bridged through high resource organization brokerage

Table 2. Elements of Connective and Collective Action Networks. Source: Bennet & Segerberg, 2013, p. 47

2.2.2 Network and power

In this section we address the question of how power operates in different kinds of connective action networks. When discussing media and communication power, Castells' approach has in recent years received the most attention (Fuchs, 2015, p. 12). According to Castells, 'power is the most fundamental process in society, since society is defined around values and institutions, and what is valued and institutionalised is defined by power relationships (Castells, 2009, p. 10). He continues,

> Power is the relational capacity that enables a social actor to influence asymmetrically the decisions of other social actor(s) in ways that favour the empowered actor's will, interests, and values. Power exercised by means of coercion (or the possibility of it) and/or by the construction of meaning on the basis of the discourses through which social actors guide their action. (Castells, 2009, p. 10)

For Castells, a global social network and social networks of social networks that make use of global digital communication are the fundamental source of power and counter-power in contemporary society (Fuchs, 2009, p. 94). Castells thinks that counter-power is 'the capacity of social actors to challenge and eventually change the power relations institutionalised in society' (Castells, 2007, p. 248). As he argues, the most crucial forms of power and counter-power in a network society follow the logic of network-making power:

> In a world of networks, the ability to exercise control over others depends of two basic mechanisms: (*1) the ability to constitute network(s), and to program/reprogram the network(s) in terms of the*

> *goals assigned to the network; and (2) the ability to connect and ensure the cooperation of different networks by sharing common goals and combining resource, while fending off competition from other networks by setting up strategic cooperation.* (Castells, 2009, p. 45, his emphasis)

Castells' network society theory rightly foregrounds the rise of networks in social, political and economic organisation, but it involves a concept of 'society' that, according to Nick Couldry (2015, p. 611), is under-developed. It appears that for Castells the horizontal networks are the equivalent of the *social* (ibidem, added emphasis). Consequently, as Castells argues, networked action produces for itself a new social structure:

> enthusiastic networked individuals, having overcome fear, are transformed into a conscious, collective actor. Thus social change results from communicative action that involves connection between networks of neural networks from human brains stimulated by signals from a communicative environment through communication networks… This is the new context, at the core of network society as a new social structure, in which the social movements of the twenty-first century are being formed. (Castells, 2015, p. 247)

Castells focusses on networked action (disconnected from broader detailed discussion of the contexts and resources of everyday action) as the exemplar of all social action by individuals and groups in the digital age (Couldry, 2015, p. 612). The emergence of a social movement presupposes societal problems as a material basis. For protest movement or revolution to emerge, there must be objective conditions (problems in society) and subjective insight into these

conditions (Fuchs, 2012, p. 779). Hence 'cognitive liberation' and rebellious consciousness are necessary (McAdam, 1982). The difference between objective structures and subjective expectations is an important aspect of protest. According to Crossley (2012, p. 185), 'when the "fit" between objective structures and subjective expectations is broken the opportunity for critical reflection and debate upon previously unquestioned assumptions is made possible'. Such attempts are only successful if possibilities and resources for protest can be found. The problem of Castells' account is that he puts a very strong emphasis on the mobilisation capacities of the Internet. His argument implies that Internet communication created street protests, which means that without the Internet there would have been no street protests (Fuchs, 2015, p. 780). As Veronica Barassi has pointed out, Castells' analysis falls short of recognising that 'the relationship between social movements and new technologies is a matter of constant negotiation and is defined by a complex dialectics between transformation and continuity, between the technical and the social, and between old and new political repertoires of political actions and media activism' (Barassi, 2013, p. 6)

Technology is conceived as an actor that results in certain phenomena that have societal characteristics. In this sense, Paolo Gerbaudo (2012) challenges theoretical and empirical grounds the assumption of Castells' and others that the Internet brings about leaderless movements (Fuchs, 2015, p. 783). According to Paolo Gerbaudo (2012, p. 139), there are soft leaders that make use of social media for choreographing protests and constructing choreography of assembly. As he puts it, 'a handful of people control most of the communication flow' (ibidem, p. 135). The choreography of assembly means 'the use of social media in directing people towards specific

protest events, in providing participants with suggestions and instructions about how to act, and in the construction of an emotional narration to sustain their coming together in the public space' (Gerbaudo, 2012, p. 12). According to Paolo Gerbaudo

> the term 'choreography' is a metaphor to render the idea that at the time of social media protest activity is not as spontaneous and disorganised as it might appear at first sight (...) contemporary digital activists come to act as choreographers or soft leaders or sorts. Through the messages, suggestions, and instructions they disseminate, they shape the way in which movements assemble in public space. (2013)

One of the most interesting principles of network theory is power law. The term 'power law' (Bennet and Segerberg, 2013, p. 152) is in line with Gerbaudo's idea of soft leaders. The term 'power signature' refers to the degree to which recognition (prestige and influence) is concentrated or dispersed among actors in a network. The basic idea is that there is a remarkable tendency among networks of very different types to link to, and thus concentrate, their associations around established high-capacity or high-popularity nodes (Buchanan, 2002). This tendency gives such networks a curious but robust 'scale-free' pattern of association (Bennet & Segerberg, 2013, p. 153) linking bottom nodes to larger, or more widely recognised, nodes (Barabási, 2009). Steep power law distribution (a small number of nodes getting most of the links and traffic) can be observed in many kinds of social and political networks, and the importance of these network 'heads' has been widely discussed (Bennet & Segerberg, 2012, p. 154); additionally, the concentration of followers around a few highly visible nodes is not only

inevitable, but explains their impact in terms of influence or prestige (Shirky, 2003). Bennnet and Segerberg note that (2013, p. 154) in the crowd-enabled connective action model, the 'tails' of these steep power distributions can also serve important roles that may not be intuitive when one considers the bottom end of a power distribution. According to Fragkiskos D. Malliaros et al., (2016) the problem of identifying nodes with potent dispersive properties in networks can be further split in two subtopics: (1) identification of individual influential nodes, and (2) identification of a group of nodes that, by acting all together, are able to maximize the total spread of influence (Malliaros et al., 2016, p. 1). For instance, the tail of a network drives many new nodes to the top, aggregating audiences among otherwise unstructured online populations. Indeed, sometimes tails can have independently important effects in networks depending on how access to them is organised or what positions they may occupy in other networks (Bennet & Segerberg, 2013, p. 154).

2.2.3 Social media and protests

The 21st century has already witnessed protest events, large and small, and with different targets: town councils, national leaders, international organisations and summits, or corporate bands. But, according to Castells (2009, p. 75), it was in 1994 that the Mexican Zapatista movement used digital technologies for the first time. Castells refers to this movement as the 'the first informational guerrilla movement' (ibidem). Ronfeldt et al. (1998), define the Mexican Zapatista movement as a social netwar. As they argue that 'Mexico, the nation that gave the world of social revolution early in the 20th

century, has generated an information-age prototype of militant social netwar in the eve of the twenty-first century' (Ronfeldt et al., 1998, p. 1). In the Mexican strategy, Castells identifies (2009, p. 83), the use of telecommunications, videos, and of computer-mediated communication was essential in two ways: first, it allowed them to diffuse their message from Chiapas to the world, and second, to organise a worldwide network of solidarity groups that encircled the repressive intentions of the Mexican government.

The Zapatista legacy has carried through to the 'alter-globalization movement' (Kavada, 2007, p. 10). As Bennet and Segerberg have pointed out (2013, p. 4), during the decade leading up had been thousands of protests, large and small, with different organisations and causes and against different targets. Within this context, activists used digital media to help mobilise among this multi-issue, multi-arena and multi-target scenario. These protests can be traced at least as far back as the 'Battle of Seattle'. The 'Battle of Seattle' involved about 50,000 demonstrators who organised over 500 protest groups and were responsible for the shut down a World Trade Organization meeting in 1999, which took place in Seattle. According to Kavada (2007, p. 10), the Battle of Seattle 'left an indelible mark on the anti-globalization movement, as its global scale, diversity of participants and non-hierarchical organization'. The Seattle protests also marked the birth of *Indymedia*, a network of independent media centres which allowed every Internet user to publish their stories via its open publishing system and, in this way, to reach to a global audience (Hintz, 2015, p. 115). Although they were different in many respects (size, composition or levels of coherence and violence), the 'global justice' movements were similar in terms of diffusion of actions repertoires, campaign models,

communication practice and political discourses (Bennet & Segerberg, 2013, p. 4).

As we have noted previously, the question of the relationship of social media and protest movements has exploded as a field of research in the last couple of years with uprisings like the Arab Spring, the *Indignados* movement, Occupy Wall Street, Gezi Park in Turkey, and, more recently, the Umbrella Movement in Hong Kong (Dencik, 2015, p. 204). For the purposes of analysing connective action, it is important to understand the distinctive role that communication plays in these often densely interwoven networks of human actors, discourses, and technologies. Beyond sharing information and sending messages, the organising properties of communication become prominent in connective action networks (Bennet & Segerberg, 2013, p. 42).

Definitions of social media generally focus on sharing, participation, and cooperation. Clark Shirky asserts that social media 'increase our ability to share, to cooperate with one another, and to take collective action, all outside of the framework of traditional institutions and organizations' (2008, p. 21). Furthermore, according to José van Dijck,

> The very word 'social' associated with media implies that platforms are user centered and that they facilitate communal activities, just as the term 'participatory' emphasizes human collaboration. Indeed, social media can be seen as online facilitators or enhances of human networks- webs of people that promote connectedness as a social value (van Dijck, 2013, p. 11).

By the term 'social', following to Couldry (2013, p. 1), we mean the web of interrelationships and dependencies between human beings that are always, in part, relations of meaning.

Generally speaking, social media can be defined as 'a group of Internet-based applications that build on the ideological and technological foundations of the Web 2.0 and that allow the creation and exchange of user-generated content' (Kaplan & Haenlein, 2010, p. 60). For protests, social media can serve as channels for expressing collective consciousness and national solidarity (Khamis & Vaughn, 2013, p. 70). In this way, Cammaerts (2012, p. 119) emphasizes the interconnected networked environment in which social movements operate today, addressing the impact of ICTs on the ability of movements to organise and mobilise. Regarding this interconnection, Philip N. Howard and Malcolm R. Parks (2012) clarified that social media consists of (a) the information infrastructure and tools used to produce and distribute content that has individual value but reflects shared values; (b) the content that takes the digital form; and (c) the people, organisations and industries that produce and consume both the tools and the content.

The Internet, as information and communication infrastructure, produces an impetus in terms of facilitating the organisation of and mobilisation of protest (Cammaerts, 2013, p. 127). As Stefania Milan has pointed out (2015a, p. 890), the fundamental change that social media introduces to the realm of the organised collective is at the material level. By materiality, she means both the online platforms people increasingly depend on for interpersonal communication and organising, but also the messages, images and data field emotions and relations brought to life on those platforms. According to Milan (2015b, p. 7), the materiality of social media intervenes through four mechanisms. These mechanisms are (ibidem) as follows:

1. *Centrality of performance*. Social media allows users to enact a story in which they are the protagonist. The digital performance is the condition *sine qua non* of social action, whereby making protesting visible on social media turns out be constituent of the protest.

2. *Interpellation to fellows and opponents*. Social media enable users to call other people into the action, by means, tags, citations and mentions.

3. *Expansion of the temporality of the protest*. By enabling asynchronous interactions, social media rearrange our perception of collective action. According to McKelvey (2014, p. 603), the 'continuous media' of social networking means that protest actions are reproduced, played out, and discussed beyond the duration and life cycle of action. Thus, the collective action is continuously activated and recursively reinforced as opposed to surfacing only on the occasion of meetings or demonstrations.

4. *Reproducibility of social action*. Social media allow for a permanent re-enactment of social action; they also change their fruition by the public, reiterating it with two downsides: first, the life cycle of an item on social media is very short, and second, social media tend to work as 'echo chambers', which means that online discussion tends to take place within groups of like-minded individuals, consciously or not, avoid debate with their cultural or political adversaries. (Lovink, 2011, p. 2)

Moreover, the use of social media allows us to consider that the non-linear life of the cycle of online posts means that the items can re-surface in other contexts, re-starting the circle of virtual simulation (Milan, 2015b, p. 7). This idea is similar to what Walter Benjamin (1936) observed for art works in times

of mechanical reproduction. Benjamin contended that the fact the action can be reproduced over and over again undermines its authenticity:

> The here and now of the original underlies the concept of its authenticity […]. The whole sphere of authenticity eludes technological—and of course not only technological—reproduction. But whereas the authentic work retains its full authority in the face of a reproduction made by hand, which it generally brands a forgery, this is not the case with technological reproduction. The reason is twofold. First, technological reproduction is more independent of the original than is manual reproduction […] second, technological reproduction can place the copy of the original in situations which the original itself cannot attain (Benjamin, 2008/1936, p. 21)

For Benjamin, the reproducibility encompassed that media images no longer had a unique place in time, which coincided with the increased mobility (Kaun, 2015, p. 101). In the case of social media, the reproduction by means of 'shares' and 're-tweets' takes something from the original by changing its context (Milan, 2015b, p. 7). Related to the globalization debate, media technologies came to be understood as annihilating space: for example, shortening distances connect remote areas (Kaun, 2015, p. 90). The fundamental argument is that media technologies are freeing us from the boundaries of space and, according to Vincent Mosco (2004), constitute the end of the geography:

> [computer communication] ends geography by completing a revolution in the process of transcending the spatial constraints that historically limited the

> movement of information […] The convergence of computer and communication technologies permits people to meet anywhere at any time, thereby making possible the ubiquitous exchange of information from the simplest two person exchange to the operation of a multinational conglomerate with its vast requirements for moving information and ideas rapidly, efficiently and with close to complete security. (Mosco, 2005, p. 85)

In line with Mosco, Virilio (2006) suggests that 'space is no longer in geography—it is electronics'. In that context, politics become less about physical space, but about the time regimes of technologies, which is what he calls a shift from geo- to chrono-politics (Kaun, 2015, p. 90).

The Canadian economist and media theorist Harold Innis considered both time and space as central configurations of civilizations and, as he suggests that premodern societies were characterised by a bias, while modern societies were obsessed with space, that is, the expansion over large territories (Kaun, 2015, p. 99). Innis distinguishes between media technologies that emphasise time and those that emphasise space:

> Media that emphasizes time are those that are durable in character, such as parchment, clay, and stone […] Media that emphasize space are apt to be less durable and light in character, such as papyrus and paper. The latter are suited to wide areas in administration and trade. (Innis, 2007/1950, p. 26)

According to Kaun (2015, p. 90), global connectedness in real time could be understood as a further expansion of the spatial bias that Innis identified for modern societies toward a hyperspace bias. As André Jansson (2007) has pointed out, hyperspace biased communication not only emphasises

connections over space, but also questions the boundaries and constitution of space. Thus, social media are crucial for social movements, making it possible to connect over vast distances.

At the same time, the domination of space by certain actors often intersects with the domination of media technologies (Kaun, 2015, p. 91). An ideological move from space bias to hyperspace bias is based on the assumption that social media 'blur the boundaries not only between perceived and/or conceived spatial categories (public-private, local-global, etc.), but also between the processes (material, symbolic, and imaginary) that constitute space itself' (Jansson, 2007, p. 185).

Related to this overlap, discussions about 'social media' such as Facebook, YouTube, Twitter or Weibo have in recent years often been discussions about power (Fuchs, 2015: 16). The rise of these platforms has resulted in public discussions of the implications of these media for the political realm. There are, on the one hand, more optimistic and, on the other hand, hand more sceptical views (Fuchs, 2012, p. 777).

The techno-optimistic position sees mainly positive impacts of social media on politics and infers that social media strengthens democracy and the public spheres. In the contexts of the 2009 Iran protests, the conservative blogger Andrew Sullivan claimed that 'the revolution will be twittered'. He opined

> that a new information technology could be improvised for this purpose so swiftly is a sign of the times. [...] You cannot stop people any longer. You cannot control them any longer. They can bypass your established media; they can broadcast to one another, they can never organize as never before. (Sullivan, 2011 ¶ 2)

Wael Ghonim, an Egyptian activist who played an important role during the 2011 Egyptian uprising, explains in his book *Revolution 2.0. The Power of the People is Greater Than the People in Power* that he 'found it [the Internet] to be the key vehicle to bringing forth the first spark of change […]. It is a means of communication that offers people in the physical world a method to organise, act, and promote ideas and awareness. The Internet was going to change politics in Egypt' (Ghonim, 2012, p. 133). It is in this sense that Castells claims, 'the networked movements of or time are largely based on the Internet' (Castells, 2015, p. 257).

At their extreme, technologically deterministic arguments link the properties inherent in a technology to the utopian or dystopian futures that these properties will introduce in society. Technologies reflect characteristics of the society in which they are produced. However, technologies are not entirely socially, economically or politically determined (Gillan et al., 2008, p. 151).

Authors sceptical of such claims have stressed that social media are in contemporary society embedded into structures of control and domination (see, e.g., Fuchs, 2015: 17). Malcolm Gladwell writes that online activism only succeeds 'not by motivating people to make a real sacrifice but by motivating them to do the things that people do when they are not motivated enough to make a real sacrifice' (Gladwell, 2010). Evgeny Morozov argues that the notion of a 'Twitter Revolution' is based on a belief in cyber-utopianism, 'a naïve belief in the emancipatory nature of online communication that rests on a stubborn refusal to acknowledge its downside' (Morozov, 2011, p. xiii). In that sense:

> it became clear that the Twitter Revolution so many in the West were quick to inaugurate was nothing more than a wild fantasy […] Iran's Twitter Revolution revealed the intense Western longing for a world where information technology is the liberator rather than the oppressor, a world where technology could be harvested to spread democracy around the globe rather than entrench existing autocracies. (Morozov, 2011, p. 5)

In contrast to Morozov and Gladwell's accounts, Paolo Gerbaudo criticises their approaches for adopting an essentialist vision of social media. As Gerbaudo argues,

> as being automatically either suitable or unsuitable as means of mobilisation. These approaches tend to look at social media in the abstract without due attention to their invention in specific local geographies of action or their embeddedness in the culture of social media adopting them. (2012, p. 5)

Morozov shows that solutionism is a typical ideology of Silicon Valley entrepreneurs and intellectuals who glorify the Internet as being the solution to societal problems or what is seen as societal problems and may in fact not be problems at all (Fuchs, 2012, p. 17).

As Christian Fuchs has points out,

> social or other media neither result in positive or negative consequences. They do not act. They do not make society. They do not have one-dimensional impacts. Media are systems that are in a complex manner embedded into antagonistic economic, political and cultural power structures that are antagonistic […] Social media are spaces where media power and

> counter-power are played out. Dominant platforms such as Facebook, Google/YouTube or Twitter are privately owned and there are economic, political and ideological forms of media power at play. (Fuchs, 2012, pp. 17–18)

The causal relationship of media and technology, on the one hand, and society, on the other, is multidimensional and complex: a specific media or technology has multiple, at least two, potential effects on society and social systems that can co-exist or stand in contradiction to each other (Fuchs, 2012, p. 20). As we will explain later in this dissertation, the Tunisian revolution was a revolution against the neoliberal system's multidimensional injustices, in which social media were used as a tool of information and organisation, but was not the cause of the revolution. Christian Fuchs appropriately explains that social media are embedded in contradictions and the power structures of contemporary societies. That is,

> social media have contradictory characteristics in contradictory societies: they do not necessarily and automatically support/amplify or dampen/limit rebellions. But rather pose contradictory potentials that stand in contradictions with influences by the state, ideology, capitalism and other media. Social media are not the causes of societal phenomena. They are rather a mirror of the power structures and structures of exploitation and oppression that we find in contemporary society. They are tools of communication embedded in power structures. They can both play a role for exerting control, exploitation and domination, as well as for challenging asymmetric power structures of domination and exploitation. And in actual reality they do both at the same time. (2012, p. 21)

Emiliano Treré (2015a, p. 176), who states that social media are complex ecologies crossed by frictions and frustrations, traversed by clashes and conflicts, supports this point of view, for example. In that sense, the key role of social media is not only provide a the organisational infrastructure in which protests emerged and coordinated, but also 'in constituting the communicative ecologies where the expressive forms of communication that characterised the younger networked generations, are manufactured, shared, and appropated' (Treré, 2015b, p. 906). Thus, being critical of social media means understanding their imbrication with the process of communicative capitalism, as well as recognizing that the conflict within social media operates, shapes, and limits the practices of social media protests.

2.2.4 The mediation opportunity structures

Drawing on previous work undertaken by Cammaerts (2012, 2015), and Cammaerts, Alice Mattoni and Patrick McCurdy (2013), this section integrates the concept of mediation within the field of social movements studies. The mediation opportunity structure for protest movements and activists cannot be separated from the wider political and economic opportunity structures. It both enables and closes down opportunities for resistance, and activists increasingly take this duality into account when surveying their repertoire of contentious action (Cammaerts, 2013, p. 129).

The rise of information and communication technologies (ICT) and social media has unquestionably increased the opportunities for social movements to change the monopoly of mass media (McCurdy, 2013, p. 59). Sydney Tarrow (1998, p. 18) defines the political opportunity structure as 'consistent –

but not necessary formal, permanent or national – dimensions of the political environment which either encourage or discourage people from using collective action'. According to Nancy Thumim (2009, p. 619), the conceptual space delineated by the notion of mediation process 'encapsulates both the detail of specific instances of production, text and reception, and the broader contexts of media use'. Places of mediation refer both the sites of production, and sites of reception, thus, the connection between both (Couldry, 2004). In line with Alice Mattoni and Emiliano Treré (2014, p. 259), this definition relies on two relevant meanings: on one hand, the double-articulation about the nature of media as both objects and message (Silverstone, 1994), and, on the other hand, the 'existence of *media people* that produce media messages on a regular basis for a specific media organizations and institutions' (Mattoni & Treré, 2014, p. 259, added emphasis).

Mediation is a useful concept that enables us to connect the various ways in which media and communication are relevant to protest and activism (Cammaerts, 2013, p. 118). The concept of mediation has been central in the Latin-America tradition, especially since the publication of Jesús Martin-Barbero's book *De los medios a las mediaciones: comunicación, cultura y hegemonía* (translated in English as *Communication, Culture and Hegemony: From the Media to Mediation*, 1993, but first published in 1987). As Martín-Barbero argues 'communication began to be seen more as a process of mediation than of media, a question of culture and, therefore, not just a matter of cognitions but of re-cognition' (Martín-Barbero, 1993, p. 2). In Martín-Barbero's account, the concept of mediation entails looking at how culture is negotiated and becomes an object of transactions in a variety of contexts, thus, mediations could be considered a social

interface, a place from which it is possible to perceive and understand the interactions between the space of production and the space of reception (Scolari, 2014, p. 1098). Moreover, as Martín-Barbero has pointed out, mediation can also be seen as 'the articulation between communication practices and social movements and the articulation of different tempos of development and practice' (Martín-Barbero, 1993, p. 188).

According to Roger Silverstone (2002, p. 762), the modern world has witnessed a progressive technological intrusion into the conduct of everyday life, of which the most recent and most significant manifestations have been media technologies. Everyday life can be considered as a specific sphere in which cultural processes take shape and are given meaning by individual subjects (Bengtsson 2007, cited in Kaun & Fast, 2014, pp. 13). The everyday constitutes the surroundings for experiences that are routine and concrete, context-dependent and socially constructed (Kaun & Fast, 2014, p. 13). By everyday life, in line with Lefebvre, we mean

> what is humble and solid, what is taken for granted and that of which all the parts follow each other in such a regular, unvarying succession that those concerned have no call to question their sequence; thus it is undated and (apparently) insignificant; though it occupies and preoccupies it is practically untellable, and it is the ethics underlying routine and the aesthetics of familiar settings (Lefebvre 1991, p. xxvi)

Thus, technologies have become central to the ways in which individuals manage their everyday life. According to Thompson (1995), these technologies enabled processes of communication and meaning construction and these processes are processes of mediation. As Silverstone (2002, p. 762) has

pointed out,

> [Mediation] describes the fundamentally, but unevenly, dialectical process in which institutionalised media of communication are involved in the general circulation of symbols in social life [...] Mediation is dialectical because while it is perfectly possible to privilege those mass media as defining and perhaps even determining social meanings, such privileging would miss the continuous and often creative engagement that listeners and viewers have with the products of mass communication. And it is uneven, precisely because the power to work with, or against, the dominant or deeply entrenched meanings that the media provide is unevenly distributed across and within societies.

Thus, as Silverstone (2002) suggests, while the process of mediation is dialectical (balancing potential opportunities and structural constraints), it is also asymmetrical and uneven; some actors are more equal than others (Cammaerts, 2012, p. 218). The demonstrable improvements that ICTs can bring to the organisations mean that these technologies are quickly integrated into everyday activities (Gillan et al., 2008, p. 136).

Through the concept of double articulation of mediation, Silverstone (1994) extends mediation beyond representation and symbolic power (Cammaerts et al., 2013, p. 4), arguing that processes of mediation can be understood us as material objects with reference to technology and the everyday, and the discursive Silverstone, 1994) in the sense of Gramsci's ideological war of position.[1]

[1] For Antonio Gramsci (1971, p. 120), the concept of a war of position means the slow, hidden conflict, where forces seek to gain influence and power. Ideology, then, serves as a central element of war of position.

Cammaerts (2012, p. 118) asserts that this double mediation enables us to consider media and the production of content in conjunction with technology, as well as the communication strategies and media practices of citizens and activists. As Sonia Livingstone argues,

> through the concept of double articulation, Silverstone (1994) contrasts the analysis of the media qua material objects located in particular spatiotemporal settings with the analysis of the media qua texts or symbolic messages located within the flows of particular socio-cultural discourses, precisely in order to demand that we integrate the two. By implication, the public is also doubly articulated as consumer-viewer or, for new media, consumer-user. (2007, p. 2)

Cammaerts (2012, p. 119) proposes to adopt the mediation opportunity structure as an overarching concept, semi-independent from the political opportunity structure. Cammaert's model of mediation opportunity structure comprises the media opportunity structure, the discursive opportunity structure, and the networked opportunity structure.

The logic of self-mediation

As a starting point, Cammaerts (2015, p. 88) takes Foucault's definition of technologies of the self. Foucault (1997) explains the technologies of the self in relation to the way in which individuals internalise rules and constraints. According to Foucault, they

> permit individuals to effect by their own means or with the help of others a certain number of operations on their own bodies and souls, thoughts, conduct, and way of being, so as to transform themselves in order to attain a certain state of happiness, purity, wisdom, perfection, or immortality. (Foucault, 1997, p. 225)

Foucault identifies three distinct Stoic technologies of the self: (1) disclosure, (2) examination, and (3) remembrance. The first one, disclosure, relates to what Foucault (1997, p. 234) called 'the cultivation of the self', the second, examination, makes 'adjustments between what he wanted to do and what he had done, and to reactive the rules of conduct' (ibidem, p. 237). Finally, remembrance, refers to capture and record, thus is, the memorizations of deeds' (ibidem, p. 247).

Cammaerts (2015, p. 89) takes the Foucault's view as a metaphor

> pointing to the way in which social media platforms and the communicative practices enable can potentially become constitutive of the construction of collective identities and have become highly relevant in view of disseminating, communicating, recording, and archiving a variety of movement discourses and deeds [...] technologies of the self-mediation are, in other words, the tools through which a social movement becomes self-conscious.

Following to Cammaerts (2015, p. 91), we can distinguish six inter-connected but analytically distinct self-mediation logics for activist and protest that align with the three Stoic technologies of the self.

The first logic refers to the need for protest movements to

disseminate as widely as possible their various movement discourses through a variety of channels. The second logic is related to the crucial task of movements to mobilise and recruit for (direct) actions, online as well as offline. The third logic has to do with the need of movements to organise themselves internally, which is increasingly mediated through communication technologies. The fourth logic of self-mediation refers to instant, on-the-spot coordination of direct actions, which also takes place on or through social media platforms. The fifth logic relates to the act of self-recording protest events, facilitated among others by mobile technologies. The final self-mediation logic is the need to archive protest artefacts (Cammaerts, 2015, p. 91).

Following to Melucci (1989, p. 60), contemporary movements have a self-referential nature in their organisational forms. The organisational forms of movements are not just instrumental, that is, employed for their goals, they are a goal themselves. Because collective action is focussed on cultural codes, the form of the movement is itself a message, a symbolic challenge to the dominant codes.

The self-mediation logics suggested by Cammaerts (2015, pp. 90–91) can be related with the three Stoic of the self-technologies proposed by Foucault (1997, pp. 234–247) as follows:

Stoic	Logic	Aim
Disclosure	First Second	To disseminate To mobilise
Examination	Third Fourth	To organise To coordinate
Remembrance	Fifth Sixth	To record To archive

Table 3. The three self-mediation logics and the three Stoics of the self-technologies. Source: Cammaerts, 2015, p. 91

2.2.5 The affordances and constraints of social media for protest movements

According to Lorenzo Coretti (2014, p. 27), affordances are not to be intended as mere possibilities for action provided by the design of technology. Rather, they arise in the interaction between users and technological tools; thus, they result from the interaction between the capacities of the technology and the capacities, goals, and culture of the user (ibidem).

The term 'affordance' was coined by Gibson (1977) to explain how the environment surrounding an animal constitutes a given set of affordances, which are both objective and subjective (Cammaerts, 2015, p. 90). As Gibson explains (1977, p. 75), they are a 'unique combination of qualities that specifies what the object affords us', and they represent opportunities or potentialities for a set of actions, which we perceive or not. Gibson indicates that

> The capacity to attach something to the body suggests that the boundary between the animal and the environment is not fixed at the surface of the skin but

> can shift. More generally it suggests that the absolute duality of 'objective' and 'subjective' is false. (Gibson, 1986 p. 41)

Thus, the objects that we use become an extension of ourselves. According to Cammaerts (2015, p. 90), the notion of affordances became popular in technology studies to make sense of our relationship with and our shaping of technologies. ICTs such as the Internet or mobile technologies, and the social media platforms that run on them, thus hold a set of affordances that are inherent to them but need to be recognised as such by activists. Suggesting a technology's affordances, social action has been seen as 'a nondeterministic way out of these two polar interpretations of technology use' (Hogan, 2009, p. 24). Thus, the communication field has used affordances to describe communication technologies as placing power in the hands of the users, rather than with the technologies or their designers (Nagy & Neff, 2015, p. 2).

As Neff et al. (2012, p. 309) understand it, affordance is based on a contradiction since it presumes, but does not confront, the distinction between matter and mind, between materiality and discourse. In this regard, Gibson argues that

> an important fact about the affordances of the environment is that they are in a sense objective, real, and physical, unlike values and meanings, which are often supposed to be subjective, phenomenal, and mental. But, actually, an affordance is neither an objective property nor a subjective property; or it is both if you like . . . It is equally a fact of the environment and a fact of behaviour. It is both physical and psychical, yet neither. An affordance points both ways, to the environment and the observer. (1986, p. 129)

From this perspective, use of networked technologies by activists and protest movements situates itself at the 'intersection between social context, political purpose and technological possibility' (Gillan et al., 2008, p. 151).

A central question that needs to be addressed in this context is the relation between communicative affordances and the constraint of social media within self-mediation logics. Thus, according to Cammaerts (2015, p. 90), on the one hand, social media enables instant, real-time forms of communication, which tend to be fleeting (unless recorded). However, a delayed asynchronous form of communication is also possible, which is potentially more permanent and easier to archive. On the other hand, social media affords both public or open forms of communication and private or inward forms. Social media combines one-to-many, one-to-one and many-to-many forms of communication. In that sense, one of the key affordances of social media is that it can help to empower citizens in business-society relations in their capacity to grant increased visibility to citizens (Uldam, 2015, p. 146). As we can see in Table 4, this capacity produces a matrix of affordances that can be attributed to various types of social media leading to a variety of possible actions for protest movements and activists.

	Real-Time	Asynchronous
Public/Outward	Streaming/Twittering	Blogs, comments, iLike, repositories
Private/Inward	Chatting, VoIP	Email, SMS, Forum

Table 4. Communicative Affordances of Social Media. Source: Cammaerts, 2015, p. 90

As Cammaerts (2015, p. 92) has pointed out, when we combine the affordances of social media with the sets of logics of self-mediation, it begins to seem that social media plays a variety of roles for protest movements at different levels.

The asynchronous affordances regard the strategies of disclosure. Thus movements use technologies of self-mediation to construct and sustain collective identities, to articulate a set of demands and ideas and in effect to become self-conscious as movement (ibidem). At the same time, their asynchronous nature also enables the capturing and recording of movement discourses, protest events, slogans and the subsequent memorization of them, the combination of which in turn enables remembrance. In that sense, technologies of self-mediation operate in two dimensions: first, playing a crucial role in archiving the past, and, second, transmitting practices tactics and ideas across space and time (ibidem).

This asynchronicity is also relevant for private forms of communication (Cammaerts, 2015, p. 94). It refers to the establishment of internal communication channels between the core and the periphery of a movement and within the core of a movement. Moreover, it is very much related to a permanent process of examination and adaptation to new circumstances and self-reflection on the precise articulation of movement discourses and at times also mediated decision-making (ibidem).

Social media also affords real-time public communication. When it concerns public or outward forms of communication, this ability enables activists and protest movements to, in effect, broadcast in real time (Cammaerts, 2015: 94). For instance, during the so-called Arab Spring, social media became broadcasting tools in the hand of activists.

Mainstream media broadcasters across the world begin to use the protesters' updates (Hermida et al., 2014). Thus, protesters' strategies of disclosure became part of mainstream media coverage and archives feeding remembrance (Cammartes, 2015, p. 94). Moreover, as Howard and Hussain (2011, p. 41) have pointed out 'digital media helped to turn individualised, localised, and community-specific dissent into a structured movement with a collective consciousness about both shared plights and opportunities for action'.

The last category is, hence, private real-time communication, according to Cammaerts, which he says

> is most suited to it examination practices or the organization and coordination of protest movement, at times replacing face-to-face encounters between figureheads of movements and enabling point-to-point communication between two or more members of the movement discourses and action, and to make adjustment, if need be. (2015, p. 95)

This last point brings us to the constraints that are inherent to the use of social media by collective actors. Technologies of self-mediation not only afford but also constraint and limit. According to Cammaerts (2015, p. 96), these constraints should not be defined in an exclusively negative way, but rather, as underlined by some other scholars, 'the conditions and relationships amongst attributes which provide structure and guidance for the course of actions […]. Constraints are not the opposite of affordances; they are complementary and equally necessary for activity to take place' (Kennewell, 2001, p. 106).

The first constraint that can be identified as related to the access. Control over the production, accumulation and

circulation of information depends on codes that organise and make information understandable. In complex societies, power consists increasingly of operational codes, formal rules and knowledge. Access to knowledge becomes a kind of power and conflict (Melucci, 1989, p. 84). Thus, in actual societies, the digital divides, as well as the skill, remain a reality when it comes to access and types of usage of the Internet and of social media platforms (Cammaerts, 2015, p. 97). As Christian Fuchs has pointed out (2012, p. 776), we can doubt whether we do in fact live in the 'Internet age': 46.4% of the world population use Internet-. Taking a media- or communication-centric position neglects the broader context of society, its political economy. One can therefore question the move to speak of a 'media age' (ibidem).

Furthermore, information can be online without reaching many citizens, in part because they do not know of its existence because the information is structurally invisible, or because they are not interested in it or do not find it meaningful (Fuchs, 2012, p. 781). In this regard, we should take into account that the use of social media requires a set of skills and prior knowledge.

Thus, the use of social media, especially in terms of disclosure, can be approached as a form of narrowcasting. Cammaerts (2015, p. 98) suggests that this approach implies a high probability that activists and protests movements which exclusively use social media reach only those who are already more or less aligned with the aims and goals of the movement.

The second constraint to which we refer is that social media are also commercial and corporate spaces. According to Cammaerts (ibidem), nowadays we are experiencing a de-ideologisation of social, economic, and political struggles. In

this vein, Bauman discusses that

> The distinctive feature of the stories told in our times is that they articulate individual lives in a way that excludes or suppresses (prevents for articulation) the possibility of tracking down the links connecting individual fate to the ways and means by which a society as whole operates. (Bauman, 2001, p. 9)

This de-ideologisation of social struggles and lack of examination in relation to the use of social media for activist purpose is not entirely unsurprising, given that the Internet and social media in particular are first and foremost corporate spaces promoting capitalist values (Cammaerts, 2015, p. 100). In that sense, activists show vulnerability when relying so much on corporate structures that own the Internet and on popular social media platforms.

Finally, the last constrain that we would like to remark upon is that social media is highly susceptible to state control and surveillance (Cammaerts 2015, p. 103; Fuchs et al., 2012; Leistert 2013). Corporate platforms' users have effectively lost all control over their freedom of expression after their acceptance of corporate terms of services (Leistert, 2015, p. 47). This weak position and diminishment of agency in the corporate algorithm machines becomes apparent when all of a sudden accounts are deleted (Dencik, 2015). Thus, as Liester has it (2015, p. 47), 'protest movements rely on their ability to criticize established power structure and the emancipation via values and norm by subjects. It is apparent that within corporate platforms only a self-imposed censorship can limit the risk of a loss of communication means'.

As we have noted above, a key affordance of social media is their potentially to grant increased visibility to citizens.

However, this mediated visibility can be doubly construed as granting both power and vulnerability to citizens: as social media grant visibility to citizens, they simultaneously enable companies to monitor their activities on social media (Uldam, 2015, p. 146). Companies, thus, have greater resources to commit to monitoring critics on social media, which enables them to react swiftly with counter-mobilising strategies that serve the purpose of diffusing any criticism that might generate public or media attention (Kraemer et al., 2013).

Cammaerts summarizes the ambivalent role of social media as follows:

> while power (and surveillance) is omnipresent, so is resistance. In a sense, throughout history we can witness a permanent dialectic between the appropriation of and experimentation with various forms of media and mediations by resisting subordinates actors, and the subsequent attempts of dominant forces in society to close down these emancipatory fissures, after which new ways to circumvent and pervert the limits and controls are sought. Long may it continue! (2015, p. 107)

2.2.6 Conclusion

The logic of the connective action, as proposed by Bennet and Segerberg (2012), is based in the idea that communication networks become the organisational form of political action. This account is similar to the idea of 'networked movements' proposed by Juris (2008). In the same way, the concept of Juris is grounded in Castell's theory of network society. The problem with these earlier accounts is that they put a very

strong emphasises on the capacity of the Internet to support social movements. It is true that in the most recent wave of movements, which started in 2010 in Tunisia, Internet became a powerful tool for mobilisation, but the relationship between social media and social movements is in constant negotiation, and it is defined by complex dialectics between old and new forms of political protests. As Christian Fuchs (2012) argues, social media have contradictory characteristics in contradictory societies. They do not necessarily support or limit rebellion.

The concept of mediation structures, as introduced by Cammaerts (2012), allows us to think about social media in its duality. On the one hand, according to Silverstone (2002), at a material level, social media are technologies of our everyday life. On the other hand, at the symbolic level, social media are embedded into a struggle to gain position or influence that can develop counter-hegemony. This relationship is what Gramsci called a 'war of position'. In this struggle, social media presents present some affordances, and they are important for social movements, but also it presents constraints for the movements, with two of the most important ones being limitation of access, and surveillance and state control.

CHAPTER 3

Methods

3. Methods

Introduction

The aim of this section is to illustrate the objectives of this study and explain the methods adopted in this research. The research questions are initially explained. Secondly, we define the research's general approach and, finally, the mixed approach, which combines quantitative and qualitative methods. Subsequently, we explain the data collection process, as well as the sample used in this study.

Finally, we present the different methods that have been used to achieve the objectives of this research and, thus, answer the research questions.

3.1 Research questions, objectives and methods

The aim of this section is to set out the research questions that this study will try to answer, and related them to the objectives and methodologies applied in this thesis. The specific

methodologies are explained in more detail in Sections 3.5, 3.6 and 3.7.

The research questions are closely linked with the objectives of this dissertation and have guided all the investigate process. Our study is constructed around a three research questions. The research questions are:

RQ1: How was the information diffused on Twitter before and during the Arab Spring in Tunisia?

RQ2: How was the activist network built on Twitter before and during the Arab Spring in Tunisia?

RQ3: How were the frames and ideas presented on Twitter before and during the Arab Spring in Tunisia?

As we have noted above, these research questions are closely linked to our research objectives. The main objective of this thesis is to explore the use of digital networks, specifically Twitter, after and during the 2010–2011 uprising in Tunisia. To be specific, this study focusses on the following sub-objectives:

1. giving an account of the diffusion process on Twitter before and during the 2010–2011 uprising in Tunisia,

2. identifying the information flow and the central nodes that controlled the information in Twitter,

3. discerning the moments, leading figures and ideas presented, and

4. understanding who was using which symbols and frames of interpretation recurrently.

To respond these research questions and objectives, we applied SNA (RQ1 and RQ2), qualitative content analysis (RQ3), and semi-structured interviews (RQ1, RQ2 and RQ3). We develop

these methods below. As demonstrated in Table 5, the research questions, the objectives and the methodologies applied in this study relate to each other as follows:

Research Question	Objective	Methodology
RQ1 How was the information diffused on Twitter before and during the Arab Spring in Tunisia?	**(1)** Giving an account of the diffusion process on Twitter before and during the 2010–2011 uprising in Tunisia	Social Network Analysis
RQ2 How was the activist network built on Twitter before and during the Arab Spring in Tunisia?	**(2)** Identifying the information flow and the central nodes that controlled the information in Twitter	Social Network Analysis
RQ3 How were the frames and ideas presented on Twitter before and during the Arab Spring in Tunisia?	**(3)** Discerning the moments, leading figures and ideas presented	Qualitative Content Analysis
	(4) Understanding who was using which symbols and frames of interpretation recurrently	Semi-structured interviews

Table 5 Research questions, objectives and methodology

3.2 Research approach

Induction and deduction are form of logical reasoning that are used in every type of research, qualitative and quantitative. They are neither concepts, nor methods or tools of data analysis, but means of connecting and generating ideas (Reichertz, 2013, p. 123). In order to explore the case of this research, a mainly inductive approach was necessary; that is, the outcomes discussed here relied on the patterns observed in the analysis of

a case study. However, although the main approach was inductive, there are some elements in this research that relies upon deductive logic.

Deductive logic works from the more general to the more specific. On the other hand, inductive logic moves from specific observations to broader generalizations. According to Eal Babbie (2010, p. 23), deductive logic 'moves from (1) a pattern that might be logically or theoretically expected to (2) observations that test whether the expected pattern actually occurs'. As we have noted in the Chapter 2, Section 2.2.3, the academic debate about movements and the use of social media is relatively recent (see, for example, Cammaerts, 2012). Our purpose here is to analyse the patterns of communication and interaction on Twitter before and during the Arab Spring in Tunisia and to establish whether or not there is a correspondence with the previous literature about social movements and social media.

Following Earl Babbie, inductive logic 'moves from the particular to the general, from a set of specific observations to the discovery of a pattern that represents some degree of order among the given events' (2010, p. 23). In this research, I observed the behaviour of users on Twitter in a very specific moment in order to establish some pattern or general outcomes about the diffusion of information within a social movement in their latency and visible phase.

Thus, this study can be considered exploratory research. Exploratory studies rely on both deductive and inductive logic. As is often in social sciences, it is in fact necessary to rely on both, as each process can mutually reinforce the other (Coretti, 2014, p. 122).

3.3 Case study

The methodology of this research is based on a case study and a triangulation of both quantitative and qualitative methods, namely social network analysis, content analysis and in-depth semi-structured interviews.

According to Creswell,

> case studies are a strategy of inquiry in which the research explores in depth a program, event, activity, process, or more individuals. Cases are bounded by time and activity and researchers collect detailed information using a variety of data collection procedures over a sustained period of time. (Creswell, 2009, p. 13)

As Linda T. Kohn has pointed out (1997, p. 3), researchers may use case study methodology in order to

> *explore* new areas and issues where little theory is available or measurement is unclear; to *describe* a process or the effects of an event or an intervention, especially when such events affect many different parties and to *explain* a complex phenomenon. (Her emphasis)

According to David A. Snow and Danny Tom, a case study is a study that focusses empirically and analytically on a case of something, that is, on a single instance or variant of some empirical phenomenon rather than on multiple instances of that phenomenon (2002, p. 147). The case study is not a method, *per se*. Rather, the case study is more appropriately conceptualised as a research strategy that is associated with a number of data gathering methods or procedures (ibidem, p. 151).

The case study in this research, the Arab Spring in Tunisia, aims to provide empirical evidence concerning the use of digital networks by protesters and to contribute to help bridge social

movement studies and media and communication studies (Cammaerts, 2012, p. 117). The Arab Spring was a revolutionary wave of demonstrations, protests and riots across the Arab world. Each country has its own context, thus this study focusses on Tunisia, mainly for two reasons. First, Tunisia was the first country in which the uprising rose, on 17 December 2010, when Mohamed Bouazizi, a fruit vendor in Sidi Bouzid, set himself on fire in a public building. The second reason is that in the aftermath of the uprising, Tunisia started a transitional process toward democratization, providing a clear timeframe for study: 17 December 2010, when Mohamed Bouazizi set himself on fire, to 14 January 2011, when the ex-President Ben Ali left Tunisia.

Due to the uprising, and according to Snow and Tom (2002, p. 161), this research presents a single case that is not based on studies of one or more subcases. The case is the movement as a whole, and the objective is to situate it in time and place, in history that is, and to say something about its beliefs, its appeal and diffusion, and its operations.

Procedural or methodological triangulation is a defining feature of this case study. The use of mixed-methods focusses on the methodological implications of merging quantitative and qualitative data and offers some useful categorization of the various ways these studies can be conducted (Belloti, 2015, p. 23). As Pablo Aragon et al. have pointed out (2012), research on social media has been conducted largely within two distinct theoretical and methodological approaches: first, theories and methodologies whose aim is to explicitly describe and measure variables, answering questions such as ‘who is talking?’, ‘when?’, ‘where?’, and ‘to whom?’ Second, social scientists attempt to understand the motivation underlying structural patterns, aiming to answer questions such as ‘what is being said?’, ‘why?’,

'how?', and 'with what feeling?' Only by answering both sets of offer a deeper understanding reached (ibidem).

In this study, we propose an integrated approach to the study of social movements and its relation with the use of digital networks that merges quantitative and qualitative methodological tools. Thus, SNA plays the part of the quantitative tool and content analysis and interviews the part of the qualitative tool.

As Elisa Bellotti (2010, p. 2) indicates, quantitative methods search for patterns of regularities, while qualitative methods explore nuances and details. Quantitative methods are more suitable to analyse phenomenon a macro level, whereas qualitative methods have been largely employed to observe phenomenon a micro level.

According to Crossley, the quantitative tools of SNA,

> process the hurly burly of social life in such a way as to create a very abstract, formal and structural mapping of it. This constitutes the great strength […]. It is equally a weakness, however, because for many sociological purposes SNA's mapping is too abstract, overly formal and insufficiently attentive to inter-agency and process. It filters out important elements of social life, standardising observations in a way that sometimes obscure important concrete particulars. (2010, p. 2)

On the other hand, qualitative methods

> whose limitations are that they are often overly sensitive to concrete particulars, fail to standardise and lack the means to identify structures provide an important complement here […] [U]sed in conjunction with quantitative approaches their weakness become strengths;

> necessary 'checks' upon the limits of quantification and means of pursuing an analysis along important paths that quantitative analysis cannot follow (Crossley, 2010, p. 2).

Related to network movements, according to Ann Mische (2003, p. 258), 'it is not just networks or membership that matter, but also how these relationships are represented, activated or suppressed in social settings'. The obvious implication, given that the 'doing' and 'representing' networks is not captured in sociometric graphs and matrices, is that network analysis must supplement its procedures for mapping and measuring networks with more qualitatively sensitive forms of analysis (Edwards & Crossley, 2009, p. 40). As Emirbayer and Goodwin argue,

> Network analysis gains its purchase on social structure only at the considerable cost of losing its conceptual grasp upon culture, agency and process. It provides a useful set of tools for investigating the patterned relationships between historical actors. These tools, however, by themselves fail ultimately to make sense of the mechanisms through which these relationships are reproduced or reconfigured over time. (1994, pp. 1446–1447)

They add,

> Our position is that a truly synthetic account of social processes and transformation that takes into consideration not only structural but cultural and discursive factors will necessarily entail a fuller conception of social action than has been provided thus far by network analysis (Emirbayer & Goodwin, 1994, p. 1447).

In addition, as Crossley has pointed out,

> Network structure is not the whole story, even for

> 'network effects' and mechanisms, and for that reason we need to supplement methods of formal network analysis with qualitative observations about what is 'going on' within a network. (Crossley, 2010, p. 18)

Quantitative tools are important, firstly, because relational data are difficult to store, retrieve and analyse by conventional qualitative means. Graphs and adjacency matrices provide relatively simple means of recording, storing and analysing relational data (Crossley, 2010, p. 4). Secondly, matrix and graphs are tools which take abstract form, and thereby they simplify the messiness of everyday interactions and relations. However, the limitations of quantitative methods can be summarised in two points. Crossley offers that

> the abstraction and simplification involved in an adjacency matrix, invaluable though it is, can for certain important purposes amount to over-abstraction and oversimplification. (Crossley, 2010, p. 6)

He adds,

> the process of abstraction brackets out important data which are essential to both a proper sociological understanding of social networks [...] and to a proper understanding of many key concepts, measures and mechanisms from the SNA literature. (Ibidem)

Concurrent mixed-method procedures are those in which the researcher converges or merges quantitative or qualitative data in order to provide a comprehensive analysis of the research problem. In this type of design, the investigator collects both forms of data at the same time and then integrates the information in the interpretation of the overall results (Creswell, 2009, pp. 14–15).

The quantitative approach represents relation as numbers that indicate the presence or absence of a specified type of relationship. According to Crossley, reducing relationships to numbers brackets out a great deal of potential empirical material and also distorts them. Relationships are not 'things' that are either absent or present. They are lived histories of iterated interaction which constantly evolve as a function of continued interaction between parties (or significant absences of interaction (Crossley, 2010, p. 8).

On the other hand, a qualitative approach can add an awareness of process, change, content and context (Edwards, 2010, p. 5). As she continues, qualitative approaches generate a range of narrative data on social networks. These data are then analysed qualitatively using content and thematic analysis, and by situating network data within wider contextual findings (ibidem, p. 8).

According to John J. Creswell, the concurrent mixed methods procedures

> are those in which the researcher converges or merges quantitative or qualitative data in order to provide a comprehensive analysis of the research problem. In this design, the investigator collects both forms of data at the same time and then integrates the information in the interpretation of the overall results. (2009, pp. 14–15)

Our position, in that respect, is not one that pits quantitative against qualitative. They are equally necessary to achieve an adequate understanding of the significance of networks in relation to social movement mobilisation (Edwards & Crossley, 2009, p. 41).

3.4 Twitter data

In this section, we address some question about Twitter data. First, we try to explain the conventions, such as retweets or hashtags, that we have taken into account during our analysis. Afterward, we explain the data collection process.

3.4.1 Conversational conventions on Twitter

Twitter is a microblogging platform that was launched in October 2006. By microblogging, we mean 'a form of communication in which users can describe their current status in short posts distribute by instant messages' (Java et al., 2007, p. 56). Twitter allows users to send and receive text-based messages of up to 140 characters, known as tweets (Van Dijck, 2013, p. 70).

According to boyd et al., (2010, p. 1), social media like Twitter has enabled communication to occur asynchronously and beyond geographic constraint, but it is bound by a reasonably well-defined group of participants in some short shared social context. It is thus important to consider the question of the interaction between two dynamic processes: the process of users posting and sharing information, and the process of network evolution (Myers & Leskovec, 2014, p. 914). Interaction, here, is public in terms of being accessible by anyone navigating the page and aiming to reach large audiences (Coretti, 2014, p. 126). As Flanagin et al. have point out,

> personal interaction involves repeated, organized interaction with known others over time and the development of interpersonal relations, in which interaction is centered on sustained interrelationships with others whose specific

> identities or personal attributes matter. (Flanagin et al, 2006, p. 33).

According to Kawamoto (2013, p. 3470), users on Twitter follow other users and read their tweets without any necessary approvals, thereby constructing a directed network among them. Also, users can propagate the tweets of others using a function called retweet, which results in information diffusion.

Following to danah boyd et al. (2010), we can identify certain Twitter conventions. First, Twitter participants began using the @user syntax to refer to specific users. According to Courtenay Honey and Susan C. Herring (2009, p. 2), this use is a form of addressivity. 'Addressivity' can be defined as a user indicating an intended addressee by typing the person's name at the beginning of an utterance, often followed by a colon (ibídem). An example of addressivity is as follows:

> @Katrinskaya and people also still protesting in Tunisia #sidibouzid

The function of such messages is also attention-seeking; it is a specifically intended to alert the mentioned person that they are being talked about (boyd et al., 2010, p. 2).
A significant expansion of Twitter's architecture was the implementation, in late 2008, of 'trending topics'. Trending topics, according to José van Dijck (2013, p. 71) are a feature that enables users to group post together by topic by articulating certain words or phrases prefixed with a hashtag sign (#). For example,

La #Tunisie & la boîte de Pandore http://heresie.hautetfort.com/archive/2011/01/10/la-tunisie-et-la-boite-de-pandore.html … #SidiBouzid

Retweeting is another important practice. Unlike @mentions and #hashtags, the conventions for retweeting are hugely inconsistent. The prototypical way of retweeting is to copy the message, precede by RT and address the original author. For example

RT @benmhennilina Is it true that they announced the closure of schools and universities? #Sidibouzid

However, as boyd et al. (2010, p. 3) has pointed out, there is no universally agreed upon syntax for retweeting. Thus, in our dataset, we also found the following syntax to mark retweets:

Actv @ifikra: Des Citoyens, des victimes, des assassins et des lâches ! par @astrubaal #sidibouzid via @nawaat #... http://is.gd/ks7pu

Via @AnonNewsNet Al Jazeera covers the #Kasserine massacre, consulate explosion http://goo.gl/A7aKn Mirror: http://goo.gl/lqbjS #SidiBouzid

CitJ @GladysChavez: Why I Don't Believe in 'Net Freedom' by @jilliancyork #sidibouzid #netfreedom #anonymous #C... http://jilliancyork.com/2011/01/02/why-i-dont-believe-in-net-freedom/ …

@Emnabenjemaa: RT @Chady2009: يحاول شاب..الخبزة اجل من الانتحار*...https://www.facebook.com/video/video.php?v=132433530151270*

Retweeting effectively highlights the most relevant messages for users. Anyone who retweets a message forwards it to all their followers, sometimes thousands of people. Hence, each retweet substantially increases the range of the original tweet (Poell & Darmoni, 2012, p. 17).

In total, this study has taken into account three variables. First, the hashtag, with the aim to collect the tweets, and then, mentions and retweets with the intention to determinate the social network and the interaction between users.

3.4.2 Data collection and analysis

According to Creswell, qualitative and quantitative data in mixed-methods research 'are actually merged on one end of the continuum, kept separate on the other end of the continuum, or combined in some way between these two extremes' (2009, p. 208). In this study, the mix consists of integrating the two databases (quantitative and qualitative) by actually merging the quantitative data with the qualitative data (ibidem). In a first phase of the research, we analyse the quantitative data (through SNA), and, in the second phase, we will apply qualitative content analysis. The unit of analysis of each phase comes from the same database: the tweets collected before and during the 2010–2011 uprising in Tunisia.

The main source of data about Twitter came from two sources: Topsy Pro- and Twitter Advanced Search. Data were retrieved in two stages. First, data were gathered in the period from December 2009–December 2010 from three hashtags: #ammar404, #manif22mai and #Tunileaks. I decided inductively to collect the data from these hashtags after a previous exploratory period.

Online censorship in Tunisia was known as Ammar 404, referring to the '404 not found error' that appeared when a website was censored. Initially Ammar404 was formed by a small group of bloggers who broke with the tradition of anonymity by posting their pictures on social media, like Facebook or Twitter. The goal of the hashtag was provide to the users the opportunity to denounce the websites that were blocked and censored. Thanks to it, the activist developed a list of censored blogs, and, in this way, they had the control of the blogs that were censored.

The aim of the #manif22mai hashtag was to organise a impactful demonstration in different places, like Tunis, Paris or Montréal on May 22nd for the defence of freedom of expression in Tunisia. In this case, the role of Twitter was to disseminate all the information about the demonstration. This was the first attempt to establish the online-offline linkage. Until that moment, as the digital activist Ben Gharbia (2010) says, 'it was mainly limited to a hard core of digital activists and bloggers who are pushing for a political and social change'. As Lim (2013, 4) noted, Tunisian digital activists are predominantly affluent, highly educated urbanities, and they are more closely connected to global activism than to local struggles. Actually, at a May 22nd protest, hundreds participated in the rallies held in front of Tunisian embassies in Paris, Bonn and New York, but in Tunis only a few dozen showed up to protest (Ben Gharbia, 2010).

The last hashtag of this period is #tunileaks. Tunileaks refers to the Wikileaks cables regarding to Tunisias. The #tunileaks was launched by Nawaat, a Tunisian collective blog which was censored in Tunisia until 14 January 2011.

The sample comprises 4,624 tweets, and the aim is to establish the network of digital activism in Tunisia during the time that

preceded the uprising. This first stage corresponds with what Alberto Melluci called a latency phase. The latency phase of a social movement refers to the day-to-day movement activities, such as preparing protests, fundraising or decision-making processes and developing new cultural codes, reciprocal identification, solidarity ties and emotional investments (Flesher Fominaya, 2010a: 384; 2010b: 298). These actions can serve as catalyst for latent demands (Melucci, 1996: 296).

The time period considered in the second stage ranges from 17 December 2010, when Mohamed Bouazizi set himself on fire and the uprising started, to 14 January, 2011, when the ex-President Ben Ali left Tunisia. Data were collected though the hashtag #sidibouzid, which was the hashtag used on Twitter to spread the news about the uprising (Freelon, 2011). Each day in the period between 17 December, 2010 and 12 January 2011, samples of an average of 1,500 tweets were collected. Between 13 and 14 January, when the #sidibouzid activity spiked, larger samples of 9,700, 18,800, and 16,400 were scrapped. In total 90,657 tweets were collected over the entire period. While these do not represent the entirely of the tweets that were sent during the period, this dataset is sufficiently robust to allow for in-depth analysis.

As we will explain in the following sections, the Twitter data are particularly useful for the research objectives: firstly, to determine the diffusion of the information through the platform and the interaction between users; secondly, in applying content analysis, allow the exploration of what the users were saying, and thus investigation of the nature of the conversation beyond the more descriptive quantitative approach.

Data analysis involved formal network measures, descriptive statistics and qualitative accounts and was conducted in two

steps. The first step of the analysis focussed on the features of dyadic exchanges by looking at the information flow and how the information was disseminated on Twitter, the focus on the centrality of the net, on order to establish who the nodes were which controlled the information flow and how the information was spread. The second step involved qualitative analysis of the data, that is, a qualitative content analysis. This stage focussed not on the way the messages were disseminated but on what these messages said and what frames were used. The qualitative analysis also involved the analysis of the interviews carried out with Tunisian activists.

After the data collection, we divided our analysis into three related stages. In the first stage, we applied social network analysis. Data processing was done by a semi-automatic process. After collecting the data, we generated a .txt document, where each line contained the user, the real name of the user, the data, and the content of the tweet. Due to the high amount of data of our collection, we processed this file in an automatic way and, thus, we obtained a CSV file with six columns: column A provides the user, column B, the hashtags present in the tweet, column C the user retweeted or mentioned, column D the links present in the tweet and, finally, column E the type of tweet (RT: retweet, TW: original tweet). Figures 3 and 4 show an example of our data collection before and after of processing.

```
Haythem El Mekki @ByLasKo 30 Apr 2010 Complet RT @Selim_: #Tunisie : massacre sur
la toile http://bit.ly/bWCRn3 #censure #free404  0 s 0
Jouxstone @letweetiphone 30 Apr 2010 #Tunisie : massacre sur la toile
http://bit.ly/bWCRn3 #censure #free404  0 s 0
Farah @Farahmi 30 Apr 2010 RT @Selim_: #Tunisie : massacre sur la toile
http://bit.ly/bWCRn3 #censure #free404  0 s 0
Selim @Selim_ 30 Apr 2010 #Tunisie : massacre sur la toile http://bit.ly/bWCRn3
#censure #free404  0 s 0
Haythem El Mekki @ByLasKo 30 Apr 2010 That Yes we can shit will get us all killed
RT @escalier7: @ByLasKo vas y fais nous un #free404 en live de MFM :) 0 s 0
Riadh @riadheh 30 Apr 2010 106 photos and counting en 2 jours sur ammar404, + d'1
cinquantaine ont été refusées, c pas mal non  on continue ou on abandonne  #free404
0 s 0
Tarek Kahlaoui @t_kahlaoui 30 Apr 2010 Sur Tunishebdo : ce contrôle ne résistera
pas longtemps http://bit.ly/bsbc3q #Free404  1  0
Souihli™ @Souihli 30 Apr 2010 Tame3 fel 3sal min 3and il ferzazou :)RT:@hama90 if
the strike is over, are they gonna  all the sites #free404 #censure #sayebsala7 0 s
0
Inés @MessyMisss 30 Apr 2010 #free404 RT:@agharass L'envie ronge les envieux comme
la rouille ronge le fer. [Antisthène] http://bit.ly/crNOz3  0 s 0
Hama Charieg @hama90 30 Apr 2010 if the strike is over, are they gonna  all the
sites #free404 #censure #sayebsala7 0 s 0
```

Figure 3. Data before processing

	A	B	C	D	E
1	@ByLasKo	#censure:#Tunisie:#free404	@Selim_	http://bit.ly/bWCRn3	RP
2	@letweetiph	#censure:#Tunisie:#free404		http://bit.ly/bWCRn3	TW
3	@Farahmi	#censure:#Tunisie:#free404	@Selim_	http://bit.ly/bWCRn3	RT
4	@Selim_	#censure:#Tunisie:#free404		http://bit.ly/bWCRn3	TW
5	@ByLasKo	#free404	@ByLasKo:@escalier7		TW
6	@riadheh	#free404			TW
7	@t_kahlaoui	#Free404		http://bit.ly/bsbc3q	TW
8	@Souihli	#censure:#sayebsala7:#free404	@hama90		TW
9	@MessyMiss	#free404	@agharass	http://bit.ly/crNOz3	TW
10	@hama90	#censure:#sayebsala7:#free404			TW
11	@Zinga_	#free404:#3ammar	@Matadorrr		RT
12	@Aymekki	#free404:#3ammar	@messy_miss		TW
13	@MessyMiss	#free404:#3ammar			TW
14	@malekk	#free404	@ifikra	http://tinyurl.com/372jawn	TW
15	@MessyMiss	#Censure:#Ammar:#free404	@Terfous	http://twitpic.com/1jnouu	TW
16	@ifikra	#free404		http://is.gd/bOEqD	TW
17	@MessyMiss	#free404	@snawsi	http://bit.ly/amxkLE	RT
18	@t_kahlaoui	#free404	@escalier7	http://ammar404.tumblr.com/	RT
19	@Souihli	#free404	@ByLasKo:@escalier7		RT
20	@escalier7	#free404	@ByLasKo		TW
21	@hama90	#Censure:#Ammar:#free404	@Terfous	http://twitpic.com/1jnouu	RT
22	@mbourgou	#Censure:#Ammar:#free404		http://twitpic.com/1jnouu	TW
23	@escalier7	#free404		http://ammar404.tumblr.com/	TW
24	@ChangePar	#SayebSala7:#fb:#free404			TW
25	@ChangePar	#SayebSala7:#free404			TW
26	@Zinga_	#sayebsala7:#free404	@Farahmi		RT
27	@Farahmi	#sayebsala7:#free404			TW
28	@escalier7	#free404		http://bit.ly/8MO7UR	TW
29	@escalier7	#free404		http://bit.ly/8MO7UR	TW
30	@Souihli	#free404	@Fatounar2		TW
31	@Samihus_	#SayebSala7:#free404			TW
32	@escalier7	#free404		http://www.zataz.com/news/20166/clients-Hexabyte-piratage.html	TW

Figure 4. Data after processing

With this file, we generated a node list. In a node list, the first name in each row gives the node that is 'sending' a tie—the ego. The names that follow in the same row are the nodes receiving a tie—the alters (Borgatti et al., 2013, p. 66). The software used to

process the generated the node list was UCINET.[1] Figure 5 shows a screenshot of the UCINET DL Editor spreadsheet with an example of node list of our data collection. When we created our edge list, we analysed the data using UCINET. The program allowed us to measure the properties of the network on the whole and on the element level. We explain this analysis in the next section.

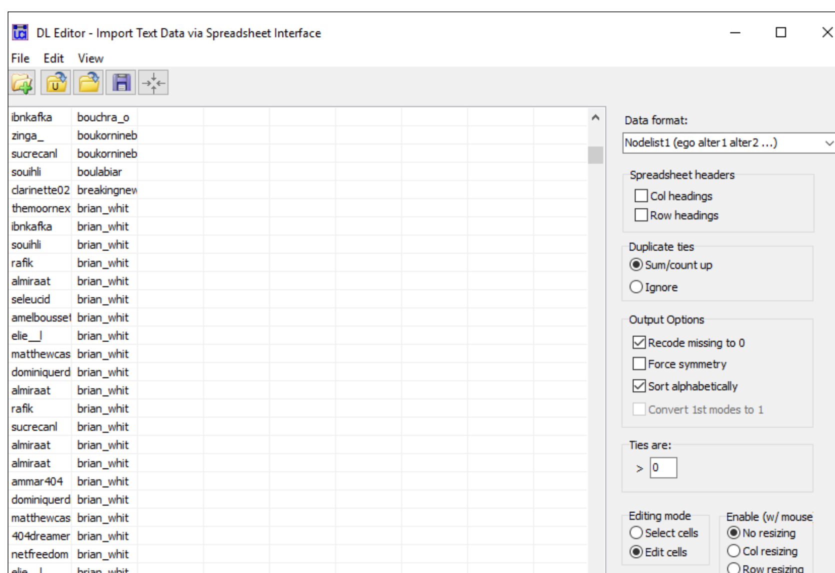

Figure 5. Example of node list

For the visualization of the network, we used NetDrawfree software developed by Borgatti. Analysing our data with UCINET, we obtained the centrality measures. Thus, we can identify who the most central nodes were in the networks.

The second stage consisted in the qualitative content analysis. We carried out this analysis manually. First, we read the

[1] UCINET is a software package for the analisys of social network data. It was developed by Freeman, Borgatti, and Everett.

sample and then, with the help of the previous literature (Lotan et al., 2011, Poell, 2014), we established some codes. We compared our data with the codes that we had and, in a second analysis of our sample, we reduced the number of codes in order to get the most accurate results possible for our research questions and our objectives. The qualitative content analysis allowed us to detect topics and themes present on the network.

Finally, in the next stage we carried out the interviews with activists. Because we had already identified the most prominent nodes, we knew who the Tunisian activists were who appeared in the networks. Moreover, with the results of the content analysis, we could formulate questions related to the themes present on the network. We travelled to Tunisia for the fieldwork in June 2015, and we conducted face-to-face two interviews. We had planned another interview in Tunisia, but unfortunately we could not meet with the interviewee face-to-face, so we conducted the interview by internet (voice call services). Interviewee 2 was based in the U.S; so we carried out the interview by internet, with a voice call service.

The following sections provide more detailed information concerning the methodologies used in this research.

3.5 Social network analysis (SNA)

As Elisa Bellotti has pointed out (2015, p. 1), network science has always spanned boundaries, both disciplinary and methodological. According to Ulrik Brandes et al. (2013), network science is a scientific approach defined by the type of data that it aims to analyse. Thus, we can say that networks are abstractions represented in data. Thus, as Brande et al. (2013)

propose, the elements of network models are as presented in Figure 6.

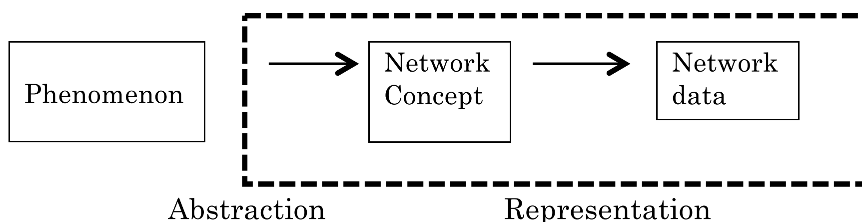

Figure 6. Elements of network models. Source: Brandes et al., 2013, p. 4

Following Bellotti (2015, p. 3), network science starts from the observation of actors entangled in meaningful relations in contextualised environments. These relations are and shape by structural and cultural mechanisms that regulate social phenomena themselves. Network analysis is the analytical tool that measures and models these relations, being a useful method for studying social phenomena.

Due to the fact that these relations occur in contextualised environments, populations are not normally sampled, and each study observes a specific network, so the aim of the research is not to extend contextual characteristics to other networks but 'to discover social mechanisms that may function across various case studies' (ibidem).

Following to Elisa Bellotti (2015, p. 5), four related concepts can be defined as follows:

1) *Network science* is the scientific approach to the study of network dependencies and associations.

2) *Network analysis* is the methodological tool that lies at the core of network science studies. It consists of the application of graph theory to the study among a set of items (human, words, blogs…).

3) *Social networks* are the empirical phenomena of interconnected patterns of relations.

4) *Social network analysis* is the application of the network analysis to the study of those patterns.

3.5.1 Defining network data: nodes and ties

Networks are a way of thinking about social systems that focusses our attention on the relationships among the entities that make up the system, which we call actors or nodes (Borgatti et al., 2013: 2). A node is the first basic element of networks; it represents the unit of analysis of actors in the network (Bellotti 2015: 6). In the specific case of social movements, networks nodes consist mostly of individual or collective actors (Diani, 1992: 276). The relationship between nodes also has characteristics, and in network analysis we think of these as ties or links (Borgatti et al., 2013: 2).

Relations among actors can be of many different kinds. Two types of relations among actors can be identified: on one hand, relational states, which refer to continuously persistent relationships between nodes, such as being someone's brother or friend. On the other hand, we can distinguish relational events, which refer to discrete events that span a relatively short period of time (Borgatti et al., 2013, p. 4). Relational events may be determined by communication instances (e.g., phone calls, emails, face-to-face conversation) that connect individuals in

organisation (Aral and Val Alstyne, 2011). Due to the characteristics of this study, it focussed on the relational events.

Within relational events we can distinguish between interactions and flows. Interactions are behaviours with respect to others and are often observable by third parties. In a sense, flows are the outcomes of the interactions, and interactions are the outcomes of social relations (Kane et al., 2014, p. 9). In addition, interactions form the medium that enables things to become flows, which can be intangible, such as beliefs, attitudes, norms, and so on (Borgatti et al., 2013, p. 4).

According to Krisnsky and Crossley (2014, p. 2), networks are important to collective action in many ways. At the most basic level, members of a movement must communicate if they are to coordinate their efforts, pool their resources and act collectively, and different patterns of connection between them will effect the ability with which such coordination is achieved, along with its efficiency (Coleman, 1990; Crossley & Ibrahim, 2012). Social movement implies concerted activity that requires a level of coordination between actors and can be achieved only through sustained interaction and thus, through networks (Krinsky and Crossley, 2014, p. 2).

3.5.2 Key concepts of network analysis

When we analyse a whole network, we identify a relevant population of nodes and, as far as possible, conduct a census survey of all members of that population, 'seeking to establish the existence or not of a relevant tie between each pair of nodes in that population' (Crossley et al., 2015, p. 8).

The information of a whole network is stored within an adjacency matrix (see Figure 7). This is a matrix whose first

column and row give all of the nodes in the network, in the same order, and the ties between nodes are indicated in the cell where the row of one meets the column of another. For example, in Figure 7, there is a 1 in the cell where samitunis intersects with 20minutes. Thus, 1 indicates that they have a tie. In our study we have used the software UCINET in order to build up the matrices of our networks.

Figure 7. Adjacency matrix

	0us	20minutes	3ammar404	3amrouch	3loullou	404dreamer_	404samitunis	404works	7amma404	7ancha
0us	1	0	0	0	0	0	0	0	0	0
20minutes	0	0	0	0	0	0	0	1	0	0
3ammar404	0	0	0	0	1	0	0	1	0	0
3amrouch	0	0	0	0	0	0	0	1	0	0
3loullou	0	0	0	0	0	0	0	1	0	0
404dreamer_	0	0	0	0	0	0	0	0	0	0
404samitunis	0	1	1	0	0	0	0	0	0	0
404works	0	1	1	0	0	0	0	0	0	0
7amma404	0	0	0	0	0	0	0	0	0	0
7ancha	0	0	0	0	0	0	0	0	0	0

A whole network can be visualised in a graph. Graph theory gives us a representation of a social network as a model; it is an elemental way to represent actors and relations. In a graph, nodes are represented as points in a two-dimensional space and arcs are represented by directed arrows between these points (Wasserman and Faust, 1994, p. 73).

Whole networks have a large number of properties, which can be analysed at various levels. In this study we propose a whole network analysis from two levels of abstraction, with the aim to achieve a deep understanding. These levels of abstraction were as follows:

- Our network-level analysis focusses on the topological

properties of the network as a whole. The variables studied at this level were type of network (directed or undirected), size, edges, density, reciprocity between edges, and transitivity. We develop these concepts further in Section 3.5.1.

- Our element-level analysis investigated the methods of identifying the most important nodes of the network. The element-level analysis was defined by four centrality measures: degree, betweenness, eigenvector and closeness centralities. We explain these concepts further in Section 3.5.2.

Network-level analysis

As we have noted previously, the network-level analysis focussed on the topological properties of the network as a whole. Networks can be directed or undirected. We say that a network is directed when the edges are like arrows, thus, they have directions. Edges in directed graphs are often referred to as arcs. In undirected graphs, the edges are unordered pairs. Undirected graphs are used for relations wherein direction does not make sense or logically must always be reciprocated (Borgatti et al., 2013, p. 12). In a directed network, any node A might 'send' a tie to a node B without necessarily receiving a tie back (Crossley et al., 2015, p. 14).

The concept of density refers the number of ties in the network, expressed as a proportion of the number possible (Borgatti, et al., 2013, p. 150). In other words, it expresses the number of existing ties divided by the number of possible or potential ties in a network (Kane *et al.,* 2014, p. 17). The density of a graph

goes from 0, is no lines are present, to 1, if all possible lines are present (Wasserman & Faust, 1994, p. 101). According to James S. Coleman (1988), a high density in a network is a breeding ground for trust and generalised exchange, at the cost of redundant information. The advantage of density over the simple number of ties is that it adjusts for the number of nodes in a network. As a result of this adjustment, densities are almost always lower in large networks than in small networks (Borgatti, Everett and Johnson, 2013, p. 151). Due to this issue, in large networks it is better to use the average degree of the network, which is easier to interpret than density; it refers to the average number of ties that each node has (ibidem, p. 152).

In directed networks, the relations can be reciprocating. Reciprocity refers to a situation among a pair of nodes where each node sends a tie to another (Crossley et al., 2015, p. 15). A simple way to measure reciprocity in a network is to count the number of reciprocated ties and divide these by the total number of ties (Borgatti et al., 2013, p. 155).

The transitivity in a network refers the extent to which triads in the network are closed (Kane *et al.*, 204, p. 17). A triad is transitive when A is related to B and B is related to C. As such, transitivity requires a triad, that is, subgraphs formed by 3 nodes. When networks have a lot of transitivity, then tend to have a clumpy structure (Borgatti et al., 2013, p. 154). The value of transitivity in a network goes from 0 to 1. A network with a value of 1 is called a transitive graph. However, actual social networks values between 0.3 and 0.6 are quite unusual (Snijders, 2012, p. 7). High transitivity suggests a tendency for individuals to have their ties become acquainted over time, and thus for them to become homogenised (Kane *et al.,* 2014, p. 17).

Element-level analysis

According to Crossley et al. (2015, p. 14), in addition to their exogenous attributes, nodes have properties in virtue of their pattern of connection. For instance, a node can be more or less central to the network, as defined by one or more of the different types of centralities identified in SNA. In this research, we focus on four different centrality measures: (in)degree, betweenness, eigenvector and closeness centrality.

Bavelas introduced the idea of centrality applied to human communication in 1948. Centrality is a property of a node's position in a network (Borgatti et al., 2013, p. 164) and can be defined as the number of ties incident upon a node (Borgatti, 2005, p. 62). Basically, the degree of centrality is the row sums of the adjacency matrix:

$$di = \sum_{j} xij$$

If d_i is the degree centrality of actor i and x_{ij} is the (i, j) entry of the adjacency matrix (Borgatti et al., 2013, 2013, p. 165). According to Freeman (1979, p. 219–220) as the process of communication goes on in a social network, a node which is in a position that permits direct contact with many others should begin to see itself by those others as a major channel of information. It is likely to develop a greater access to network flows.

Betweenness centrality is defined as the share of times that a node i needs a node k (whose centrality is being measured) in order to reach a node j via the shortest path (Freeman, 1979, Borgatti, 2005, p. 60). More specifically, according to Borgatti, Everett and Johnson,

> [betweenness centrality] it is calculated for a given focal node by computing , for each pair of nodes other than the focal node, what proportion of all the shortest paths from one to the other pass through the focal node. These proportions are summed across all pairs and the result is a single vale for each node in the network. (2013: 174)

The formula for the betweenness centrality of node *j* is given by

$$bj = \sum_{i<k} \frac{gijk}{gik}$$

Betweenness is interpreted in terms of the potential for controlling flows through the network (Borgatti et al., 2013, 2013, p. 1175). More generally, a node with a high score of betweenness has a fast access and control over network flows.

Another popular measure of centrality is eigenvector centrality. Philip Bonacich first introduced this measure in 1927. A measure of a node's status is determined both by its number of direct connections and how well connected its contact are in turn (Kane *et al.*, 2014: 17). The formula for the eigenvector centrality is

$$ei = \lambda \sum_{j} xij\ ej$$

where e is the eigenvector centrality score and λ (lambda) is a proportional constant called eigenvalue. The equation basically says that each node's centrality is proportional to the sum of centralities of the nodes it is adjacent to (Borgatti et al., 2013, 2013: 1689). Eigenvector centrality measures the status of a node in a network as reflected by whom one is tied to (Bonacich,

1987). This measure can be interpreted as a measure of popularity in the sense that a node with a high eigenvector centrality is connected to nodes that are themselves well connected (Borgatti et al., 2013, p. 168).

Freeman (1979) defines a node's closeness centrality as the sum of geodesic distances from a node to all others. The geodesic distance from a node to another node is the length of the shortest path between them (Borgatti et al., 2013, 2013, p. 15). In a flow context, closeness centrality can be interpreted as an index of the expected time until arrival of something flowing through the network (Borgatti, 1995). In other words, closeness centrality measures fast access to network flows. Closeness is an inverse measure of centrality, thus a node with a high score in closeness is highly peripheral and nodes with low raw closeness scores are more central and receive information sooner (Borgatti, 2005, p. 59; Borgatti et al., 2013, p. 173).

In the case of information flows, nodes with low closeness scores are well positioned to obtain novel information early, which is of the most value (Borgatti, 2005, p. 59). Table 6 summarises the features of a network and their associated outcomes

Structural Feature	Definition	Associated Outcomes
	Whole Network	
Density	The number of existing ties divided by the number of possible ties in a network	High density is a breeding ground for trust and generalised exchange, at the cost of redundance information (Coleman, 1988)
Reciprocity	The extent to which a tie from A to B is matched by one from B to A	High reciprocity value indicates symmetric relationship between nodes. Low reciprocate values indicate unbalanced and indicates that network tends to be hierarchical
Transitivity	The extent to which trains in the network are closed	High transivity suggests a tendency for individuals to have their ties become acquaintance over time and to become homogeneised
	Node's network position	
Degree centrality	The number of direct connections to other nodes held by a node	High degree means greater access to network flows (Freeman, 1979)
Betweenness centrality	The number of shortest paths connecting other nodes in a network that pass through that node	High betweenness centrality means fast access and control over network flows (Freeman, 1979)
Eigenvector centrality	Determined by both its number of direct connections as well as how well connected its contacts are in turn	Status in the network as reflected by whom one is tied to (Bonacich, 1987)
Closeness centrality	The average of steps to access all other nodes in a network	Fast access to network flows (Freeman, 1979)

Table 6. Structural features of a network and associated outcomes. Source: Kane et al. 2014, p. 17

3.6 Qualitative content analysis

Whereas social network analysis allows us to provide a quantitative overview of patterns of interaction and diffusion, content analysis provides a qualitative account of the nature of this interaction.

Content analysis is a research method that uses a set of procedures to make valid inferences from the text (Weber, 1990, p. 9). In 1952 Bernald Berelson published what was to become the first leading textbook on quantitative content analysis. He defines content analysis as 'a research technique for the objective, systematic, and quantitative description' (Berelson, 1971, p. 18). The aim of content analysis is to identify what is communicated, who communicates it and why, and what effects the communication produces (ibidem). According to Ji Young Cho and Eun-Hee Lee,

> Content analysis was first used as an analytic technique at the outset of the 20th century for analysing textual materials from hymns, newspaper and magazine articles, political speeches, advertisements, and folktales and riddles (Elo & Kyngäs, 2008; Harwood & Garry, 2003). It was primarily used as a quantitative research method to analyze the content of media text to enable similar results to be established across a group of text coders (2014, p. 3).

Qualitative content analysis is a method for systematically describing the meaning of qualitative data (Schreier, 2013, p. 170). Qualitative content analysis more often concerns providing a detailed description of the material under analysis. Unlike other qualitative methods for data, which open up (and sometimes add to) data, qualitative content analysis helps with

reducing the amount of material. It requires the researcher to focus on selected aspects of meaning. There can be many such aspects, but ultimately the number of aspects is limited by the number of categories a researcher can handle (ibidem).

The content analysis in this study focussed on the characteristics of communication, that is, on the message. Research using qualitative content analysis goes beyond merely counting words to examining language intensely for the purpose of classifying large amounts of text into an efficient number of categories that represent similar meanings (Weber, 1990, Hsieh & Shannon, 2005, p. 1278). In this research, qualitative data content analysis is defined as a research method for the interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns (Hsieh & Shannon, 2005, p. 1278).

The content presented here is based on a corpus-driven approach. Corpus-driven research is inductive, so that the categories emerge from analysis of a corpus. According to Elena Tognini-Bonelli, this feature means that

> [the commitment of the researcher] is to the integrity of the data as a whole, and descriptions aim to be comprehensive with respect to corpus evidence. The corpus, therefore, is seen as more than a repository of examples to back pre-existing theories or a probabilistic extension to an already well-defined system. [...] Examples are normally taken verbatim, in other words they are not adjusted in any way to fit the predefined categories of the analyst; recurrent patterns and frequency distributions are expected to form the basic evidence for

> linguistic categories; the absence of a pattern is considered potentially meaningful. (Tognini-Bonelli, 2001, p. 65)

The sample of the content analysis was the same Twitter data that used for the SNA. However, any tweet which contained only hashtags, re-posted or 're-tweeted' tweets using notation 'RT @ username' or 'RT@username' were excluded to prevent popular posts or spam from saturating the sample. Arabic tweets were also excluded because translation was not feasible.

The sample was divided as follows:

1) *The latency phase of the movement, that is, the months that preceded the uprising*. This period comprised the period of December 2009 through December 2010.

2) *Visible phase of the movement*. This period comprised the period from 17 December 2010 to 14 January 2011. In turn, this phase was further divided in four periods:

    a. From 17 December 2010, when Mohammed Bouazizi set himself on fire, to December 28th, 2010, when Ben Ali appeared for first time talking about the uprising on television.
    b. From 29 December 2010 to 4 January 2011, the day that Mohamed Bouazizi died.
    c. From 5 January 2011 to 13 January 2011. In this period the protest was spreading across Tunisia.
    d. 14 January 2011, the day that Ben Ali left Tunisia.

The inductive approach of content analysis allows one to identify and define relevance criteria (Elo & Kyngäs, 2007, p.

109). An inductive approach is appropriate when prior knowledge regarding the phenomenon under investigation is limited or fragmented. In the inductive approach, codes, categories, or themes are drawn directly from the data (Cho & Lee, 2013, p. 8).

Table 7 and Table 8 show the coding scheme of the latency and visible phases:

Category	Definition	Example
Censorship	Tweet is about the censorship practice in Tunisia	Tunisia is one of the internet's Black Holes countries http://ow.ly/1VipY #free404 #sayebsala7
22 May demonstration	Tweet is about the organisation of 22 May demonstration	Le consulat de Tunisie à Paris ferme à 13h, pkoi ne pas afire la manis le matin #Menif22mai
Tunileaks	Tweet is about the Tunisia's Wikileaks cables, known as *Tunileaks*	Tous les docs #Tunileaks sont aussi accesible sur la page Facebook de nawaat (https) http://is.gd.ip3L8

Table 7. Categories of content analysis, latency phase

Category	Definition	Example
Injustice	Tweet emphaising moral outrage, the significance of a problem, and injustice being done	@FelicieLeDragon Des manifestations a cause d'un jeune qui a voulu se succéder #sidibouzid conditions de vies deplorables
Corruption	Tweet emphaising the government's corruption practices	@Mayday_Freeman Jamal not asking the right kestions. Ignores the main demand is about corruption and liberties. We're no beggars #sidibouzid
Revolt	Tweet is about the revolt and the events related to it	"Tunisia plays down clashes in provincial town" http://bit.ly/ic19eZ #sidibouzid
Media coverage	Tweet emphaising the national and international coverage, and the silence of the medias	Pas 1 image dé anifestations http://is.gd/j8do2 Seulment des paroles. La tv tunisia est 1 radio ? à évoquer les incidents de #SidiBouzid
Social media	Tweet emphaising the use of social media in order to diffuse information about the revolt	Page Facebook de solidarité avec Mohamed #Bouazizi http://goo.gl/Q2Tly "pour que Mohamed Bouazzi demeure dans nos coeurs" #sidibouzid
Censorship	Tweet is about the censorship practices in Tunisia	Sems Tunisia is shutting internet in #sidibouzid. What next? man in black mass memory eraser. Some1 plz tell them world has changed
Reaction of authorities	Tweet accounts for the authorities' reaction to the uprising	Officials in #Tunisia didn't answer #Reuters today for commenting on #SidiBouzid incidents http://goo.gl/rcXZK
Ben Ali	Tweet is about the ex-President of Tunisia	Saudis on Twitter outraged by their country hosting ben ali #sidibouzid

Trabelsi family	Tweet is about Ben Ali's relatives	#SidiBouzid Source radio canadienne sous réserve http://www.985fm.ca/audioplayer.php?mp3=88706 pour l'exil des trabelsi et dérivés
Arab politics	Tweet is about the reaction to the uprising in other countries	Next step 30 years of military rule? #Sidibouzid #notoptimisticaboutgeneralrulingcountries #Egypt #mubarak
International politics	Tweet is about the reaction of Western countries	@samihtoukan @Dima_Khatib Obama gives no shit about TN, He just needs to be sure that who's in charge is an ally #sidibouzid #tunisia #obama

Table 8. Categories of content analysis, visible phase

The connotations of the language used in the tweets analysed represent an interpretative issue. According to Krippendorf (2001, p. 22) 'texts do not have single meanings that could be "found", "identified" and "described" for what they are'. This is a complex issue in an environment where censorship was a daily practice. Thus, in that context it is usual to find sarcasm and complex references to persons, organisations and ideas. For instance, in the Tunisia's context, activists referred to censorship as *Ammar404.* Due to this, we preferred to manually interpret the content and to avoid problems deriving from the presence of sarcasm or other complex references.

3.7 Semi-structured interviews

The use of interviews in the research suggests a move away from seeing human knowledge as simply data and somehow external to individuals towards regarding knowledge as generated between humans, often through conversation (Kvale, 1996, p. 11). Because people speak from a variety of different backgrounds and perspectives, interviewing is a valuable method of obtaining a larger amount of useful, interesting, relevant, and important information (Brennen, 2013, p. 26). Some of the information accessed through interviews helped to broaden our knowledge base, while other information helped us understand other points of view (ibidem, p. 27).

James Holstein and Jaber Gumbrium (1995, 2003) refer to interviews as reality-constructing and interactional events during which the interviewer and interviewee construct knowledge together. Following this idea, Andrea Fontana and James Frey (2005) define the interview as a collaborative, contextual and active process that involves two or more people. In that sense, as Mirka Koro-Lujberg states (2007, p. 431) that the qualitative interview is heavily influenced by a constructivist theoretical orientation. Thus, respondents are seen as important meaning-makers, playing an active role rather than a passive one.

In this study, we have carried out semi-structured interviews. Steinar Kvale and Svend Brinkmann define a semi-structured interview as

> an interview with the purpose of obtaining descriptions of the life world of the interviewee in order to interpret the meaning of the described phenomena. (Kvale & Brinkmann, 2008, p. 3)

The main points in this description are (1) purpose, (2) descriptions, (3) life world, and (4) interpretation of meaning. According to Svend Brinkmann (2013, p. 21–22), qualitative interviews are not conducted for their own sake, but are staged and conducted in order to serve the researcher's goal of producing knowledge. All sorts of motives may play a role in the staging of interviews, and good interview reports often contain a reflexive account and discussion of both individual and social aspects of such motives. In most interview studies, the goal is to obtain the interviewee's descriptions rather than reflections or theorizations. Interviewers are normally seeking descriptions of how interviewees experience the world, its episodes and events, rather than speculations about why they have certain experiences.

Objective sciences give us second-order understandings of the world, but qualitative research is meant to provide a first-order understanding through concrete description. Frequently, interview researchers have decided to use interviews in order to elicit descriptions of the life world. Related to these descriptions, researchers must nonetheless often engage in interpretations of people's experiences and actions as described in interviews. One reason for this is that life-world phenomena are rarely transparent and 'monovocal,' but are rather 'polyvocal' and sometimes even contradictory, permitting multiple readings and interpretations. The interpretation of the meanings of the phenomena described by the interviewee can be favourably built into the conversation itself, since this integration will at least give the interviewee a chance to object to a certain interpretation, but it is a process that goes on throughout an interview project.

In this study, four interviews were carried out. Three were done with Tunisian activists and one with a social movement's Arab scholar. The interview with the three activists took place after the network analysis, because we needed to interview activists from our network. The three cases corresponded with prominent nodes of our networks. Two of these interviews took place in Tunisia in June 2015, and the other two were conducted by internet in the same period of time. Table 9 presents the list of interviewees, as well as the contextual data:

ID	Genre	Type of interview	Role
1	Female	Face-to-face (Tunisia)	Tunisian activist. She played an important role before and during the uprising. She participated in the organisation of 22 May 2010 demonstration. She is from Tunis
2	Male	Internet	Lecturer. He is an expert about the use of digital media during the Arab Spring, and he has published several articles and a book about the issue
3	Female	Face-to-face (Tunisia)	Tunisian activist. She was one of the organisers of 22 May 2010 demonstration, and she was in touch with Bouazizi's family when Mohammed Bouazizi set himself on fire. She is from Tunisia
4	Male	Internet	Tunisian activist. He started with digital activism in Tunisia in 2003. He is from Tunis.

Table 9. Interviews conducted for the study and contextual data

Interviews helped particularly in providing qualitative insights. In our case, we conducted semi-structure interviews divided into three parts (see Appendix 2):

(1) In the first part, we asked about the background of the interviewee as a Tunisian activist. In the case of Interview 2, we asked about his research on Tunisian digital activism. Then, we

asked about digital activism in Tunisia before the uprising, focussing mainly on the 22 May 2010 demonstration against censorship and concerning Tunileaks. This first part of the interview corresponded with the latency phase of the movement.

(2) In a second part, the most important part of the interviews, we asked several questions in which we collected information about the uprising itself and the role of digital activism. These questions provided us some insightful results, for example, the previous existence of an offline network between people from Sidi Bouzid and activists in Tunis, as we will see in Chapter 5 when we will present the results. This second part corresponded with the visible phase of the movement.

(3) In the third part, we asked some questions about the consequences of the uprising in Tunisia. Although these were not a primary focus of this study, we considered it interesting to discover the perception of our interviewees about the actual situation in Tunisia and, most importantly, what role they believed digital activism must take in a new context.

CHAPTER 4

Case Study

4.1 The fight against the Neoliberal System

Introduction

Neoliberal globalisation has produced complex and unequal effects across the globe. Consequently, the response from social movements has been unusually widespread and intense in some places. Arab Spring protests also centred on claims against social inequality, and as with the protest in Europe, they emerged in a context of widespread socio-economic insecurity, precarious labour, high unemployment and increasing social inequality (Flesher Fominaya, 2014, p. 154). Given the influence and inspiration of the Tunisian and Egyptian revolution on movement against the crisis elsewhere, including the European wave of anti-austerity protests and Occupy Wall Street or #YoSoy132 movement in Mexico (see, for example, Tejerina, 2013; Fernández-Planells, 2014; Castells, 2015; Treré, 2015; Haunss, 2015), it is tempting to fit these into a global wave of crisis-related protests.

In this chapter we treat economic neoliberal globalization at some length because of its particular relevance for contemporary social movements. This introductory section attempts to define the terms 'ideology' and 'hegemony' in a general sense. We think ideology and hegemony are the key concepts to understand the spread of the neoliberal ideas across the world during the second part of the 20th century. Then, in the following sections, we develop what neoliberalism means and its importance to understanding the wave of uprising which started in Tunisia in 2010 and then spread across the world.

4.1.1 The hegemonic ideology

According to van de Haar (2015, p. 14), all ideologies offer (a) a view of an existing order ('world view'); (2) a picture of the ideal future, and (3) an explanation of how society can get from (a) to (b) through political action. The question here is who, how and with what intentions a specific ideology is spread through society. The term 'ideology' was first used as a concept in the French Revolution, but became popular predominantly in the Marxist theory. Marx and Engels argued that the ideas of the ruling class are in every age the ruling ideas (1998/1845). Consequently, the class that has the control of material production at its disposal has control at the same time over the means of mental production. According to the authors, the ruling ideas are 'nothing more than the ideal expression of the dominant material relationships, the dominant material relationships grasped as ideas; hence of the relationships which make the one class the ruling one, therefore, the ideas of its dominance' (ibidem, p. 67).

Marx and Engels use the term 'ideology' to refer specifically to the manifestations of the bourgeois thought (Hall, 1986, p. 27).

In Marxism, this reduction of the term ideology to bourgeois ideology aimed at legitimating the unequal and exploitative relationship between the dominant and the subordinate classes (Cammaerts, 2015a, p. 4). In that sense, Stuart Hall (1986, p. 25) defines ideology as 'the mental frameworks—the languages, the concepts, categories, imagery of thought and the systems of representation—which different classes and social groups deploy in order to make sense of, define, figure out and render intelligible the way society works'.

The problem of ideology, therefore, concerns the ways in which ideas arise. From a materialist premise, ideas arise from and reflect the material conditions and circumstances in which they are generated. They express social relations and their conditions in thought (ibidem p. 31). Ruling ideas become widespread, naturalised and eternalised, seeming to form part of the common sense and the natural order of the things, as 'just the way things are' (Flesher Fominaya, 2014, p. 83) or, according to Marx and Engels (1998/1845, p. 67) as an 'eternal law'.

For Neo- and Post-Marxist thinkers, ideology is articulated in ways that go beyond class reductionism. One of the most influential theorists to highlight culture as a crucial arena for the maintenance of the dominance of the ruling classes is Antonio Gramsci. Gramci's conception of ideology overcomes class reductionism by asserting that classes in the infrastructure are not duplicated in the superstructure through ideological elements exclusively (Gramsci, 1971, originally 1929–1935). These ideological elements did not have necessary class belonging. Thus, ideological discourses constituted of these ideological elements defined ideological systems. Gramsci's concept of hegemony emphasises the decisive role of culture in maintaining systems of power and domination. This cultural hegemony, internalised as systems of meanings within societies,

serves to shape and reproduce inequalities. Hegemony is organised within both civil society and the state. According to Gramsci 'the state is the entire complex of practical and theoretical activities with which the ruling class not only justifies and maintains its dominance, but manages to win the active consent of those over whom it rules' (1971, p. 244). Cultural hegemony is powerful in that the interests of the ruling class subordinate other interests. As Gramsci argued,

> The traditional ruling class, which has numerous trained cadres, changes men and programs and, with greater speed than is achieved by the subordinate classes, reabsorbs the control that was slipping from its grasp. Perhaps it may make sacrifices, and expose itself to an uncertain future by demagogic promises; but it retains power, reinforces it for the time being, and uses it to crush its adversary and disperse his leading cadres, who cannot be numerous or highly trained. (1971, pp. 210–211)

Thus, hegemony is the active acceptance of the burgeoisie's class power because its political leadership. Its prestige, its directive capacities, its cultural aura, and its technical ability to manage society and solve problems (De Schmet, 2016, p. 25). The difference between domination and hegemony is the degree to which force is successfully grounded in popular consent (Thomas, 2009, pp. 162-165). As Gramsci pointed out 'a social group dominates the antagonistic groups, which it tends to liquidate, or to subjugate perhaps even by armed force; it leads kindred and allied groups' (Gramsci, 1971, p. 57). In line with Gramci, and following to Brecht De Schmet describes (2016, p. 25), in one hand, domination describes the relation between the dominant class and subordinate class that do not accept its leadership. On the other hand, hegemony describes the hierarchical alliance between the ruling class and those groups

(both elite or subaltern) that accept its leadership. However, for the maintenance of the hegemony is necessary to establish equilibrium. According to Gramsci, the ruling class has to take into account the 'interest and the tendencies of the groups over which hegemony is to be exercised, and [the fact] that a certain compromise equilibrium should be formed' (Gramsci, 1971, p. 161). Although this equilibrium requires concessions on the part of the directive class, as Gramsci argued 'there is also no doubt that such sacrifices and such a compromise cannot touch the essential' (Gramsci, 1971, p. 161). That is, 'only those social and political concessions are allowed which do not undermine the foundation of class rule' (De Schmet, 2016, p. 26).

Apart from ideas, sentiments, and conceptions, the material form of hegemony in civil and political society is the *hegemonic apparatus* of the ruling class (ibidem). Peter Thomas summarizes the hegemonic apparatus as 'the wide-ranging series of articulated institutions (understood in the broader sense) and practices –from newspapers to educational organizations to political parties- by means of which a class and its allies engage their opponents in a struggle for political power' (Thomas, 2009, p. 226). In that sense, according to David W. Hursh and Joseph A. Anderson (2011, p. 171), neoliberal policies are promoted by those who are the most powerful, and who can, therefore, control public debate and present neoliberalism as both the inevitable evolution of capitalism and as technical and apolitical response to economic and political issues.

As Cristina Flesher Fominaya (2014, p. 87) has pointed out, following Gramsci, in order to transform politics, one would need to challenge the hegemonic ideologies, transmitted through culture, that maintain systems of injustice and inequality. This transformation is the aim of many social movements, especially

the last wave of movements, which della Porta (2015) calls anti-austerity movements. The main aim of these movements is change the neoliberal system in order to end injustice and inequality.

4.1.2 The fight against the neoliberal system: The core of current global mobilisations

In this section, in line with Tejerina et al., (2013, p. 380), we argue that the mobilisations that began in Tunisia in late 2010 are part of one cycle of contention, that is, the common trajectory of complex episodes of contentious politics (Tarrow, 1998, p. 188). These cycles of contention consist in several mobilisations or episodes that are connected through various processes, including appropriation and diffusion. A mobilisation may trigger new mobilisations, so-called 'spin-off' movements, by creating new opportunities and inspirations. When activists begin to organise, they are inspired by their observation of or knowledge about other challengers. Thus, they adopt tactics that are familiar from previous use, or that they have observed to be effective for others (Whittier, 2004, p. 533). This adoption may also have 'spillover' effects that influence rather than trigger other mobilisations, both contemporary and later ones (Zamponi and Daphi, 2014, p. 195).

These protests have been seen as part of anti-austerity movements, mobilising in the context of the crisis of neoliberalism. According to della Porta (2015, p. 3), in order to understand their main characteristics in terms of social basis, identity and organisational structures, we should look at the specific characteristics of the socioeconomic, cultural and political context in which these protests developed. Related to the case of this study, the Arab Spring in Tunisia, we will

develop the characteristics of the Tunisia's context in Section 4.2 in this chapter, so in this section we will focus on the general trends of this wave of mobilisations.

As Tejerina et al. (2013, p. 380) have pointed out,

> The global diffusion of neoliberal capitalism and its widespread social impacts have swiftly concatenated political upheavals around the world, we believe social contestation has been articulated in regional terms, and that regional and local socioeconomic and political contexts have played an important role in this articulation.

The starting point for such considerations is the nature of current capitalist globalisation in which a seamless, deterritorialised world market has embraced neoliberalism as its legitimate economic ideology (Benski et al., 2013, p. 543). Capitalism can be defined as 'an economic and political system in which a country's trade and industry are controlled by private owners for profit, rather than by the state'.[1] According to Robinson (2014), global capitalism is not reducible to a collection of discrete national economies, national capitals, and national circuits of accumulation connected through an international market. Such national economies have been dismantled and then reconstituted as components of this new globally integrated production and financial system, a 'world economic structure qualitatively different from that of previous epochs, when each country had a distinct national economy linked to others through trade and financial flows' (Robinson, 2014, p. 19). In general terms, when people refer to contemporary capitalist globalisation, what they are actually referring is to the globalisation of neoliberal capitalism (Flesher Fominaya,

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[1] Source: Oxford dictionaries. Available at: http://www.oxforddictionaries.com/definition/english/capitalism

2014, p. 28). The increasingly global nature of regulatory oversight has expanded the protests beyond the confines of a single nation (King and Pearce, 2010, p. 252). Harvey (2005, p. 2) defines neoliberalism as

> a theory of political economic practices that proposes that human well being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade. The role of the state is to create and preserve an institutional framework appropriate to such practices.

According to Joanna Redden (2015, p. 128), neoliberalism is a political, economic and social project. But, as argued by Foucault, the neoliberal project is about more than changing policies and regulations; that is to say, is a project that aims to change the way we think. Thus, neoliberalism becomes a 'method for thought, a grid of economic and sociological analysis' (Foucault, 2008, p. 218). In Foucault's account, neoliberalism is a deliberative approach to political practices and must be viewed as more than a series of governmental techniques (Redden, 2015, p. 129). Thomas Lemke (2002, p. 58) argues that 'Foucault's discussion of neoliberal governmentality shows that the so-called retreat of the state is in fact a prolongation of government: neoliberalism is not the end but a transformation of politics that restructures the power relations in society' (Lemke, 2002, p. 58). Power, on Foucault's view, is about guidance and 'structuring the possible field of actions of others' (ibidem, p. 53).

Margaret Thatcher, one of the most well-known exponents of the neoliberal ideas and Prime Minister of United Kingdom from 1979 through 1990, explained in 1975 the leading ideas of

the neoliberal model. As she urged,

> let me give you my vision: a man's right to work as he will, to spend what he earns, to own property, to have the state as servant not as master […]. These are the essence of a free country and on that freedom all our other freedoms depend. (Thatcher, 1975, cited in Hall, 2011, p. 706)

'Freedom' is a central value espoused by neoliberalism (Mirowski & Plehwe, 2009; Harvey, 2005). As Cristina Flesher Fominaya (2014) has pointed out, the neoliberal understanding of freedom is conceived not as the realisation of political cultural or human aspirations but, rather, envisions free individuals as 'autonomous self-governed' individuals who are rational, self-interested and who seek to improve their own situation through exchange in the market (Mirowski & Plehwe, 2009; Flesher Fominaya, 2014). For the economist and philosopher Friedrich Hayek (2011/1960), best known for his defence of classical liberalism, a neoliberal society should be a society in which the rules of private law apply to individuals and the state alike. The intervention of the state should be limited to cases where the rules of private law have been breached. From a neoliberal point of view, 'deregulation' means instituting new rules that would not substitute but would support competition (Amable, 2011, p. 11).

According to Mirowski (2013, pp. 53–66), there are six principles that, generally speaking, neoliberalism supports: (1) the need for political effort and organisation to ensure the conditions for neoliberal governance; (2) the reformation of society by subordinating it to the market; (3) that neoliberal market society must be promoted and treated as if it is the natural state of society; (4) that the shape and functions of the state must be redefined in ways that promote marketization and diminish

collective action (e.g. audit devices, privatization and reregulation to inhibit change); (5) the promotion of an economic theory of democracy and citizen as consumer, and (6) that neoliberal policies lead to an expansion of prisons and criminalization.

As Joanna Redden (2015, p. 129) has pointed out, a great deal of effort was required to move this set of ideas from the margins of political and economic life in the early 20th century to its current position as dominant political paradigm:

> Neoliberal ascendance required battling and undermining the postwar consensus about the need of organized capitalism, particularly given the widespread view that markets were prone to crises following the market crash of 1929 and the widespread experiences of poverty which followed. (Redden, 2015, p. 129)

Neoliberalism rooted itself in the crises of the 1970s (Couldry, 2010, p. 4). As Harvey argues (2005), neoliberal ideas had been occupying positions of influence of think tanks and other institutions during the 1970s. However, the decisive turning point came in 1979, when Margaret Thatcher came to power in the United Kingdom and, in 1981, when Ronald Reagan became president of the United States (Flesher Fominaya, 2014, p. 29–30). It is this context of a broader social and political transformation in which key institutions of the political field, particularly the organised social groups that made up the political public sphere, lost their centrality to people's live and commitments (Hallin, 2008, p. 47). According to Cammaerts (2015, p. 6), neoliberalism can be understood as 'a worldview that not only advocates a minimalist state, but above all promotes the primacy of the free market, capitalism, property rights and individualism in all walks of life'. Thus, neoliberalism

relies on a strong interventionist state to initiate and continue the marketization of society (Roberts, 2014, p. 43). As Hallin (2008, p. 52) has pointed out, neoliberalism was in part a very deliberate effort on the part of the economic elites to turn back the challenges to their power represented by the new social movements of the 1960s and 1970s. Despite significant contestation from politicians, organised labour or social movements, neoliberalism became the dominant economic model across the globe and many people began to see it as a natural 'common sense'. By 'common sense,' according to Stuart Hall and Alan O'Shea, we mean

> a form of 'everyday thinking' which offers us frameworks of meaning with which to make sense of the world. It is a form of popular, easily available knowledge which contains no complicated ideas, requires no sophisticated argument and does not depend on deep thought or wide reading. It works intuitively, without forethought or reflection. It is pragmatic and empirical, giving the illusion of arising directly from experience, reflecting only the realities of daily life and answering the needs of 'the common people' for practical guidance and advice. (2013, p. 8–9)

This political economic framework underlies common sense (the individualisation of everyone, the privatisation of public troubles and the requirement to make competitive choices at every turn), and it not only increased inequalities and hardship for millions of people around the world (Stiglitz, 2000), but also benefited millions of middle-class people in emerging market economies (Flesher Fominaya, 2014, p. 30). The philosopher Slavoj Žižek (2008, p. 2) describes this process as 'objective violence'. In his own words 'objective violence is precisely the violence inherent to this "normal" state of things, and is typically invisible to those who do not suffer it' (ibidem). William

I. Robinson (2014, p. 8) calls it 'structural violence',

> when the eighty-five per cent of the world's wealth is monopolized by just ten per cent of the world's people while the bottom half of adults worldwide owns barely one per cent of the total, when food stock are thrown into the oceans even as million even as million go hungry, when billions of dollars are spent on plastic surgery and cosmetics even as billions of people go untreated for easily curable diseases, and when more money is spent on prison-industrial complexes than on educational facilities. (Robinson, 2014, pp. 18–19)

The process of neoliberal globalisation was accompanied by a global political agenda of (selective) promotion by Western political leaders (Flesher Fominaya, 2014). The main purpose of global governance was to protect markets and investments and maintain the conditions for the successful pursuit of global capitalist enterprise (Hall, 2011, p. 716). Robinson (1996) argues that the promotion of democracy around the world by neoliberal elites can be seen as a sort of strategy whereby state power is legitimised so as to prevent the development of more radical political alternatives. This legitimisation required a major commitment to a new geopolitical order, which includes the construction of a ring bases, client states and dictators (many of whom have routinely used repression, violence, imprisonment and torture) (Hall, 2011, p. 716).

Following to Koenraad Bogaert (2013, p. 220), crucial for understanding the neoliberal shift in the Arab region is to question *who* makes neoliberal reforms happen and *why*. The conceptualization of neoliberalism as a class strategy 'allows us to understand the political nature of various power relations embedded within policies of economic integration and underline

their possible exploitative character (Bogaert, 2013, p. 219). Thus, the neoliberal reforms, whether in the Arab world or elsewhere, entailed the increase of capitalist class power over subaltern classes and their social interests. As a consequence, globalisation cannot be seen as a result of laws of nature but should be seen as a project (Bogaert, 2013, pp. 219-220). Many authoritarian regimes have been actively supported by Western democratic governments when it suits their political and economic interests, for example the United States' and European Union's long-standing support for Tunisian President Ben Ali's regime (Flesher Fominaya, 2014, p. 30), as we will address in Section 4.2. Throughout the developing and former colonial world, the post-war years witnessed the creation of new states with multilateral sponsorship, developmental assistance and economic incorporation. According to John K. Walton (1998, p. 466), the developmental state promoted an

> interventionist strategy through mechanisms to support the social wage and ensure the general welfare with central planning, social security, health care, workers compensation, minimum wage and trade unions rights. The developmental state was capitalist and dependent on trade and aid from Western industrial nations, but it also attempted to husband national capital in a set of policies that included import-substitution industrialization, capital and exchange rate controls, industrial protection, and joint investment adventures. (Walton, 1998, p. 466)

However, in the 1970s, after the debt crisis, the conditions of structural adjustment programs implied severe cuts in public budgets with the consequent loss of access to basic services. This fallout happened, among other places, in the Middle East and North Africa (MENA) region. For example, in Tunisia, between 1983 and 1992 the International Monetary Fund (IMF) imposed

structural adjustments, with privatization and an end to subsidies, as well as price controls, plus the lowering of trade barriers. Thus, globally neoliberal policies have been imposed on developing countries through the World Bank and the IMF (Hursh & Henderson, 2011, p. 174). That is, the fundamental mission of the neoliberal state is to create a 'good business climate and therefore to optimize conditions for capital accumulation no matter what the consequences for employment or social well-being' (Harvey, 2006, p. 25). Consequently, these policies produced increasing unemployment, especially for young people (della Porta, 2015, p. 31).

The next section focusses on the concept the precariat, which was coined in 2011 by Standing to refer the young people who are suffering the effects of the neoliberalism system.

4.1.3 The precariat, a new social class?

According to Tova Benski et al., 'the direct consequences of deindustrialization have included precarious conditions for workers, alarming levels of unemployment, rapidly growing inequality, and widespread poverty in many of the world's developed or developing economies' (Benski et al., 2013, p. 544). This process occurs at the same time that the rich elites of this new global economy have accumulated unimagined wealth (ibidem). In this context, as della Porta has pointed out (2015, p. 4), a new social group has emerged, the main actor in the wave of mobilisation rose in Iceland, in 2008, and carried through to Egypt, Tunisia, Spain, Greece, and Portugal, and later to Brazil, Turkey and the Ukraine. She, following Standing, calls to this new class 'the precariat', that is, the social precariat, young unemployed, or only part-time employed, with no protection, and often well educated (della Porta, 2015, p. 4). French

sociologists first used the term in the 1980s to describe temporal or seasonal workers (Standing, 2011, p. 9). At the end of the 1990s, the beginning of the 21st century, authors like Pierre Bourdieu, Serge Paugam and Manuel Castells saw precarity as the root of the new social question (Gouglas, 2013, p. 33). Manos Matsagganis (2011) defines 'the precariat' as a distinct analytical category that is characterised by forms of work and employment that go beyond non-standard part time and temporary work patterns.

The term 'precariat' was introduced by Standing (2011), who argues that neo-liberal policies and institutional change across the globe are producing growing numbers of people with common enough experiences to be called an emerging class (Savage, 2015, p. 351). The precariat, he says, 'is a new group in the world, a class-in-the-making […]. It has a distinctive bundle of insecurities and will have an equally distinctive set of demands' (Standing, 2011, pp. 1–2). Standing argues that globalisation has produced a

> class structure, superimposed on earlier structuration, comprising an elite, a salariat, proficians, an old 'core' working class (proletariat), a precariat, the unemployed and a lumpen proletariat (or 'underclass'). (Standing, 2014, p. 13)

In line with Mike Savage (2015, pp. 352–353), we think that the concept 'precariat' is preferable to the concept of 'underclass', which has been widely used in the past to refer a group of people 'below' the class system who have been excluded from the social mainstream. This term is sometimes used in a negative way, with the stigmatization of the poor. The concept of the precariat is more suitable because it draws direct attention to the way that the vulnerability of this group is linked to their structural

location in society. It also avoids the stereotypes: the precariat are not passive, culturally disengaged or morally limited.

In the line with this idea, the precariat has been conceptualised as follows,

> The precariat has class characteristics. It consists of people who have minimal trust relationships with capital or the state, making it quite unlike the salariat. And it has none of the social contract relationships of the proletariat, whereby labour securities were provided in exchange for subordination and contingent loyalty, the unwritten deal underpinning welfare state. (Standing, 2011, p. 8)

The precariat consists of people who lack the seven forms of labour-related security (see Table 10). These forms of security are summarised as

Type of security	Description
Labour market security	Adequate income-earning opportunities, at the macro-level, this is epitomised by a government commitment to 'full employment'
Employment security	Protection against arbitrary dismissed, regulations on hiring and firing, imposition of costs on employers for failing to adhere to rules and so on
Job security	Ability and opportunity to retain a niche in employment plus barriers to skill dilution, and opportunities for 'upward' mobility in terms of status and income
Work security	Protection against accidents and illness at work, through, for example, safety and health regulations, limits on working time, unsociable hours, night work for women, as well as opportunity to make use of competencies
Skill reproduction security	Opportunity to gain skills, through apprenticeships, employment training and so on
Income security	Assurance of an adequate stable income, protected through, for example, minimum wage machinery, wage indexation, comprehensive social security, progressive taxation to reduce inequality and to supplement low incomes
Representation security	Possessing a collective voice in the labour market, through, for example, independent trade unions, with a right to strike

Table 10. Forms of labour security. Source: Standing, 2011, p. 11

As della Porta et al. have pointed out (2015, p. 215), protest is the only resource through which the unemployed themselves occasionally enter the public sphere. For it to occur, the precariat needs to accomplish the following

> (1) Develop a group identity that overcomes the stigma associated with precarity; (2) radicalize their repertoire of action in what we call here 'dramatization' of protest, to make their claims visible and keep pressuring political elites; (3) establish organizations and networks promoting their claims and placing their struggles within a large framework of social change; and (4) seize opportunities provided by political elites and institutions. (della Porta et al., 2015, p. 215)

As we have seen, precariousness was a social and cultural condition for many participants in the protests. Following della Porta (2015, p. 213–215), in the anti-austerity movements there were present a generation that is characterised by high levels of unemployment[2] and under-employment (that is, employment in positions which are ill-paid and unprotected). Together with them, in the same or different protests, we found other social groups that have lost most from the neoliberal attacks to social and civil rights.[3] Relatedly, della Porta (ibidem p. 219) notices the existence of protest that connects the old labour with the new precarious workers, in broad coalitions of those who feel penalised by neoliberalism globalisation.

If the industrial workers constituted the base of the labour movement, and the sociocultural professions that of the new social movements, the anti-austerity protests have brought into the protests social groups that are either losing or have never achieved social protection (della Porta, 2015, p. 49). As della

[2] As we will note in Section 4.2, in Tunisia by 2010 the percentage of unemployment young people aged 15–24 with higher education was 61.4% (Haouas et al., 2012, p. 404).

[3] In the case of Tunisia, by early January 2011, all of Tunisia's lawyers were on strike, coordinated by the National Bar Association. Teachers joined the national strike the next day (Goldstone, 2011, p. 458).

Porta argues, 'if Fordism was the capitalist form in which the labour movement developed, and post-Fordism the capitalist form of New Social Movements, neoliberalism and its crisis represents the capitalist environment of today's anti-austerity protests' (della Porta, 2015, pp. 49–50).

4.1.4 The crisis of legitimacy of the neoliberal system

As developed by Tova Benski et al., (2013, p. 544), one common theme of these various movements is that each case, the mobilisation was the consequence of a crisis of legitimacy. The term 'legitimacy' refers to the way that a government or social system attempts to justify its existence and power (Reyes, 2010, p. 246).

Jürgen Habermas defines advanced capitalism (organised or state-regulate capitalism) by a process of economic concentration; thus it encompasses the rise of national and, subsequently, multinational corporations, and the organisation of markets for goods, capital, and labour (Habermas, 1988, p. 33). In his vision, state intervention supplementing the market marks the end of liberal capitalism (della Porta, 2015, p. 119). However, this process is a source of tension, as 're-coupling the economic system to the political—which in a way repoliticises the relation of productions—creates an increased need for legitimization' (Habermas, 1988, p. 36).

According to Habermas (1988, p. 2), 'crises arise when the structure of a social system allows fewer possibilities for problem solving that are necessary to the continued existence of the system. In this sense, crises are seen as persistent disturbances of *system integration*' (his emphasis). According to Habermas (1988, p. 46), input crises have the form of a

legitimation crisis; the legitimizing system does not succeed in maintaining the requisite level of mass loyalty while the steering imperatives taken over from the economic system are carried through. For the Austrian scholar, the legitimation crises of advanced capitalism take place at both the macro and the micro levels. The objective macro-level crises include the economy, the state, and the cultural system.

The economic crisis in the economic system tends to transform itself and lead to political conflicts. As della Porta (2015, p. 119) puts it, 'economic crises mutate into political crises', and as Habermas wrote,

> the political system requires an input of mass loyalty that is as diffuse as possible. The output consists in sovereignly executed administrative decisions. Output crises have the form of a rationality crisis in which the administrative system does not succeed in recognising and fulfilling the imperative received from the economic system. (1988, p. 46)

The subjective moments of these macro-level economic and political crises infiltrate the lifeworlds of individuals, where motivated identities are experienced and performed (Benski and Langman, 2013, p. 529). As Edwards has pointed out (2008, p. 302), Habermas' concept of the socio-cultural 'lifeworld' denotes areas of everyday life in which actions must be carried out communicatively. Habermas also talks of the lifeworld in terms of three structural components, which are interwoven in communicative interaction: (1) society (e.g. solidarities, social ties, and networks); (2) personality (e.g. aspects of personal identity including skills and competencies that have been acquired through socialisation); and (3) culture (e.g. shared traditions, knowledge, meanings and memories)' (Edwards,

2008, p. 303). A motivation crisis happens, in fact, as the norms and values into which people are socialised are in tension with the imperative of occupational system, questioning capitalism and the related loss of autonomy of the lifeworld. Traditional values, which were important in supporting bourgeois society, are weakened in this development (della Porta, 2015, p. 120). As these meaning are weakened, they must be replaced by new values. Social movements then emerge as places to address motivational crises as cultural discomfort (Buechler, 2000), with calls for the development of public spheres in which people can communicate rationally (della Porta, 2015, p. 120).

The 'system-lifeworld' and its ability to generate a public sphere is the hallmark of Habermas' general theory (Edwards, 2004, p. 115). Following to Edwards (ibidem), Habermas' new social movements theory are to be understood in terms of 'internal colonization'. In that sense, new social movements are a reaction to the tendency in advanced capitalist societies for the lifeworld to be involved by the 'economic-administrative complex' of the system (Habermas, 1981, p. 33). The system, made up of institutions of the state and economy, impinges negatively upon the lifeworld, made up of the public and private spheres of everyday life (e.g. family, work, education). Increasingly, the instrumental rationality of modern bureaucracies and market forces invades even the most private areas of people's lives, and power and decision-making are centralised into fewer hands (Flesher Fominaya, 2014, p. 88). Habermas argues that the central conflicts in contemporary advanced capitalist society have shifted from capital-labour to conflict over the colonization of lifeworld system. As Edwards has pointed out (2004, p. 116), colonization processes, therefore, provide new sources of struggle and change in agents seeking to defend traditional lifestyles or to institute new ones on their own terms. This

struggle raises both legitimation and motivation crises (Habermas, 1988) that cannot be solved in system terms and act to perpetuate the lifestyle and identity woes of the new protestors. Habermas argues that

> The new conflicts arise in areas of cultural reproduction, social integration and socialisation. They are manifested in the sub-institutional, extra-parliamentary forms of protest. The underlying deficits reflect a reification of communicative spheres of action; the media of money and power are not sufficient to circumvent this reification. The question is not one of compensation that the welfare state can provide. Rather, the question is how to defend or reinstate endangered lifestyles, or how to put reformed lifestyles into practice. In short, the new conflicts are not sparked by problem of distribution, but concern the grammar of forms of life. (Habermas, 1981, p. 33)

This migration of system crises into the lifeworld in the form of rising prices, low incomes, or for many, often educated youth, no incomes at all, means individual actors experience distress. Social movements against neoliberalism are embedded in a crisis of legitimacy that takes the particular form of a lack of responsibility toward citizens' demands (della Porta, 2015, p. 217). In addition, as Benski and Langman (2013, p. 530) have pointed out,

> [these emotions] the humiliation and degradation that people experience when they are unable to work in ways that provide both substance and dignity, often lead to what Durkheim called 'fatalistic suicide' as a last resort, as escape from the pains of living.

This last-resort escape is clearly exemplified by the Mohamed Bouazizi's self-immolation on 17th December 2010. Bouazizi's

suicide symbolised the frustrations of millions of Tunisians with the difficulties of everyday life and their disgust toward a government that not only showed little interest in alleviating their plight but also often appeared to complicate it further (Perkins, 2014, p. 223). Bouazizi's self-immolation evidenced the increasing precarity of life in peripheral Tunisia in terms of job insecurity, the quickly deteriorating state welfare provisions and the repression of claims for social justice. His self-immolation was one of the events that ignited the Arab Spring.

4.1.5 Conclusion

Neoliberal ideology has spread across the globe in the second half of the 20th century and the beginning of the 21st century. This system promotes individual and markets freedoms within an institutional framework characterised by a strong private property, rights, free market, and free trade.

The direct consequences of neoliberalism in society have included precarious conditions for workers, increasing levels of unemployment, rapidly growing inequality and widespread poverty around the world. In this context, a new social group has emerged, called the 'precariat' (Standing, 2011). Young people, the majority of whom are highly educated are unemployed or face part-time employed, form this group. Although the group is heterogeneous, the mobilisations were the consequences of a crisis of legitimacy of the system that lacks responsibility to towards citizens" demands.

These protests have been seen as part of anti-austerity movements, mobilising in the global context of the crisis of neoliberalism, but in order to understand their main characteristics in terms of social basis, identity and organisational structures, we should look at the specific

characteristics of the socioeconomic, cultural and political context in which these protests developed. In that sense, this study focusses on the Arab Spring in Tunisia. In this particular context, the self-immolation of Mohamed Bouazizi symbolised the frustrations of millions of Tunisians with the difficulties of everyday life and their disgust toward a government that not only showed little interest in alleviating their plight but also often appeared to complicate it. For this reason, interpreting the Arab Spring as merely a call to representative institutions is misleading; the protestors called for freedom, but they also called for other social conceptions that oppose the neoliberal model (della Porta, 2013, pp. 70–80).

Following to De Schmet (2016, p. 226), although it is difficult to distinguish conjectural from organic crises, it seems reasonable to conclude that the financial crisis of 2008, the slow growth rates in core Western capitalist nations the Arab Spring, Latin America and South-European leftists populism, and the wave of recent protests, from Tahrir Square to Occupy Wall Street, are signs of the organic crisis of neoliberal capitalism (ibidem).

4.2 The Opportunity Structures (Tunisia, 1987-2010)

Introduction

The aim of this section is to provide a background to the social, political and economic situation in Tunisia before the uprising started. The political opportunity structures refer to the factors that are exogenous to social movements and constitute the preconditions for promoting action (Coretti, 2014: 13). Opportunity structures are attributes of a social system that facilitate or constrain movement activity (Garret, 2006, p. 212). According to Tarrow, opportunity structures are the 'dimensions of the political environment that provide incentives for people to undertake collective action by affecting their expectations for success or failure' (Tarrow, 1998, p. 85).

Former Tunisian president Zine al-'Abidine Ben 'Ali was the first Arab leader to be ousted in the Arab Spring, and he fled to Saudi Arabia on 14 January 2011, after weeks of protests in

Tunisia. Tunisia has one the Arab world's best educational system, its largest middle class, and its strongest organised labour movement. But, according to Lisa Anderson (2011, p. 3), behind those achievements, Ben Ali's government tightly restricted free expression and political parties. Also, Ben Ali's family was unusually personalist and predatory in its corruption (ibidem). Resembling nothing so much as a family of Mafioso, they took advantage of their privileged position to amass a vast collection of business enterprises and real estate holdings that appeared to derive from the recent growth of the private sector (Perkins, 2014, p. 219).

This chapter focusses on the opportunity structures of the Arab Spring, thus, the main conditions that facilitated the uprising. Section 4.2.1 draws a brief outline of Ben Ali's government from 1987–2010. Section 4.2.1.1 concerns the economic reform and political de-liberalization which took place in Tunisia under the regime of Ben Ali. Section 4.2.1.2 considers one of the main problems that Tunisia experienced before the uprising: the high rate of youth unemployment. Section 4.2.1.3 regards the official and personal corruption of Ben Ali and his relatives, especially the family of his wife, Leila Trabelsi, and, finally, section 4.2.1.4 turns to the online censorship carried out by the government in Tunisia since the internet was launched in the country for first time in 1991 until 2011, the year that the uprising took place.

4.2.1 The opportunity structures

The Tunisian uprising of late 2010 culminated with the departure of Zine al-'Abidine Ben 'Ali and his family on 14 January 2011, ending 23 years in power. Ben Ali was only the second president that Tunisia has had since it became

independent of France in the mid-1950s. He gained that office by means of a 1987 constitutional coup against 84-year-old Habib Bourguiba, whose erratic behaviour during his later years damaged his revered status as one of the founding fathers of Tunisia (Schraeder and Redissi, 2011, p. 6). Ben Ali, convinced by the elderly chief executive's physical deterioration that the older man no longer had the capacity to govern, requested that a team of physicians asses the state of the president's health. Thus, in accordance with the provisions of the constitution (Article 57), Ben Ali declared Bourguiba incapable of remaining in office, assuming the presidency on November 7, 1987. Habib Bourguiba retired to Monastir, where he died 13 years later at the age of 97 (Perkins, 2014, p. 178).

Habib Bourguiba, who was known as 'Father-of-the-Republic' and 'President-for-life', had ruled Tunisia very much like an absolute monarch since achieving independence from France in 1956 and abolishing the monarchy in 1957 (Erdler, 2010, p. 14).

The transfer of power elicited no protests on behalf of a restoration; nor were there jubilant celebrations. Rather, the prevailing mood was one of gratitude that the transition had occurred constitutionally, peacefully, and seamlessly (Perkins, 2014, p. 188). Ben Ali also became a head of the *Partit Socialiste Dusturien* (PSD), which had been led by Habib Bourguiba. To symbolise the advent of a new leadership, the PSD was renamed the *Rassemblement Constitutionnel Démocratique* (Democratic Constitutional Rally, RCD). The first RCD congress, which took place in 1988, invested Ben Ali with complete control of the party and by extension, of the state (Perkins, 2014, p. 188).

As Steffen Erdler (2010, pp. 14–17) has pointed out, three phases can be identified in Ben Ali's ruling. Ben Ali's bloodless coup occurred in a moment of deep economic crisis and political

agitation, raising hope that after three decades of single-party rule, he would initiate a process of democratization. In a first phase of his rule, which lasted until 1988–1989, Ben Ali appeared to keep the promises he had made. The reforms he carried out included the abolition of the lifetime presidency, the expansion of public liberties, the legalization of opposition parties, and the establishment of the market economy (Erdler, 2010, p. 15).

One year after the coup, a 'National Pact' was concluded among the country's political forces. According to Perkins (2014, p. 194), this pact acknowledges the centrality of the Arab and Islamic heritages of Tunisia that many citizens believed the Bourguiba government had deliberately disparaged. The government offered a significant concession by accepting the pact's proposal to remedy the political shortcomings of the past through pluralism, respect for human rights, and explicit guarantees of basic freedoms. For instance, the National Pact appeared to offer the *Mouvement de la Tendence Islamique* (Islamic Tendency Movement, MTI, founded in 1981), its first opportunity to enter in the political arena (ibidem). In order to conform to electoral laws prohibiting religious terminology in the names of political parties, the organisation became the *Hizb al-Nahda* (Renaissance Party) and applied as a political party. Thus, post-coup Tunisia seemed to basically follow the political trajectories of many other democratizing countries worldwide (Erdler, 2010, p. 15).

In a second phase of his regime, which began in about 1990–1991, Ben Ali reverted to straightforward top-down rule, systematically reasserting the political power of the central state, and suppressing every kind of contestation of his regime. At the same time, he radically restructured the system of production, which had been dominated by the public sector, and

largely insulated from international competition (ibidem).

This system reconfiguration crossed a decisive threshold in 2002–2004 when the ‘Architect of the change’, as Ben Ali had come to name himself, de facto re-established the life-time presidency of older times (Erdler, 2010, p. 16). He abolished the constitutional restrictions that had been introduced only a few days after the coup in 1987. He did so with the support of a referendum which took place in 2002, and which yielded the unusual 99.52% of ‘yes’ vote.

4.2.1.1 Economic reform and political de-liberalisation in Tunisia (1987–2010)

According to Tsourapas (2013, p. 23), the economic liberalization in Tunisia under Zine al-‘Abidine ben ‘Ali allowed for a deeper penetration of state power into society. This section will examine two central institutions of the reform process: *Banque Tunisienne de Solidarité* (Tunisian Solidarity Bank, BTS) and *Fonds de Solidarité Nationale* (National Solidarity Fund, FSN).

The creation of these institutions occurred at a turning point in Tunisian history: a few years after Ben Ali replaced President Habib Bourguiba in November 1987, instituting a period he called *Le Changement* (Change), macro-economic figures began showing significant improvement (Tsourapas, 2013, p. 28).

The FSN (known as *Caisse 26-26* or 26-26[1]) was introduced in 1992 as a new mechanism for countering poverty. It was instituted and funded by a combination of tax-deductible donations from Tunisian citizens and firms, donations from individuals, institutions, agencies abroad, budget allocations

[1] 26-26 refers to the postcode to which people were encouraged send donations.

and treasury credits (Murphy, 2011, p. 157). The fund contributes to developing infrastructure projects around the country, such us the construction of roads, housing, health, education, and other community facilities. The donations collected annually, essentially forcing contributions ranging from as little as 2 Tunisian dinars (DT) per month to more than 10,000 DT per year (Tsouparas, 2013, p. 28).

The FSN initially targeted 1,100 of the least developed areas of the country (*zones d'ombre*, or shadow zones) as beneficiaries of the projects. In addition to helping reduce poverty to the lowest level in the Arab world other than in the oil-based economies, this approach denied Islamist social agencies of the opportunity to attract adherents by supplying basic services in underprivileged areas (Perkins, 2014, p. 202). By 2008, the FSN had raised DT 1 billion, benefiting more than 2 million citizens (Sadiki, 2008, p. 126–127). The FSN had the potential not only to win support for the RCD and, consequently, for the government but also to undermine the Islamists (Perkins, 2014, p. 202).

The creation of the BTS is similarly linked to economic neoliberalism. According to its 2007 director, it was instituted in 1997, shortly after the FSN, in order to shift focus towards Tunisian citizens rather than infrastructure projects (Bahoury, 2007). It worked in a way similar to the FSN: the neoliberal restructuring of the banking system impeded access to the funds necessary for small business owners and farmers, who could now turn to the BTS for their borrowing needs. It would provide small loans for setting up local businesses or improving living conditions (Tsouparas, 2013, p. 28). By 2007, officials spoke of 220,000 micro loans of DT 176 million in total (Bahoury, 2007).

According to Murphy (1999, p. 141), privatization was also at the heart of this strategy for development. By 1995, some 60 public enterprises had been wholly or partially privatised (ibidem). However, in 1996 the World Bank pressured the government to accelerate the process, making the disbursement of further loans to the financial sector and for the restructuring of the private sector conditional upon a combination of privatization commitments and further reforms to the financial sector itself (ibidem, p. 142). Thus, a new administrative unit was establish in the Ministry for Economic Development which would design and submit proposals for further privatization in an effort to accelerate the process. Thus, as Murphy explains,

> in November 1996, a new 'phase' of privatization was announced, one which would re-focus attention away from the marginally performing industries such as hotels, textile factories and chemical manufacturers, towards a disengagement from industries within the mechanical manufacturing, agribusiness, tourism and transport industries. Finally, the government announced in early 1997 that it would begin the privatization of municipal utilities, starting with waste collection and sanitation services. (1999, p. 142)

In line with this phase, in 1994 the government introduced a new banking law, which completed the liberalization of that sector and allowed deposit money banks to expand the range of their activities to include new areas, such as portfolio management, regular-, medium- and long-term lending and financial restructuring services (Murphy, 1999, p. 145). Thus, the regulatory role of the *Banque Central de Tunisie* (BCT) was reinforced, but banks received more freedom to extend credit and take deposits (ibidem, p. 146).

Analyses of the BTS published as in first year of operation illustrate the narrative of social responsibility that the regime wanted to accompany economic liberalization measures: the BTS was a bank without bailiffs or secretaries, or drivers or files, or reference numbers (Tsouparas, 2013, p. 29).

As Tsouparas (2013, p. 29) has pointed out, on the one hand, it could be argued that the FSN and the BTS served a clear purpose, attempting to counterbalance any recessionary conditions accompanying neoliberal economic austerity programs and any bias towards elites that characterised Tunisian state-asset privatization (King, 2003, p. 37). Neo-liberal reforms in Tunisia, to an extent, met the country's need for economic reform and partially achieved the aims of the IMF and the World Bank (ibidem). In fact, the IMF and the World Bank usually cited Tunisia as an example of successful adjustment. At the same time, however, while the economy grew in general terms, and attracted international investments, and poverty was reduced in absolute terms, the inequality among Tunisians increased (Warkotsch, 2014, p. 98).

Other important points during this period included the dependency of external rents, for example, preferential trade agreements with the European Union. But some Western governments, as well as foreign investors, started to value the stability and the conditions Ben Ali's regime could provide. The consequence of this valuation was that Ben Ali's regime started to rely on administrative repression, which was invisible to foreign powers, more than other sorts of political repression. In that sense,

> a deeper analysis of the FSN and the BTS, as they were conceived and functioned under Ben Ali, indicates that they went beyond redistributive policies, devising novel

> ways of state surveillance, facilitating repression and, ultimately, ensuring the durability of authoritarian power structures […] One manner through which the two institutions devised ways of impinging on Tunisian society was through the establishment of novel modes of dependence during the volatile times of market liberalization. (Tsouparas, 2013, p. 29)

Both institutions moved a step further: beyond merely enforcing quietism, they would actively promote the regime and, invariably, the president himself. The BTS was utilised as a springboard for political recruitment, especially among young Tunisian graduates who showed an increased lack of interest in associating themselves with Ben Ali's party (Tsouparas, 2013, p. 30). On the other hand, Ben Ali ensured that the FSN and the administration of solidarity funds also became associated with him. According to Beau and Tuquoi (2002, p. 148, apud Tsouparas, 2013, p. 30), 'the FSN was incorporated in the president's personality cult, presenting Ben Ali as "a friend of the poor"'. The FSN imposed a consensus that promoted the idea that Tunisians needed to work together to battle poverty via the 26-26 scheme. Although the FSN was not officially created as an initiative of Ben Ali himself, it operated under his exclusive custody (Warkotsch, 2014, p. 98). Non- participation in the FSN was portrayed as more than merely abnormal, and it implied comprehensive tax audits, potential revocation of licenses and general administrative delays (Tsouparas, 2013, p. 31). By linking donations to 26-26 with the safeguarding of the country's stability, the regime exploited Tunisians' sense of patriotism, using them to identify nonconformist elements. Through the FSN, the regime moved beyond brutal repression into disciplinary control; every Tunisia was to be observed, evaluated and classified (ibidem). Ben Ali's regime relied on its

networks of informants, a police force numbering between 80,000 and 133,00, for a country of 10 million people or the 7,500 local branches of the RCD with their 'huge propaganda functions as well as ancillary police duties involving surveillance and information gathering' (Owen, 2012, p. 39).

4.2.1.2 Evolution of unemployment in Tunisia (1984–2010)

Several factors contributed to the Tunisian uprising. One of these key factors is the significant role played by the lack of economic opportunities for unemployed youth (Kaboub, 2012, p. 305).

In 2010, the United Nations Population Division estimated that 52% of Tunisia's population was under the age of 30 (Kaboub, 2012, p. 306).

The employed population in Tunisia aged 15 and over reached 3,155,400 in 2008, an increase of 2.6 per year (Haouas, 2012, p. 399). Figure 8 shows the official data on unemployment between 2005 and 2010. The national unemployment rate (calculated among workers aged 15 and over) is stable between 2005 and 2010. The evolution of the unemployment rate by gender shows that it has declined among men from 12.1% in 2005 to 10.9% in 2010, while it increased among women from 15.2 % in 2005 to 18.9% in 2010.

	2005	2006	2007	2008	2009	2010
Men	12.1%	11.5%	11.3%	11.2%	11.3%	10.9%
Women	15.2%	15.1%	15.3%	15.9%	18.8%	18.9%
Average	12.9%	12.5%	12.4%	12.4%	14.2%	13%

Table 11. Rate of the unemployment % (Tunisia, 2005–2010). Source: Enquête. Nationale sur l'emploi (2005, 2006, 2007, 2008, 2009, 2010), INS

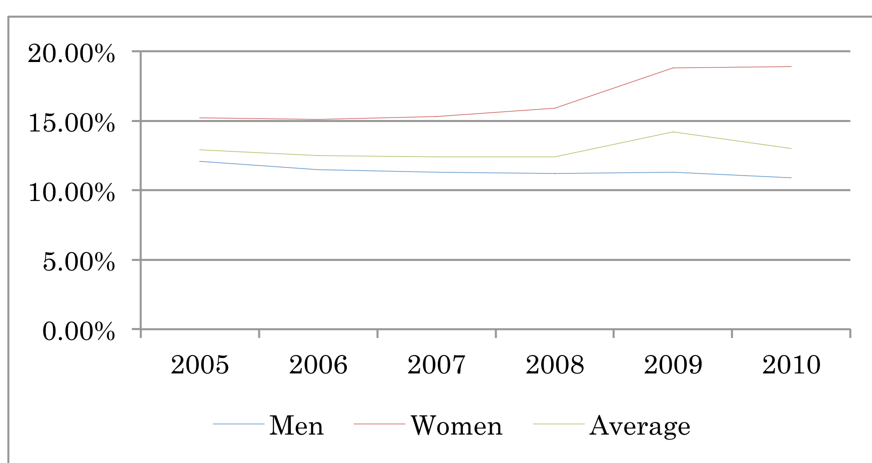

Figure 8. Evolution of the unemployment rate % (Tunisia, 2005–2010). Source: Enquête Nationale sur l'emploi (2005, 2006, 2007, 2008, 2009, 2010), INS

In Tunisia, official data on unemployment is disaggregated by educational level: that is, from unable to read (illiterate), to individuals with primary education, secondary education and higher education. Over the past two decades, the educational characteristics of the unemployed have changed dramatically (see Table 12 and Figure 9). Unemployment has become particularly endemic for those with higher education, which is a change from earlier years. The unemployment rate for an

individual with higher education has increased from 14% in 2005 to 21.9% in 2010.

This is the opposite of the trend for those with primary education, which decreased from 14.3% in 2005 to 10.4% in 2010. The rates of unemployment for individuals with less than secondary education show a constant trend; that is, there is no relevant increase or decrease.

	2005	2006	2007	2008	2009	2010
Illiterate	6.3%	6.4%	4.4%	4.2%	6.1%	5.7%
Primary	14.3%	13%	11.5%	10.6%	10.4%	9.2%
Secondary	13.3%	12.5%	13.5%	13.4%	14%	13.7%
Higher	14%	16.9%	18.2%	20%	21.9%	22.9%
Average	12.9%	12.5%	12.4%	12.4%	13.3%	13%

Table 12. Unemployment rate by level of education in percentage (Tunisia, 2005–2010). Source: Enquête Nationale sur l'emploi (2005, 2006, 2007, 2008, 2009, 2010), INS

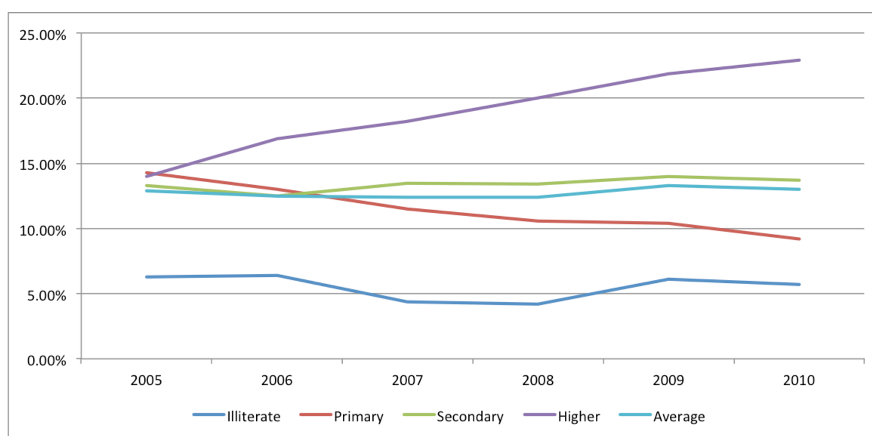

Figure 9. Evolution of the unemployment rate by level of education in percentage (Tunisia, 2005–2010). Source: Enquête Nationale sur l'emploi (2005, 2006, 2007, 2008, 2009, 2010), INS

According to Abdelaziz Ben Sedrine, Halled and Said (2006, cited in Haouas et al., 2012, p. 400), unemployment among graduates or higher education is explained by the following factors: (a) the university system continued to train for the sector of employment in the public sector, which rewards school level even if accumulated degrees do not improve productivity; (b) job seekers continue to be attracted by the benefits of non-wage public sector employment such as job security and holidays; and (c) these job seekers have job expectations that are too optimistic, while their actual qualifications do not correspond to the demands of the private sector.

Age	2005	2006	2007	2008	2009	2010
15-19	27.7%	27.9%	29.3%	29.6%	33.6%	28.7%
20-24	28.4%	27.6%	27.3%	27.9%	29.9%	29.7%
25-29	21.6%	21.1%	21.8%	22.9%	25.7%	24.2%
30-34	11.6%	11.1&	11.6%	11.5%	11.4%	12.9%
35-39	6.3%	6.6%	5.8%	5.4%	5.6%	6.1%
40-44	4.8%	4.4%	3.9%	3.3%	4.3%	3.8%
45-49	3.8%	3.9%	3%	2.9%	3.9%	3.2%
50-59	3.2%	3.5%	2.5%	2.6%	3.2%	2.8%
60+	1.2%	2.2%	2.4%	1.8%	1.2%	3%
Average	12.9%	12.5%	12.4%	12.4%	13.3%	13%

Table 13. Unemployment rate by age percentage (Tunisia, 2005–2010). Source: Enquête Nationale sur l'emploi (2005, 2006, 2007, 2008, 2009, 2010), INS

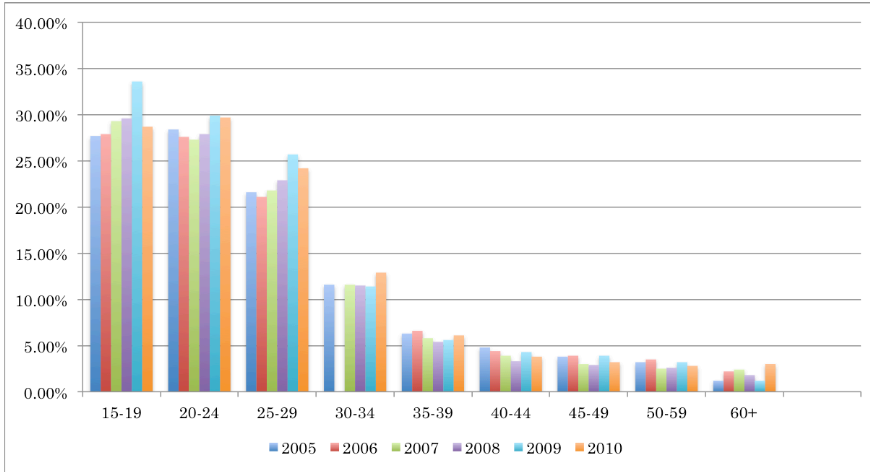

Figure 10. Evolution of unemployment rate by age percentage (Tunisia, 2005–2010). Source: Enquête Nationale sur l'emploi (2005, 2006, 2007, 2008, 2009, 2010), INS

Focus on the previous months of the Tunisian uprising and based on the previous work of Haouas et al. (2012, p. 406), Table 13 uses microdata from the *2010 Labour Force Survey* to estimate the conditions of the Tunisian labour market leading up the protests of late 2010. The Tunisian labour force survey collected data on education, employment and other demographic factors. According to these figures, the labour market for young, educated Tunisians continued to deteriorate from the situation at the end of 2010.

Panel A		Illiterate	Primary	Secondary	Higher	All
Youth	Men	19.2%	23.4%	28.8%	56.4%	28.4%
15-24	Women	20.2%	24.6%	28.3%	64.5%	33.9%
	All	19.7%	23.7%	28.7%	61.4%	30%
Panel B						
Ratio of Youth to Adult						
	Men	4.27%	3.71%	3.56%	4.29%	3.74%
	Women	3.16%	2.32%	2.25%	2.10%	2.11%
	All	3.79%	3.39%	3.15%	2.87%	3.06%

Table 14 Unemployment rates of youth and adults by education level (Tunisia, 2010). Source: Haouas et al., 2012, p. 404

Table 14 shows the youth and adult unemployment rates by education level. As seen in earlier tables, youth have had higher unemployment rates than adults, between two and four times the unemployment rate of adults in fact. For example, illiterate young men have an unemployment rate (19.2%) which is 4.27 times that of adult men (4.5%). Young women with a higher education have an unemployment rate of 64.5%, which is still more than twice that of women that are over 25 (30.7%). Comparing these statistics with the overall trends presented earlier, it is clear that although the youth are more than proportionately effected by unemployment, higher unemployment for more educated workers is effecting both youth and adults. According to Mehdi Marbouk (2011, p. 628),

the financial and administrative corruption of the previous regime acted as an obstacle to encourage investment in the economy, which could have helped to absorb this number of unemployed yet highly qualified young people.

According to these rates of youth unemployment, many young Tunisians found themselves compelled to accept less prestigious and lower-paying positions than they believed their educations had earned them (Perkins, 2014, p. 219). As Mehdi Marbouk, according to a United Nations Development Program report, has pointed out, this situation was an important factor in the growth of a 'culture of suicide which disdained the value of life, finding death an easier alternative because the lack of values and a sense of anomie' (2011, p. 629). This, it suggested, was particularly true of unemployed and marginal youth, so that death was more attractive than life under such conditions, as a statement about the plight of the individual in such circumstances (ibidem). As Table 15 shows, the distribution of the cases over the years before the revolution confirms that most of the victims were male (81.8%), from urban cities (72.5%), aged between 20 and 39 (46.7%) and unemployed (53.1%).

Number of cases		334
Gender		
	Male	81.80%
	Female	18.20%
Age		
	<18	7.50%
	18-19	4.20%
	20-29	26.90%
	30-39	19.80%
	40-49	18.30%
	50-59	12.90%
	60-65	3.30%
	>65	7.20%
Origin		
	Urban	72.50%
	Rural	27.50%
Occupation		
	Unemployed	53.10%
	Labour	20.10%
	Student	14.30%
	Functionary	8%
	Manager	1.30%
	Retired	3%

Table 15. Distribution of suicide data before the Tunisian Revolution (Tunisia, 2007–2010). Source: Ben Khelil et al., 2016, p. 4

4.2.1.3 Corruption in Tunisia

Over the past years, corruption has increased in Tunisia. According to Transparency International, the annual index of corruption perception fell from 33% in 1998 to 77% on 2013 in Tunisia (Hamdi and Hamiki, 2015, p. 13). As Figure 11 shows, an examination of the most corrupted sectors in Tunisia reveals

that the police are the most corrupt, with a level of 51%, followed by the parliament members and government officers, at levels of 32%, and judges and magistrates, at 30%.

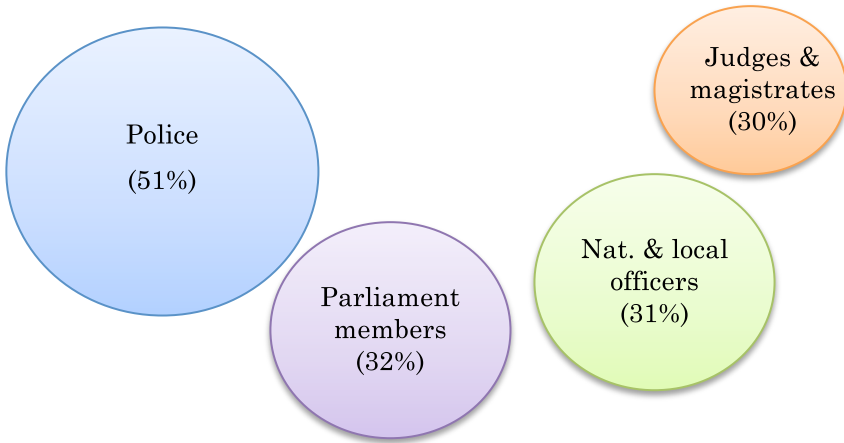

Figure 11. Corruption in Tunisia by sectors. Source: WJP Rule of Law Index.[2]

During the period of ex-President Ben Ali's regime, corruption was widespread in Tunisia and bribery was a common practice (Hamdi & Hakimi, 2015, p. 12). As Angelique Chrisafes has pointed out (2011, ¶ 7), the ex-president Ben Ali and his relatives plundered about one third of the country's economy. As an example, according to Heldi Hamdi and Abdelaziz Hakimi (2015, p. 12), it appears that Ben Ali and his family employed the money collected by the FSN mechanism for their personal use. In the aftermath of the Tunisian revolution, assets of Ben Ali's clan were confiscated, as ordained by the new government by means of a decree (called Décret-loi n° 2011–13).[3]

According to the report *All in Family. State Capture in Tunisia*,

2 The full report is available at
http://www.tunisiainvestmentforum.tn/En/upload/1364338993.pdf
[last accessed April 18, 2016].

3 http://www.legislation-securite.tn/fr/node/30884 [last accessed April 18, 2016]

published in 2013 by the World Bank,[4] the confiscation involved 114 individuals, including Ben Ali himself, his relatives and his in-laws, and concerned the period from 1987 until the outbreak of the revolution. The seized assets included some 550 properties, 48 boats and yachts, 40 stock portfolios, 367 bank accounts, and approximately 400 enterprises (not all which operated in Tunisia). The confiscation commission estimated that the total value of these assets combined was approximately USD 13 billion, or more than one quarter of Tunisian GDP in 2011. Moreover, according to statements of Swiss authorities on the amounts frozen since early 2011, Ben Ali and his inner circle are supposed to have about CHF (Swiss Franc) 60 million in Swiss bank accounts (Moser, 2014, p. 131).

4.2.1.4 Online censorship in Tunisia: 1991–2010

The Internet was first launched in Tunisia for public use in Tunisia in November 1996, and broadband connections were first made available in November 2005 (Freedom House, 2012, p. 95). Internet censorship and control were commonplace in Tunisia since the Internet became available to the public in 1996 (Wagner, 2012, p. 484). Based on the previous work of Ben Wagner (2012), this section aims to understand how online censorship worked in Tunisia during the regime of Ben Ali.

The Tunisian Internet began in 1991 as a 'research tool, free of any censorship or surveillance' (Silver, 2011, p. 6). While not available for public access, this period was marked by a lack of state control in which technically adept users could use the Internet as these pleased (York, 2012). From 1991 to 1996, the

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[4] Available online at http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2014/03/25/000158349_20140325092905/Rendered/PDF/WPS6810.pdf [last accessed April 18, 2016]

Tunisian Internet was an open research network, which was not commonly accessible for the public, but it was free of censorship. However, it changed in 1996, with the creation of the *Agence Tunisienne d'Internet* (Tunisian Agency of Internet, ATI) and the introduction of public access to Internet (Wagner, 2012, p. 485). Then, Tunisia's filtering and censorship apparatus grew multilayered and extensive. The government employed three main techniques as part of its internet control strategy: technical filtering, post-publication censorship, and proactive manipulation (Freedom House, 2011, p. 96).

It will be argued in the following that the history of internet censorship in Tunisia needs to be seen as a multi-stage process, in which different parts of the regime's capacity developed over time, as depicted in Figure 12.

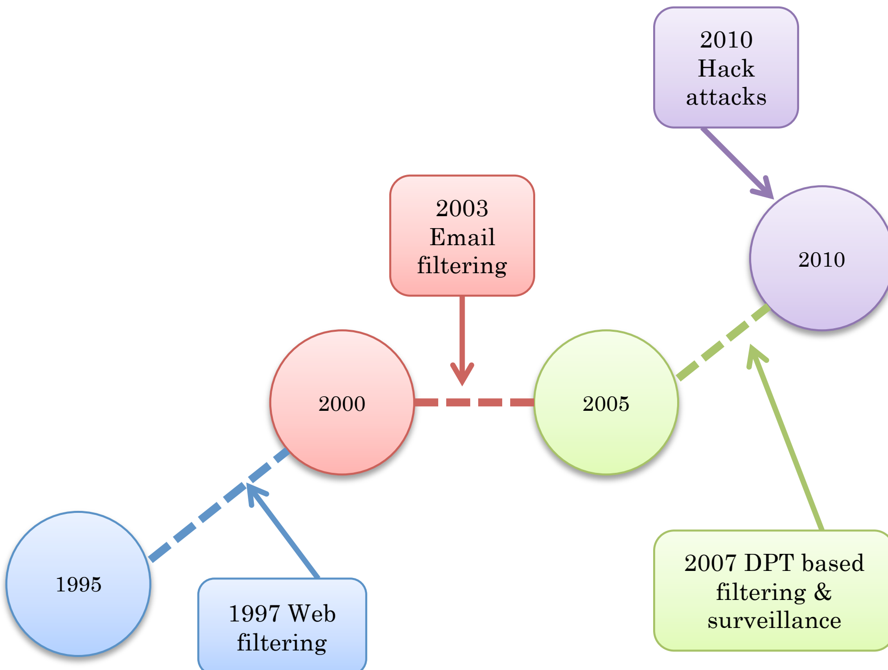

Figure 12. Stages of censorship and filtering (Tunisia, 1997–2011). Source: Wagner, 2012, p. 486

In the initial period of Internet connectivity in Tunisia, the connection to the outside world was a relative small affair. However, when the ATI was created in 1996, the process of creating the first censorship regime in Tunisia began. The ATI installed web-caching proxies on the centralised Tunisia Telecom Internet Infrastructure, where it had control (Wagner, 2012, p. 486). All of Tunisia's Internet connectivity flowed through a single gateway controlled by the ATI.

In response to the perceived insufficiency of web-based filtering and 'dissidents [who] started using e-mail to distribute the contents of banned sites' (Silver, 2011, p. 6), the ATI introduced email-filtering solutions in the early 2000s (Wagner, 2012, p. 487). The email filtering was done manually by operators in the Interior Ministry rather than the ATI, which saw itself as a technology provider that enabled censorship and control but did not actually partake in censorship (Elkin, 2011). Instead, the Interior Ministry operators went through emails, sometimes dropped or modified the contents, and then forwarded emails (Wagner, 2012, p. 487). The solutions employed thus far were relatively effective at controlling content on the Tunisian Internet.

The last phase in the evolution of censorship and control of the Tunisian Internet needs to be understood in context. According to Silver (2011, p. 8), the Tunisian government was aware of the danger to its existing filtering system that stemmed from social media. It signed a deal to add monitoring of social networks to its existing monitoring capacity. By 2008, YouTube and Daily Motion were censored in Tunisia. Then, the government censored Vimeo and Flickr, and on 23 August 2008, access to Facebook was denied to 28,000 Tunisian subscribers (Ferjani, 2011, p. 5).

According to Thomas Poell (2014, p. 189), these practices typify censorship in a global online environment as a whole, which is increasingly characterised by surveillance. What is different in the case of an authoritarian state, as Tunisia was under Ben Ali, is that they also use violence and systematically censor communication. In line with Thomas Poell (2014, p. 192), the question is how the political and technical mechanisms noted above take shape in an authoritarian regime. Social media were important in this context because the Tunisian regime controlled national television channels and the major newspapers. Social media made it possible to broker connections between previously disconnected groups and to provide platforms for expressing grievances against the dictatorial regime (Gerbaudo 2012, pp. 58–59; Lim, 2012, p. 244). But, as Thomas Poell has pointed out (2014, p. 193), this is not to say that social media communication was unproblematic. As Paolo Gerbaudo (2012, p. 62) notes, the major obstacle in the mobilisation process can be 'the mutual disrupt among Facebook' and the 'fear of police repression'.

Another important question is the role of the diaspora network. According to Sami Ben Gharbia, a Tunisian activist, the task of the diaspora was

> information escape, the reproduction and structuring of information. This involved a variety of social platforms: Our aim was first to get the information out of Facebook because it's a closed platform. Not everybody has access, or knows how and where to find the information on Facebook. In the next step, we publish it on a blog with a clear structure, pages, archives, where the usability of the information is refined. It can also be re-published on YouTube. Then we tweet the URL to inform, where one can see the information. (Poell, 2014, p. 201)

Such restrictive censorship, however, did not stop activists from using the internet for political purposes. As Lim explains,

> digital activism was lively, as exemplified by Takriz, a Tunisian cyber think-tank established in 1998, and early prominent activist websites such as the Perspectives Tunisiennes established in 2000 and TuneZine in 2001. The year 2004 saw the emergence of political blogs and the birth of Nawaat.org, an independent collective blog serving as a platform for Tunisian dissident voices and debates. The harsh online environment was the main challenge for online activists, making […] many political blogs was censored, prompting a popular saying 'you are not a real blogger if your blog is not censored'. The repressive measures also extended offline with the arrest of bloggers and cyber dissidents. (2013, p. 3)

As Lim explains, *TuneZine* was a website founded in 2001, and it was a target of the political censorship carried out by Ben Ali's government. TuneZine was a satirical website and one of the first open discussion forums on Internet. The founder, Zouhar Yahyaoui, alias Ettounsi, was the first cyber activist to be condemned in Tunisia. He also was the nephew of Mokhtar Yahyaoui, who was one of the critical voices against Ben Ali's government and the lack of respect for judiciary processes. In June 2002, Yahyaoui was sentenced to three years imprisonment. During the trial, none of his lawyers were able to speak on his behalf either during the initial proceedings or at the court of appeal.[5] He was tortured in prison and finally, in 2005, he was released. He died in March 2005 by heart attack at 37.

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[5] Source: http://publications.europa.eu/en/publication-detail/-/publication/1aca8dfe-1040-49cc-9edc-1a27c868627a/language-en [last accessed 18 April 2016]

Extra-legal intimidation and physical violence targeting online journalists and bloggers was a common practice in Tunisia. Table 16 illustrates the documented cases of bloggers who suffered repression by the state in Tunisia before the Arab Spring, according to the international network of bloggers *Global Voices*.[6].

Name	Location	Dates
Abdallah Zouri	Zarzis	Arrested on 1990, 2003, and 2009
Abdelghaffar Guiza	Zarzis	Arrested between 10 Feb 2003-27 Feb 2006
Ayman Mcharek	Zarzis	Arrested between 16 March 2003-27 Feb 2006
Emna Ben Jemaa	Tunis	Arrested and threatened on 21 May 2010
Fatma Rishi	Tunis	Arrested between 2 Nov 2009-7 Nov 2009
Hamza Mahroug	Zarzis	Arrested between 9 Feb 2003-27 Feb 2006
Khedija Arfaoui	Tunis	Arrested on 4 Jul 2009
Mariam Zouaghi	NA	Arrested on 26 Jul 2008
Moez elBey	Tunis	Threatened on 5 Oct 2009
Mohamed Fourati	NA	Threatened on 9 March 2007
Mohamed Abbou	NA	Arrested between 1 Apr 2005-24 Jul 2007
Nesla Charchour Hachicha	Tunis	Threatened on 31 March 2006
Nizar Ben Hassen	Mahdia	Threatened on 24 Aug 2010

[6] Source: http://threatened.globalvoicesonline.org/bloggers/tunisia [last accessed 18 Apr 2016]

Omar Chlendi	Zarzis	Arrested between 8 Feb 2003-27 Feb 2006- Deceased
Ramzi Bettibi	NA	Arrested between 15 March 2005-7 Nov 2007
Ridha Bel Hadj Ibrahim	Zarzis	Arrested between 17 Feb 2003-27 Feb 2006
Slim Amamou	Tunis	Arrested on 21 May 2010
Slim Boukhdir	Sfax	Arrested between 26 Nov 2006-21 Jul 2008
Yassine Ayari	Tunis	Arrested on 21 May 2010
Zied el-Heni	NA	Threatened on 10 Apr 2009
Zouhaier Makhlouf	Nabeul	Arrested between 20 Oct 2009-12 Feb 2010
Zouhair Yahyaoui	Tunis	Arrested between 4 Jun 2000-18 Nov 2003- Deceased

Table 16. Bloggers arrested and threatened in Tunisia (2003–2010). **NA, data not available*

The surveillance carried out by Ben Ali's government effected all citizens, not only bloggers or journalists. According to the United States–based NGO Freedom House,[7] in 2009 in Tunisia the Internet cafés were state-run, and they operated under police surveillance. Moreover, users had to register their names and other personal information before accessing Internet. Tunisian law allowed the government to block or censor internet content that is deemed obscene or threatening to public order, or is defined as 'incitement to hate, violence, terrorism, and all forms of discrimination and bigoted behaviour that violate the

[7] https://freedomhouse.org/report/freedom-press/2010/tunisia [last accessed 18 April 2010).

integrate and dignity of the human person, or are prejudicial to children and adolescents'.[8] For instance, in 2003 in Zarzis, a coastal town in southern Tunisia, eight young men were arrested on charges of terrorism. The only evidence was a group of files downloaded from the Internet. Authorities accused to the eight young men of having formerly been part of a terrorist group. The young men were sentenced to 18 months in prison.

4.2.2 Conclusion

The Arab Spring dawned on 17 December 2010 with the self-immolation of Mohammed Bouazizi, and some academics believed that the role of social media was very important in spreading the resulting protests over the region (Howard & Hussain, 2011; Lotan et al., 2011; Stepanova, 2011; Cassara & Lengel, 2013). Others argue that social media played an incidental role in the revolt (Ehrenberg, 2012; Morozov, 2011; Shirky, 2011), insisting on the term 'people revolution' (York, 2011), not 'Facebook revolution' or 'Twitter revolution', as others say (Zuckerman, 2011).

What is clear is that although the use of social media for mobilising was important, there were some opportunity structures, that is, the exogenous factors of social movements that constitute the preconditions for promoting action that played a key role.

In this chapter, we have noted such opportunity structures. First, the economic reform promoted by Ben Ali was central. The creation of two mechanisms (the FNS and the BTS) helped

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[8] '2008 Human Rights Practices Tunisia', *U.S Department of State,* 25 February 2009, http://www.state.gov/j/drl/rls/hrrpt/2008/nea/119128.htm, [last accessed 18 April 2010).

and contributed to the development of a neoliberal system and widespread corruption across Tunisia. During these years, privatization also was at the heart of the strategy for development.

From 1984 to 2010, youth unemployment increased significantly. This increase can be as understood as a consequence of the financial and administrative corruption of the previous regime, which had acted as an obstacle to encouraging investment in the economy, which might have helped to absorb the number of unemployed people. As Mehdi Marbouk, according to a United Nations Development Program report, has pointed out, this situation was an important factor in the growth of a 'culture of suicide which disdained the value of life, finding death an easier alternative because the lack of values and a sense of anomie' (2011, p. 629). This, it suggested, was particularly true of unemployed and marginal youth, so that death was more attractive than life under such conditions, as a statement about the plight of the individual in such circumstances (ibidem).

Using national structures and mechanisms such as the ATI, online censorship common practice under the government of Ben Ali. The state not only filtered personal communications, but also used violence and systematically censored communication. The previously uncontrolled freedom of expression gave way to the creation of an extensive censorship and filtering system.

According to these structure opportunities, the 2010–2011 Tunisian revolt has at least two historical origins, namely the enduring struggles of working class and labour activists and the long-established online activism. According to Lim (2013, p. 3), on the ground, offline protests generally involved blue-collar

workers and labour and trade unions, and revolved around unemployment and poverty issues. Meanwhile, digital activism was predominantly urban centred and focussed on immaterial issues such as freedom of expression (censorship), democracy, and human rights.

CHAPTER 5

Results

5.1 Digital Activism in Tunisia before the Arab Spring

Introduction

In complex societies, social movements develop only in limited areas and for limited period of times. The hidden networks become visible whenever collective actors confront or come into conflict with a public policy, and this feature of social movements Melucci calls the hidden efficacy of social movements (1989, p. 70–73). The identification of this type of action requires an analysis that recognises the multiple factors (opportunities, limits, response) and does not simply assume that the movement is a given entity. As we have noted already, the latency and visibility phases are the two interrelated poles of collective action. In that sense, latency does not mean inactivity; rather, the potential for resistance or opposition is sewn into the everyday life (Melucci, 1985, p. 71). This chapter presents findings related to the latent phase of digital activism in pre-revolutionary Tunisia. The analysis has been carried out in two stages. In Stage 1 we map the network of the digital activism in pre-revolutionary Tunisia. Activism in Tunisia has been at work for many years, first offline and then online.

Because our study focusses on the Arab Spring in Tunisia, however, this chapter analyses the digital activism in Tunisia during the year 2010. We have identified it, according to Melucci's proposal, as the latency phase of the movement. The second stage focusses on the qualitative analysis of content analysis and interviews. In section 5.1.1 we present findings related to the quantitative approach, that is, the social network analysis of the Tunisian digital activism before the 2010–2011 uprising. Section 5.1.2 then presents results related to the qualitative methods: the qualitative content analysis and semi-structured interviews.

5.1.1 The Tunisian digital activist network before the Arab Spring

The structure of digital network in Tunisia before the Arab Spring provides some clues as to the way that digital activists organised themselves on Twitter. One way of conceptualising networks mathematically is as graph (Borgatti et al., 2013, p. 11). In addition, graph theory gives us a representation of a social network as a model, an elemental way to represent actors and relations. In a graph, nodes are represented as points in a two-dimensional space and arcs are represented by directed arrows between these points (Wasserman and Faust, 1994, p. 73). The data collection contains much data. In order to gain a clearer picture of the activist network of digital activism in Tunisia before the Arab Spring, we thus mapped the network in two stages (Edwards & Crossley, 2009, p. 44). In a first stage (see Figure 13), we mapped the whole network, and in a second stage (see Figure 14), we focussed on the core of the network, according to the in-degree centrality measure. The sizes of the nodes depend on their in-degree value.

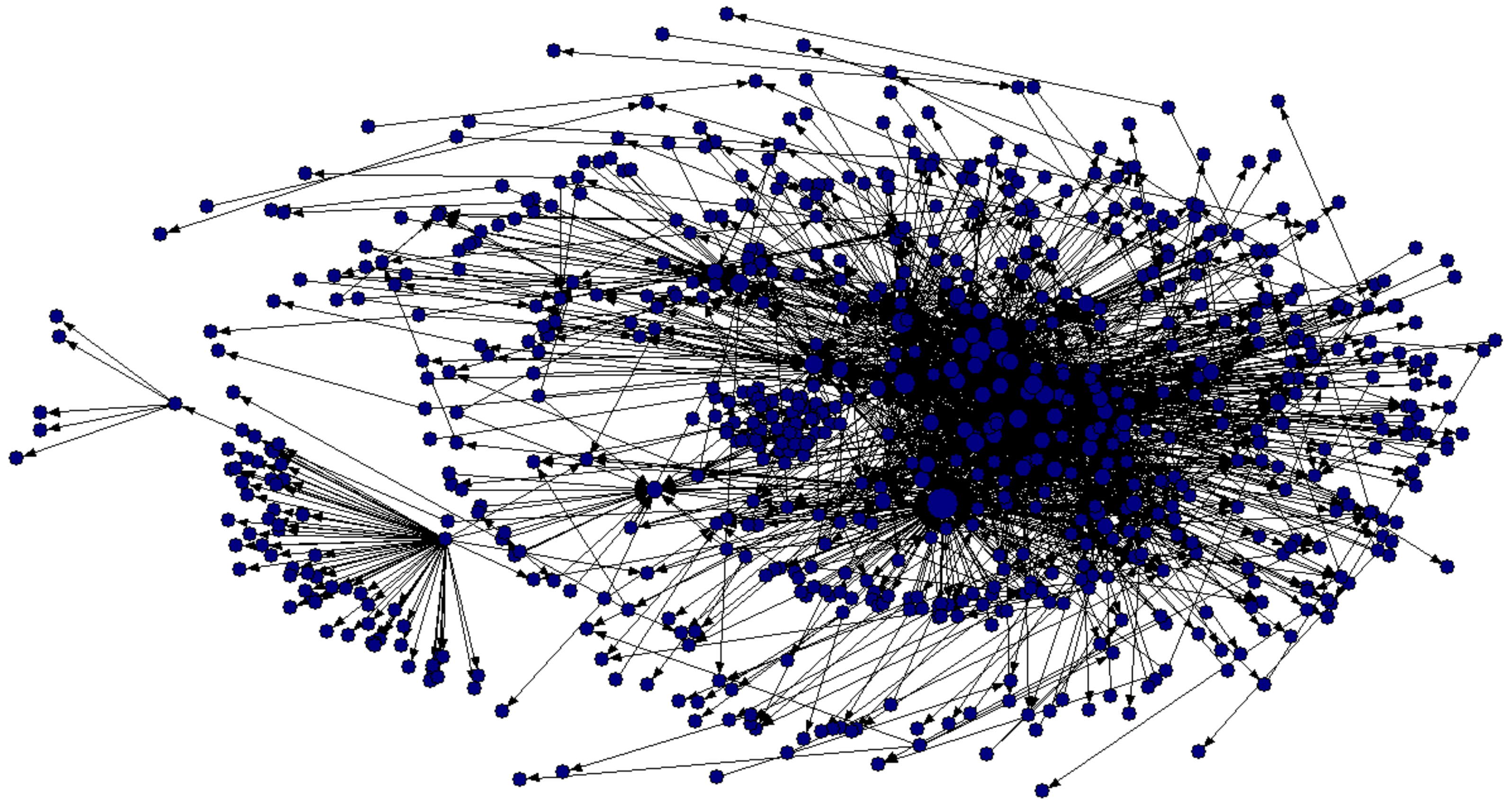

Figure 13. The Tunisian digital activism network before the Arab Spring

Figure 14. The core of the Tunisian digital activism network before the Arab Spring

5.1.2 Network analysis

As we have noted in section 4, we will analyse the properties of the network at two levels of abstraction: network-level analysis, which provides us information about the properties of the whole network, and element-level analysis, which provides us with information at the node level.

Network-level analysis

The variables that we have measured the network level are the type of network (directed or undirected), the number of nodes, the total edges present in the network, the reciprocity between the edges, the density of the network and, finally, its transitivity. Table 17 shows the results of the network-level analysis of the Tunisian digital network before the Arab Spring:

Type of network	Directed
Total nodes	741
Density (average)[1]	2186
Total edges	0.007
Reciprocity edges	348
Non-reciprocity edges	1858
Transitivity	0.145

Table 17. Network-level analysis (Tunisia, before Arab Spring)

From the data in Table 17, we get the following results. The network is directed, so it means that the edges are like arrows, and they have directions. As it shows, the size of the

1 Standard deviation: 0.169.

network is 741 nodes with 2,186 edges that link these nodes. It is important to note that relations among nodes in directed networks can be reciprocated or not. In that sense, reciprocity measures the likelihood that nodes in a directed network can be mutually linked; that is, reciprocity evaluates the tendency of vertex pairs to form mutual connections between each other. This parameter captures a basic way in which different forms of interaction take place on a social network (Yin & Zhu, 2015, pp. 6596–6597). A simple measure of reciprocity is to count the number of reciprocated ties and divide this number by the total number of ties (Borgatti et al., 2013, p. 155). If the reciprocity index equals 0, then there is no tendency to reciprocate; if it is equals 1, the tendency is maximal, thus all choices are reciprocated. The number of reciprocity edges in the network is 348, which is 0.16% of the total (2,186). It indicates a low level of reciprocity. This significant number of unreciprocated interactions means that there are a significant number of relationships that are unbalanced. Lower values of reciprocity characterises networks centred on leaders, and it is related to an asymmetric distribution of power. This type of network tends to be hierarchical.

As already noted in Chapter 3, Section 3.5.1, the density of a network proportional to the possible ties that are present. Thus, in interpreting these findings, we need to consider the size of the network. According to Stephen Borgatti, Martin Everett and Jeffrey Johnson (2013, p. 151), the advantage of density over the simple number of ties is that it adjusts for the number of nodes in the network. Generally, if the network is small, the density will be high. In contrast, the larger the network, the lower the density. For instance, in a network of 10 nodes, it is quite possible for a node to have ties with all nine other actors, but in a large network it seems unlikely

that the number of ties actors have to others will keep pace with the number of others available (ibidem). Our findings, based on a large network of 741 nodes, supports that view: few nodes exhibit extremely high connectivity, while the vast majority are relative poorly connected, so the density of the network is low (0.007).

The idea of transitivity suggests that any two nodes are more likely to enjoy a tie if each is tied to a common third party (Crossley et al., 2015, p. 15). The idea of transitivity regards the importance of structural information contained in triads (Faust, 2006, p. 208). According to Mark Granovetter (1973), strong ties between nodes are often less useful that weak ties. The reason for this strength is that when two nodes which have strong ties tend to be tied to one another, so they have a high transitivity parameter and, therefore, they have access to exactly the same information. Weak ties, by contrast, are source of novel information, and tend to move in different circles, which mean that they have access different pools of information, which may prove useful (Crossley et al., 2015, p. 35). As Table 16 shows, the value of transitivity is 0.145. Following to Mark Granovetter (1973), the absence of a high value of transitivity can be explained using the concept of 'bridge'. In general each person has a great many contacts, so a bridge between A and B provides the only route along which information or influence can flow from any contact of A to any contact to B and, consequently, from anyone connected indirectly to A to anyone connected indirectly to B. Bridging ties are a potential source of novel ideas, since bridge ties are weak, and weak ties the best potential sources of novel information (Borgatti & Halgin, 2011, p. 1171). Thus, bridges assume an important role in the diffusion of information. As a result, communities that present many bridges, resulting in

low transitivity scores, show a weak local cohesion among nodes, but strong global cohesion (Granovetter, 1973; Borgatti & Halgin, 2011, p. 1171). In our case study, weak ties constitutes a network-level with low local cohesion but strong global cohesion that allows the total network to work together to achieve goals, for example, mobilising resources and organising actions as a response to an outside threats, facilitating the diffusion of information, as we will see later in this chapter.

Element-level analysis

This section presents the results related to the element-level analysis. In that sense, four commonly used centrality measures are considered in the network analysis: degree, betweenness, closeness (as local measures), and eigenvector (as global measures) (Everett & Borgatti, 2005, p. 57). Degree centrality refers to the greater access to network flows; betweenness centrality is a measure of the control that a node exerts over network flow, assuming that information always takes the shortest possible path. Eigenvector centrality measures the importance of a node in a network, and, finally, closeness centrality refers

As we have noted in Chapter 3, Section 3.5.1, degree, betweenness, eigenvector and closeness centralities are all measures of an actor's prominence in a network (Wasserman and Faust, 1994). Table 18 shows the first 50 nodes, ordering by degree centrality:

Node	Degree	Betw.	Eigen.	Clos.
@Slim404	503	5.703	72.577	0.159
@Nawaat	176	1.234	40.322	0.156
@malekk	122	2.327	59.558	0.156
@Souihli	116	2.525	45.37	0.153
@ByLasKo	113	2.972	32.592	0.156
@Ifikra	96	2.686	28.557	0.156
@t_kahlaoui	81	1.086	36.151	0.152
@Stupeur	79	0.19	10.771	0.152
@Selim_	72	1.577	25.506	0.153
@Houeida	63	0.7	11.342	0.155
@epelboin	55	0	3.714	0.156
@Zinga_2	55	0	6.687	0.154
@matadorrr	42	0	5.719	0.151
@Astrubaal	38	0.12	11.116	0.151
@Fatounar2	31	0	5.67	0.149
@lemondefr	31	0	1.13	0.156
@Messymisss	31	0.51	13.146	0.151
@Hamdanih	30	0.798	11.47	0.15
@Nayzek	29	0	4.105	0.152
@majed_zoghbi	26	0.2	6.525	0.152
@blech_klem	25	0.307	14.572	0.15
@benmhennilina	24	0.494	6.456	0.153
@Karim2k	23	0.312	9.763	0.149
@TunObs	23	0.073	9.664	0.15
@Aymekki	22	0.818	9.141	0.149
@delle3a	22	0	5.785	0.151

@Naddo_o	21	0.142	8.318	0.151
@zizirider1969	21	0	1.204	0.15
@Korben	20	0	2.283	0.154
@Malek404	20	0.014	3.658	0.151
@Riadheh	20	0.361	5.531	0.15
@Emnabenjemaa	19	0.035	4.263	0.152
@Saieddardour	19	0	5.291	0.15
@Tunivisions	19	0	2.233	0.152
@JudeVlad	18	0.54	7.767	0.151
@Sarah81m	18	0.765	6.705	0.152
@Daghbaji	17	0.073	2.669	0.15
@escalier7	17	0.276	5.846	0.152
@Hama90	17	0.357	8.896	0.149
@Houssein	17	0.022	3.365	0.152
@Samitunis	17	0.254	8.191	0.149
@Sayebsala7	17	0.481	11.112	0.149
@Ouss_	16	0.084	2.693	0.149
@Barbach	15	0.068	4.216	0.148
@Sarhantn	15	0.11	5.471	0.144
@Syflux	15	0	3.012	0.154
@Arabasta1	14	0.082	8.306	0.15
@Benjebara	14	0.191	0.97	0.145
@Fish_eat_fish	14	0.199	10.179	0.15
@moalla	14	0.439	9.156	0.15

Table 18. Nodes with higher centrality values before the Arab Spring

With these nodes, in this section we list the 20th nodes, with information about the person or institution that is behind the Twitter user and some biographical notes, if important to our object of study. There are some cases in which we do not have information about the node, and in these cases appears the acronym NA (Not Available).

User	Biographical notes
@Slim404	Slim Amamou / Tunisian. Blogger and anti-censorship activist, he played an important role before the revolution, organizing protests and initiatives against the censorship in Tunisia. After the revolution, he took part in the Transitional Government and he became Secretary of State for Sport and Youth. He resigned from the role on May 25, 2011 in protest of the censorship of several websites carried out by the Transitional Governement. He was arrested on 21 May, 2010, and, then, on Jan. 6, 2011, during the uprising. Blog: https://nomemoryspace.wordpress.com
@Nawaat	Nawaat/Tunisian. Nawaat, which means core in Arabic, in an independent collective blog co-founded in 2004 by Sami Ben Gharbia, Sufian Guerali and Riadh Guerfali. On Nov. 28, 2010, Nawaat launched the Tunileaks, the Wikileaks cables about Tunisia. The Electronic Frontier Foundation awarded Nawaat's co- founders with their 2011 Pioneer Award. Website: http://nawaat.org/portail
@malekk	Malekk Khadhraoui / Tunisian Journalist. Je joined Nawaat in 2006.
@Souihli	Wael Souihli / Tunisian Blogger
@ByLasKo	Haythem el-Mekki / Tunisian Journalist

@Ifikra	Sami Ben Gharbia / Tunisian. Blogger, human rights campaigner. He was a political refugee living in Netherlands between 1998 and 2011. He is the founding director of the Advocacy arm of Global Voices Online and co-founder of Nawaat. In 2011 *Foreign Policy Journal* named Sami Ben Gharbia as a major world influencer in promoting government transparency. Blog: https://ifikra.wordpress.com
@t_kahlaoui	Tarek Kahlaoui / Tunisian. PhD in Islamic art. Former director of the Tunisia Strategic Studies. Assistant Professor of Islamic History and Art at Rutgers University.
@Stupeur	Journalist and redactor for media websites. Blog: http://blog.kochlef.com
@Selim_	Selim Kharrat / Tunisian. Management – Consultant. He was living in Paris since 2004 and after the revolution he came back to Tunisia. According with his public profile at UNESCO website (http://en.unesco.org/youth-and- internet-fighting-radicalization-and-extremism/selim-kharrat), Selim has worked as a manager consultant for a number of NGO's, associations and organisations in the field of international solidarity and human rights. After the revolution, he co-founded Al-Bawsala, a parliamentary monitoring organisation.
@Houeida	Houeida Anouar / Tunisian Journalist. Editor-in-chief of Huffington Post Maghreb.
@epelboin	Fabrice Epelboin / French. Teacher and Social Media specialist. Entrepeneur.
@Zinga_2	NA

@matadorrr	NA
@Astrubaal	Riadh Guerfali / Tunisian. Lawyer and human right activist. Co-founder of Nawaat. In 2004 he published a mash-up video of an Apple ad, replacing the role of the big Brother with Tunisian President Ben Ali. This video goes viral and Guerfali's video was part of a broader campaign that he and a group of Tunisian activist launched in 2002 (McKinnon, 2012). In 2011 he won a Netcitizen prize for promoting freedom of expression, sponsored by *Google* and *Reporters Without Frontiers*.
@lemondefr	Le Monde / French. Media Outlet.
@MessyMisss	Inés / Tunisian.
@Hamdanih	Houssem Hamdani / Tunisian. IT.
@Nayzek	Houssem Aoudi / Tunisian. Founder of *TEDxCarthague*. co-founder and CEO of *Tunisia's first Coworking Space Cogite*, Director of the 2014 *Elections Media Center Instance Supérieure Indépendante pour les Élections*.

Table 19. Profiles of the most central nodes before the Arab Spring

In examining the network, we computed the centralities of its nodes using the software UCINET, developing by Freeman, Everett and Borgatti. Then, we search for correlations between pairs of centralities, using the Pearson correlation coefficient. Following José Ricardo Furlan and Gonzalo Travieso (2015, p. 3), we call the result of this analysis the centrality correlation profile of the network, consisting of the values of the correlation coefficient for all pairs of centralities studied, and use it to characterise the network. Table 20

shows the values of the Pearson coefficients for all pairs of the centralities in the network studied. We can see that the centralities have, in general, high values for the Pearson coefficient. The four centralities are positively correlated, although the correlations between measures were also quite varied. This positive correlation means that nodes that are important with respect to one definition are, in general, also important according to other definitions (Furlan & Travieso, 2015, p. 3). This highest correlation is between eigenvector centrality and betweenness centrality (r=0.91). The next highest correlation is between degree centrality and betweenness centrality (r=0.89), followed by degree and eigenvector (r=0.87). Closeness is the less correlated measure, while degree centrality has less impact on closeness centrality, and in particular, closeness and betweenness have the lowest correlation coefficient (r=0.19).

	Degree	Betw.	Eigen.	Clos.
Degree	*	0.8982871	0.8680821	0.2271502
Betw.	0.8982871	*	0.9060954	0.1983470
Eigen.	0.8680821	0.9060954	*	0.2853790
Clos.	0.2271502	0.1983470	0.2853790	*

Table 20. Centrality correlation profile before Arab Spring

Figure 15 shows the scatter plot of the centrality correlation profile. And, finally in this section, Figure 16 and 17 illustrate the histogram and the distribution of these centrality measures.

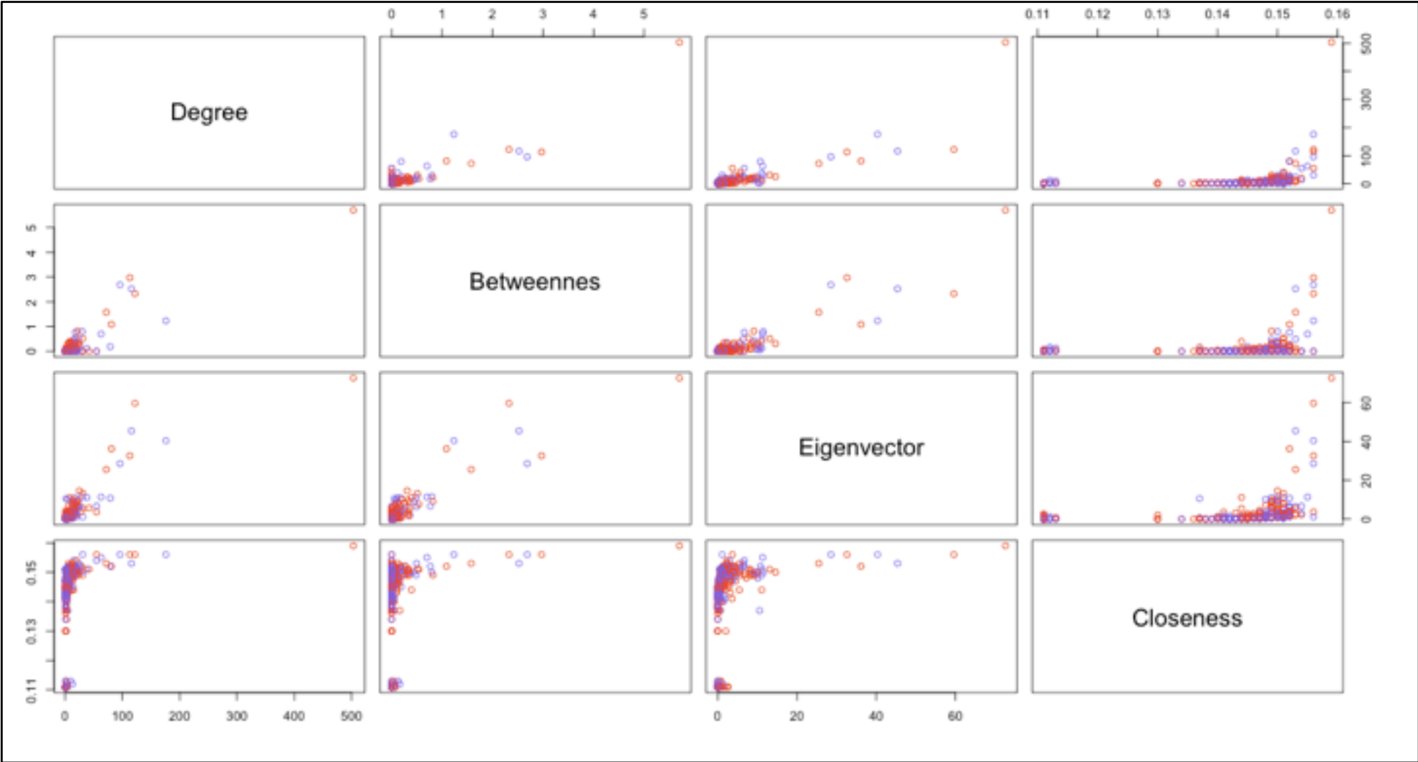

Figure 15. Centrality profile correlation before the Arab Spring

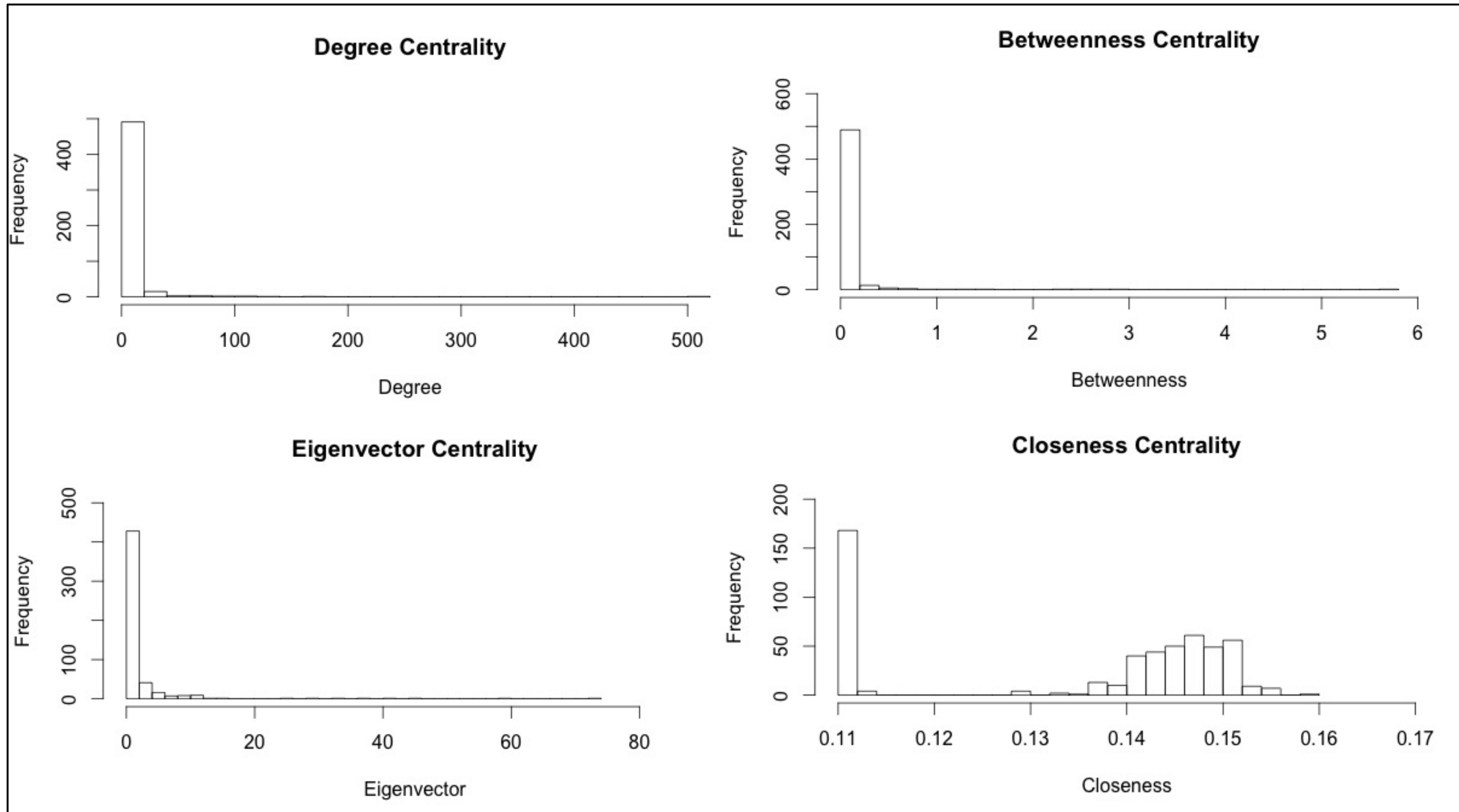

Figure 16. Centrality measures before the Arab Spring

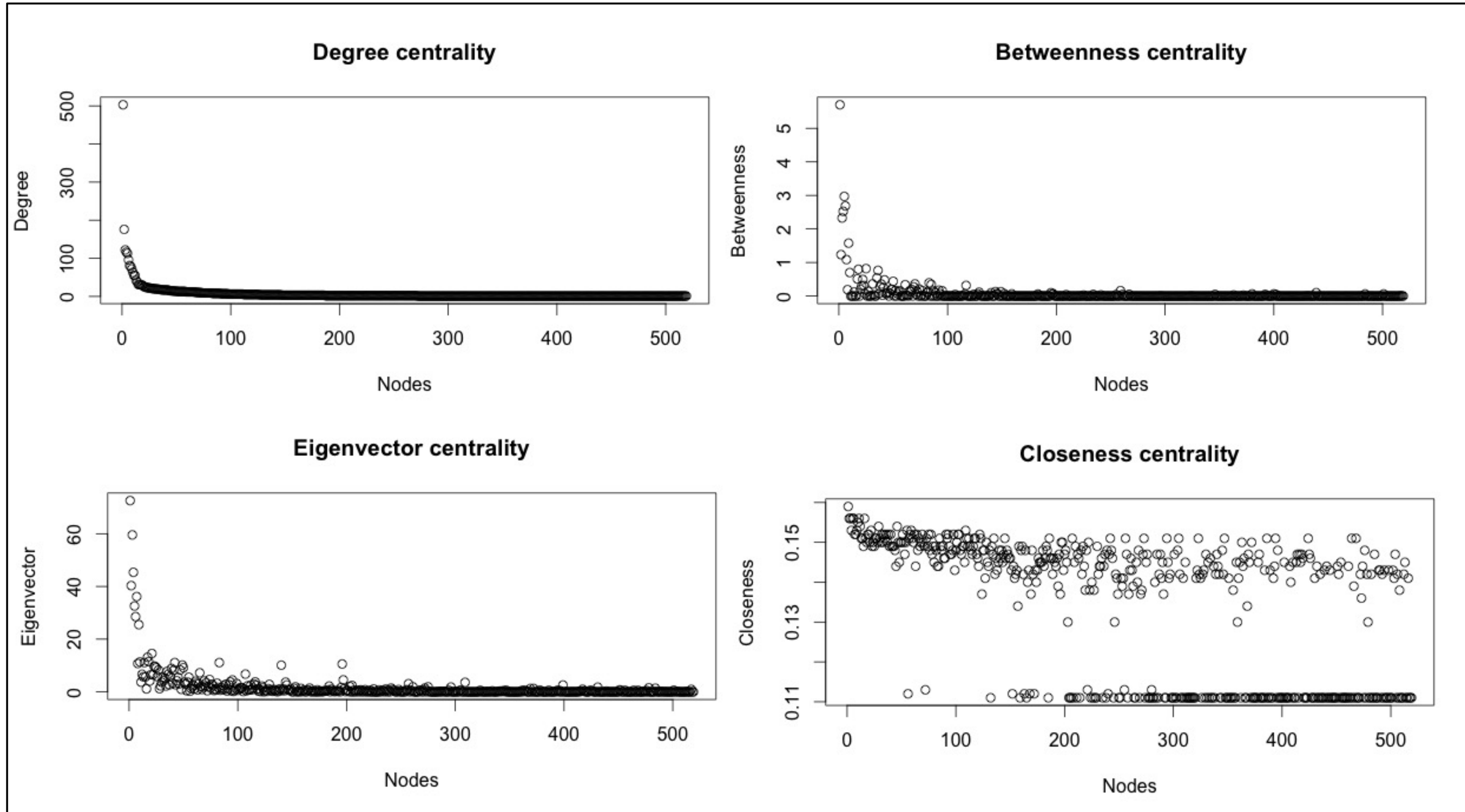

Figure 17. Centrality distributions before the Arab Spring

The distribution for a closeness centrality resembles a normal curve, while the distribution of the other centrality measures is a decreasing function, resembling a power-law distribution. This resemblance means that there are a few nodes that manage much information, and many nodes that manage less information. Few very central nodes dominate the network. If these nodes are removed or damaged, the network quickly fragments into unconnected sub-networks. Hubs are those actors adjacent to many peripheral actors (Wasserman and Faust, 1994, p. 209). The hubs act as a soft leaders- (Gerbaudo, 2012, 2013): through the messages, the suggestions and instructions they disseminate, they shape the way in which movements assemble in public space. Nodes with high degree and betweenness centrality are called hubs. The power law has been interpreting by Erzsébet Ravasz and Albert-László Barabási (2003) as the evidence for presence of hierarchical architecture in the network. According to the authors, the presence of a hierarchical architecture reinterprets the role of the hubs in complex networks. Hubs, the highly connected nodes at the tail of the power-law distribution, are known to play a key role in keeping complex networks together and to dispersing information. The hubs play the role of bridging the many small communities of clusters into an integrated network.

5.1.3 The latency phase of the movement: The anticensorship movement in Tunisia and Tunileaks cables

In this section, we present the qualitative findings related to the anticensorship movements developed in Tunisia before the 2010–2011 uprising. We present the results of the qualitative content analysis and the findings that we have obtained from our semi-structure interviews with Tunisian activists who took

part in this pre-revolutionary movement.

This section divides into three parts: #free404, concerning to the anticensorship campaign launches in early 2010 by Tunisian activists; #manif22mai, related to the organisation of a demonstration against censorship in Tunisia on May 22, 2010; and #tunileaks, which refers to the Wikileaks cables about Tunisia published by the Tunisian collective blog Nawaat on 28 November 2010.

Anti-censorship movement in pre-revolutionary Tunisia.

In April 2010, following a massive wave of online censorship, the anti-censorship movement began a virtual protest, especially on social media sites like Twitter, Facebook, blogs, and even popular multimedia-sharing websites, such as YouTube or Flickr (Ferjani, 2011: 18).

As Interviewee 2 notes,

> One of the major tasks that became more and more difficult for Tunisian government was to manage the new sites of social interactions in social media sites like Facebook, blogging communities, especially. When some civil voices became too loud, they would be noticed by federal censorship and monitoring agencies. Then these individual bloggers and online voices would be censored by offline pressure through arrests and intimidation or through online measures by turning off their websites, censoring their activities through algorithmic measures, or blocking of IP addresses. It was really 2010 and onwards that we saw a very explicit coordination of discussing the political utility and the risks of web-based strategies and tools (Interviewee 2).

Online censorship was personified in an imaginary person, known as Ammar404, referring to the 404 not found error that appeared when a website was censored. Initially, Ammar404 was formed by a small group of bloggers who broke with the tradition of anonymity by posting their pictures on social media, like Facebook or Twitter. The goal of the hashtag #free404 was to provide to the users the opportunity to denounce blocking and censoring of websites, as we can see in the following tweets:

> [@escalier7 30 Apr 2010] *http://ammar404.tumblr.com/ est censuré #free404 #ammar404 #censure*
> [@RadMejri 30 Apr 2010] *censure du blog Kissa OnLine http://kissa-online.blogspot.com/ #free404*
> [@Souihli 30 Apr 2010] *RT:@Selim_ RT:@barbach censure du blog Pour Gafsa (6eme edition)*
> *http://pourgafsa5.blogspot.com/ #free404*
> [@kristyman 30 Apr 2010] *meme la pgae qui parle de censure en #Tunisie sur #wikipedia a ete censure:*
> *http://bit.ly/dspVaA #free404*
> [@Selim_ 30 Apr 2010] *RT:@barbach mon blog tkharbich http://bit.ly/9YcwNn est censuré aujourd'hui #free404*
> [@RamyRaoof 20 May 2010] *Why #skype is not working properly in #Tunisia, since may 3rd, 2010 is skype the next target of TN censorship machine #free404 #manif22mai*
> [@ByLasKo 11 May 2010] *http://twitter.com/samiTunis est censuré en Tunisie, j'attends mon tour via @Souihli #Free404 #sayebsala7*

These anti-censorship efforts were involved in a wide range of initiatives. For example, activists developed a list of censored blogs, and, in this way, they had the control of the websites that were censored. Figure 18 shows a document in which the

activist monitored the websites censored in Tunisia:

Blogs censurés en Tunisie

	A	B	C	D	E
1	Timestamp	https://3ayechmelmarsa.blogspot.com/	Sayech mel marsa	Date	P.S Le blog est inactif depuis un an
2		best-007.blogspot.com			
3		http://ahbebattariq.blogspot.com/	Les Amis d'Attariq	le 23 avril 2010	Le blog a été censuré 5 fois en l'espace d'un mois
4		http://fatmaarabicca.blogspot.com/	arabicca	fevrier 2010	
5		http://20ansapreschangementdu7november.blogspot.com		avril 2010	
6		http://ignescence.blogspot.com	Le poète de l'enfer	9 mai 2010	
7		http://anarchie-hamzovsky.blogspot.com/		8 mai 2010	
8		http://graffitis-bacchus.blogspot.com/		8 mai 2010	
9		http://massir.blogs.psychologies.com/	Massir	8 mai 2010	
10		http://sofienechourabi.blogspot.com/	Sofiene CHOURABI	8 Fois	
11		http://freethoughts-antiguerre.blogspot.com/		6 mai 2010	
12		http://princesse-des-lieux.blogspot.com/		6 mai 2010	
13		http://sayebsala7.over-blog.com/		6 mai 2010	18h00 après sa création
14		http://telestlemonde.blogspot.com/	Un Oeil sur la Planète	6 mai 2010	
15		http://rachedarfaoui.over-blog.com/		5 mai 2010	
16		http://tareknightlife.blogspot.com/	Nocturnal Thoughts [illegible]	5 Fevrier 2010	
17		http://marsed.maktoobblog.com/		4 mai 2010	
18		http://NoMemorySpace.wordpress.com	Slim Amamou blog	30 mai 2010	
19		http://ammar404.tumblr.com/	404 NOT FOUND!	30 avril 2010	
20		http://manichaeus.blogspot.com	Un homme dans la foulée	30 Avril 2010	
21		http://tun-obs.posterous.com/	Tunisian Observer	30 avril 2010	
22	8/30/2010 1:20:49	http://artarticuler.blogspot.com/	ARTiculer	29/08/2010	
23		http://ahbebattariq.blogspot.com/	Les Amis d'Attariq	29 mai 2010	5ème adresse censurée du blog des Amis d'Attariq
24		http://boudourou.blogspot.com/	[illegible]	29 avril 2010	
25		http://brisetunisienne.blogspot.com/	Brise Tunisienne	29 avril 2010	
26		http://carpediem-selim.blogspot.com	Carpe Diem	29 avril 2010	
27		http://metallicnaddou.blogspot.com/	Nadia from Tunis	29 avril 2010	

Figure 18. Document with censored blog in Tunisia before the Arab Spring

Another important initiative was the website http://ammar404.tumblr.com, which was used to develop both offline and online protest. This protest was called *Sayyeb Sal7* (leave me with peace!) and basically consisted of taking photos with messages against censorship and, after this, uploading these photos to the website. What is remarkable is the fact that activists abandoned the practice of adopting a pseudonym, and they appeared with their real identity. Figure 19 shows some of the photos of the protest.

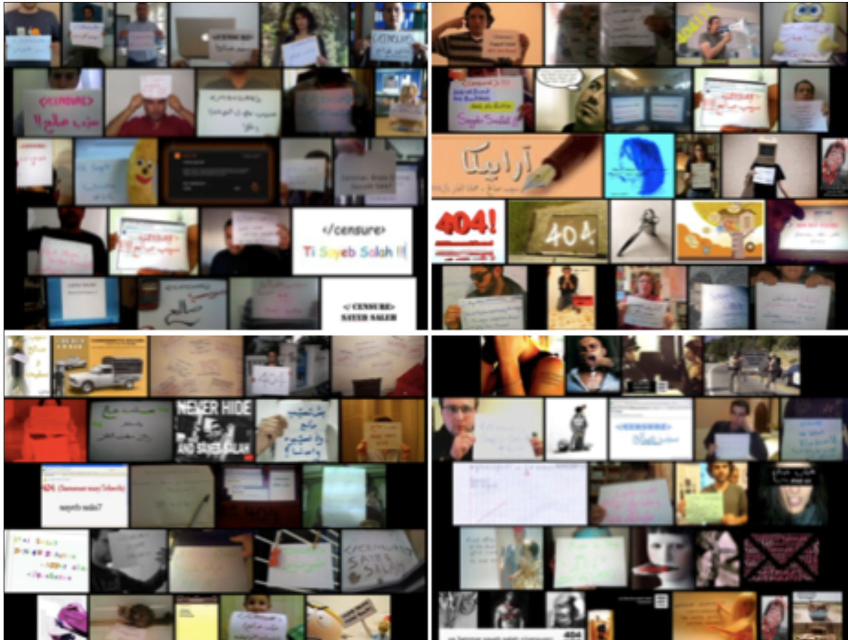

Figure 19. Sayyeb Sal7 protests

As we have noted, social media such as Twitter provides an infrastructure which determines the patterns of communication, and understanding these patterns is basic for understanding the logic of connective action in the new wave of protests and social movements. On these platforms, collective identity is constructed. To build this collective identity, it is necessary, at least, to identify of the other and the construction of the *we*. In the case of pre-revolutionary Tunisia, the construction of the other is personalised in the figure of Ammar404, opposite to the *we*, the activists who fight against censorship in Tunisia. Moreover, as the use of Twitter and social media platforms shows, persistent ways of coordination between activists are necessary for achieving their goals.

The (non)demonstration of 22 May 2010 in Tunisia

Due to the wave of censorship that took place in Tunisia in early 2010, activists decided to organise a demonstration against that censorship and for the defense of freedom of expression in Tunisia. Interviewee 1 explains that

> We decided to organise this demonstration in April 2010 and we chose the date May 22. Well, we decided we are going to organise the demonstration simultaneously in Tunis, the capital of Tunisia, and then in Canada, Montréal, Paris, and New York […] We [tunisian activists] were because all the time censorship started to target even blogs of photography and other as Daily Motion. People couldn't see, for example, football matches anymore on YouTube or music or whatever. We tried to attract people to support us. (Interviewee 1)

As Interviewee 3 explains, the initiative for the demonstration came from Amira Yahyaoui. Amira is a Tunisian human rights activist who was exiled in France, but she kept in touch with activists in Tunisia. Her father, Mukhtar Yahyaoui, was a judge. In 2001, when Mukhtar was the President of the First Instance Court in Tunisia, he sent a letter to Ben Ali denouncing for first time the Tunisian judiciary's lack of independence. He was dismissed and forced into exile in France. Moreover, Zouhair Yahyaoui, Amira's cousin, founded the satirical website *TUNeZINE*[2] and was the first cyber-dissident to be pursued and condemned in Tunisia. He was arrested for the first time in 2002, and he was tortured in prison. After leaving prison, he died at 37 of a heart attack on 13 March 2005. According to Interviewee 3,

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[2] See Chapter 4, Section 4.2 for a more detailed explanation.

> [the demonstration] started with Amira Yayhaoui. Amira Yayhaoui is a human rights activist and she was in France. She couldn't come to Tunisia. […] She decided to do a demonstration in France against censorship. I contacted her, I was in Tunisia told her that it's not that to do it in France, we should do it in Tunisia […] I asked how to do demonstration in Tunisia because no one knows how to do a demonstration. [She] told me you have to go to the law of January 69 and you find all the rules how to do demonstration. To do a demonstration you need 2 people, 2 or more until 40 people to sign [the declaration]. I wrote the main things to write in this declaration and I put on my Facebook, 'Who wants to sign the declaration for demonstration?' One guy, Yassine Ayari, he's an activist, global activist contacted me and he said, 'If you do it I'll do it.' He did not know me. He just saw that I'm activist, I'm on the internet, on Facebook mainly […] I put him in contact with Amira Yayahoui (Interviewee 3).

However, following Interviewee 3, during the organisation of the demonstration there was a problem concerning the declaration. The aim of the demonstration was against the censorship and for the freedom of speech, so if the signers belonged a political party, it could be a problem:

> She said I will sign it […] I spoke with Amira I said, 'No, we don't need political people. We want people like apolitical, people like to say it's peaceful thing, not think about politics. We just want freedom of expression and that's it.' After this we contacted […], he's one of the main and the best blogger and activist that you can think like he's very brave guy. He was in a party. He said, 'Yes. I want to sign it, to sign the

> declaration.' Amira said, 'No, you are in party.' […] Finally Yassine Ayari, the guy who contacted me and Slim Amamou another guy, they signed the declaration and continued working. That's it. (Interviewee 3)

Yassine Ayari is a Tunisian computer engineer and activist, and Slim Amamou is a blogger and anti-censorship activist. Slim played an important role before the revolution, organising protests and initiatives against the censorship in Tunisia. After the revolution, he took part in the Transitional Government and he became Secretary of State for Sport and Youth. He resigned from the role on 25 May 2011 in protest of the censorship of several websites carried out by the Transitional Government. He had been arrested on 21 May 2010, and then on January 6, 2011, during the uprising. Figure 20 shows screenshots of a video titled 'How to organise a demonstration in Tunisia', released on Vimeo in May 2010. Among four different videos, Slim Amamou and Yassine Yassayari, the two guys who, according to Interviewee 3, signed the declaration, explain the process.

Figure 20. Screenshot of 'How to organize a demonstration in Tunisia' video

Slim Amamou and Yassine Ayari were arrested on 21 May 2010, the day before to the demonstration, and they were detained for more than 12 hours. Finally, Slim and Yassine were forced to make an announcement in order to call off the rally and urge to protestors to stay at home:

Figure 21. Screenshots of Yassine and Slim announcement video

Although the demonstration was forbidden, activists decided to raise a flashmob in the cafés of Tunisia's main avenue, Habib Bourguiba. The requirement for the participants in the flash-mob was to wear a white t-shirt:

> [@malekk 18 May 2010] *Action T-shirt Blanc ! le 22 mai à 15h Nhar 3la 3ammar... http://tinyurl.com/2up5wax #manif22mai*
> [@nhar33 19 May 2010] *Pour soutenir la #manif22mai tu peux: participer a la manif de Tunis, manifester devant nos consulats, mettre un T-shirt blanc, en parler…*
> [@SayebSala7 19 May 2010] *RT:@ByLasKo Action T-shirt Blanc ! le 22 mai à 15h Nhar 3la 3ammar.. http://tinyurl.com/2up5wax #manif22mai via @malekk*
> [@cdutheil 6 Aug 2010]*#Tunisie : Des internautes en T-shirts blancs interdits de flash mob contre la censure #free404 http://bit.ly/9F5Ixw (via @ifikra)*

Here, we show an exchange of emails[3] between Amira and Slim in order to organised the non-demonstration with the white t-shirts:

> De: Amira <…@gmail.com> Date : Tue, 18 May 2010 14:49:03 +0200 Date/heure locale : Mar 18 mai 2010 13:49 Objet : t-shirts blancs
> Bon vu les prix des t-shirts etc on ne pourra pas en faire 500, il serait quand même bien qu'il y ait un point commun
> Que pensez vous de demander à tout le monde de venir avec un t-shirt blanc? en tout cas de porter un t-shirt blanc le jour de la manif.
> Ceux qui n'ont pas d'argent (ou qui préférent les mettre dans autre chose) pourront écrire avec un marqueur le message qu'ils veulent sur leurs fringues.
>
> De : Slim Amamou <…@alixsys.com>
> Date : Tue, 18 May 2010 15:29:43 +0100 Date/heure locale : Mar 18 mai 2010 15:29 Objet : RE : t-shirts blancs
> Excellente idee. Verifie que l'evenement n'existe pas deja sur fb. On me dit qu'il y a qlq sur le coup deja ;)

In these emails we can note how activists were worried about the security and the police intervention the day of the demonstration:

> De : 'Info' <i@tuniscarthage.com>
> Date : Wed, 19 May 2010 20:39:46 -0400 Date/heure locale : Jeu 20 mai 2010 01:39 Objet : Re: RE : Re: RE : t-shirts

[3] These exchanges of emails belong to a document called "maniff 22 mai: MAKING OF". We found it available on Twitter in 2012, when we started with our content analysis.

> blancs
> Pas de questions ici.
> Je sais que c'est tradition maintenant d'assumer que toute manifestation sera confrontée par la police.
> Je pense que cette fois, il n'y aura pas d'affrontement.
> Pour ma part et la part de beaucoup je pense, que la manifestation ne soit pas interdite et que cette manifestation précisément se passe dans la plus grande sérénité et esprit joyaux, sont deux éléments nécessaires pour la conservation des liens d'unité nationale et un testament d'un futur certain en unité pour la Tunisie. Tous ensembles vers le futur brillant.
> Pour ma part, si par contre, cette manifestation est interdite ou violement réprimée, elle sera un testament criant d'une chose que je n'ose même pas discuter et j'en tirerais de leçons et des conclusions sur ce qui est l'unité nationale qui ne seront pas nécessairement inclusive de tous mais de du peuple tunisien et a l'exclusion de ceux qui seront responsables de l'interdiction de cette manifestation, de sa répression violente, ou de sa réussite dans la sérénité et la joie et l'espoir du future uni sans rancunes ni haine.

Finally, in spite of the fact that demonstration was forbidden, Tunisian activists took the main street in Tunis, Habib Bourguiba Avenue, and wore their white t-shirts in order to protest against the censorship.

Figure 22. Protests against censorship (Tunisia, 22 May 2010)

Twitter was chosen as one of the most common forms to disseminate information about the demonstration. Social media platforms, such as Twitter, then, allow for a great deal of participation in protest. Figure 23 shows one example of how activist used social media to mobilise.

Figure 23 Neo's message to Ammar404 video

Usually, such videos were hosted in a multimedia-sharing platform, and then shared in a link on Twitter:

> [@Ouss_ 20 May 2010] *Cooooooool ! de Neo à AMMAR 404 (via @Malek404) http://vimeo.com/11890804 #free404*

> *#manif22mai*
> [@SimplyBAHIA 20 May 2010] *Message de Neo à AMMAR 404 http://vimeo.com/11890804 #free404 #manif22mai*
> [@Malek404 20 May 2010] *600 vues en 3heures, ça démarre bien! -- Message de Neo à AMMAR 404 http://vimeo.com/11890804 #free404 #manif22mai*

According to interviewees, the initiative of 22 May 22 2010 was an important for the cyber-activists because, as Interviewee 1 said, they for the first time left their screens and started with protests on the ground:

> I think that May the 22nd was an important day. Well the day of course, May 22nd, but the whole campaign that started before May 22nd. It was the first time that bloggers and cyberactivists decided to leave their screens and online campaigns and to come on the ground, protest on the ground against censorship and for freedom of speech. (Interviewee 1)

Interviewee 4 agreed that the day marked a change in the way of how Tunisian activist were working against the censorship:

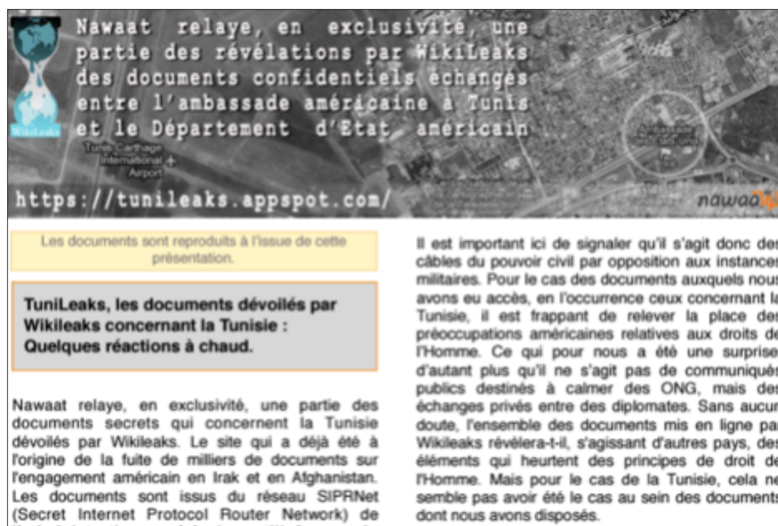
> May 2010 was a memorable month of my whole life, I still have archives of the hundreds of exchanged emails in order to set up the strike that day (that never really happened) and of course our Tunisians around the world did stick with us for this new twist. (Interviewee 4)

Tunileaks, the Wikileaks cables about Tunisia

The word 'Tunileaks' refers to the Wikileaks cables about Tunisia. It was launched by Nawaat, an independent collective blog founded in 2004 by Sami Ben Gharbia, Sufian Guerfali and

Riyadh Guerfali. Then, in 2006, Malek Khadraoui joined the blog. The main goal of Nawaat's founders was to provide a public platform for Tunisian dissident voices and debates. About one month before to the start of the Arab Spring in Tunisia, on Nov. 28, 2010, Nawaat launched 'Tunileaks' (see Figure 23), only one hour after Wikileaks released the documents. tunileaks.org was a website dedicated to publishing the revelations related to Tunisia. Those revelations (17 in total) focussed mainly on the neglect of human rights in Tunisia, the freedom of expression restrictions and the widespread corruption of Ben Ali's Government. Access to Tunileaks was rapidly blocked in Tunisia. It is important to reflect that in the West Wikileaks were published in the mainstream media (e.g., The New York Times, The Guardian, El País or Le Monde, among others) whereas in a country without freedom of expression, like Tunisia, a collective blog (i.e., Nawaat) served this purpose.

Figure 24. Tunileaks website. Source: http://nawaat.org/portail/wp-



Nawaat relaye, en exclusivité, une partie des révélations par WikiLeaks des documents confidentiels échangés entre l'ambassade américaine à Tunis et le Département d'Etat américain

https://tunileaks.appspot.com/

Les documents sont reproduits à l'issue de cette présentation.

TuniLeaks, les documents dévoilés par Wikileaks concernant la Tunisie : Quelques réactions à chaud.

Nawaat relaye, en exclusivité, une partie des documents secrets qui concernent la Tunisie dévoilés par Wikileaks. Le site qui a déjà été à l'origine de la fuite de milliers de documents sur l'engagement américain en Irak et en Afghanistan. Les documents sont issus du réseau SIPRNet (Secret Internet Protocol Router Network) de

Il est important ici de signaler qu'il s'agit donc des câbles du pouvoir civil par opposition aux instances militaires. Pour le cas des documents auxquels nous avons eu accès, en l'occurrence ceux concernant la Tunisie, il est frappant de relever la place des préoccupations américaines relatives aux droits de l'Homme. Ce qui pour nous a été une surprise, d'autant plus qu'il ne s'agit pas de communiqués publics destinés à calmer des ONG, mais des échanges privés entre des diplomates. Sans aucun doute, l'ensemble des documents mis en ligne par Wikileaks révélera-t-il, s'agissant d'autres pays, des éléments qui heurtent des principes de droit de l'Homme. Mais pour le cas de la Tunisie, cela ne semble pas avoir été le cas au sein des documents dont nous avons disposés.

content/uploads/2010/12/tn_lks.pdf

Nawaat announced the publication of the cables on Twitter and

the hashtag #tunileaks was created on Twitter in order to provide a space where people within and outside Tunisia shared information about the revelations:

> [@__Imen 28 Nov 2010] *les #wikileaks concernant la Tunisie sont là #TuniLeaks http://bit.ly/hSvxxb relayés en exclu par @nawaat*
>
> [@Nawaat 28 Nov 2010] *Nawaat relayera ce soir, en exclusivité, des documents concernant la #Tunisie révélés par #Wikileaks… Restez connectés sur @nawaat*
>
> [@Nawaat 28 Nov 2010] *Dans quelques minutes @nawaat diffusera en exclusivité certains des documents concernant la Tunisie révélés par #Wikileaks Restez connectés!*
>
> [@Nawaat 28 Nov 2010] *les #Tunileaks sont aussi disponibles sur google docs http://is.gd/hVGpi (utiliser seulement le https) #wikileaks #Cablegate*
>
> [@ifikra 16 Dec 2010]*#TuniLeaks on FP. Ben ALi'll fire the Washington Media Group which was hired burnish his Cosa Nostar for 420,000$/y http://is.gd/iQLx6*
>
> [@ifikra 15 Dec 2010] *Leilatrabelsi.com vient d'être regsitré il y a deux jours !!! http://whois.domaintools.com/leilatrabelsi.com #tunileaks effect !!*

However, an authoritarian regime, such as Ben Ali 's regime was, enforced a limited public sphere for socio-political reasons. The particularity of the revelations, however, was such that the Tunileaks gave the proof, the real documents about what was happening in Tunisia under Ben Ali's Regime. According to Interviewee 1:

> [Tunileaks] was really important. Actually we already knew all the stories released by Tunileaks. What was important was to have the proof, to have real documents. We used to hear these stories, and we did not have evidence, but these

> leaks gave us the evidence. (Interviewee 1)

The publicising of internal corruption and wide censorship that was happening posed a real threat to governments of all sorts by exposing the internal activities of state leaders. Concerning to the importance of the revelations, and in harmony with Interviewee 1, Interviewee 4 said, ‘I remember them like they were released yesterday. The impact was immense, and for the first time, people were sharing pieces of Tunileaks freely as they were pissed off that rumours about corruption turned out to be true’ (Interviewee 4).

From this statement, and given the timing of the release of the documents—just one month before the uprising started—it could be supposed out that the publications of the leaks could have a connection with the start of the revolution that took place just one month before the revelations. However, as Interviewee 3 explained, the relation between the publication of the Tunileaks and the Tunisian uprising is not clear:

> Perhaps some diplomacy because it was putting the diplomacy of the government in bad situation [...] The most important thing was the immolation of people, people who are burning themselves. This thing was very important. The effect of this thing. In many towns find people burning themselves. They did not write anything about Wikileaks, they did not write anything, but it was big fear and big fear of a system. Of course social media was working on this thing, like spreading the information. (Interviewee 3)

5.2 Digital Activism in Tunisia during the Arab Spring

Introduction

This chapter presents the results related to the visible phase, thus, digital activism in Tunisia during the Arab Spring. The analysis was carried out in two stages. In Stage 1 we mapped the networks of the digital activism Tunisia. With the aim to obtain clearer results, we decided to divide the findings into four phases to present the findings in order to better understand how the network was building during the uprising.

These four phases are as follows:

- *From 17 December to 28 December 2010:* This period begins the day that Mohammed Bouazizi set himself on fire to the day that Ben Ali visited Bouazizi at the hospital and appeared for first time on television talking about the uprising.

- *From 29 December 2010 to 4 January 2011:* During this period, the uprising became more important and started to extend across Tunisia. Moreover, some groups, such as lawyers and students, decided to join to the uprising.
- *From 4 January 2011 to 13 January 2011:* This period starts with the death of Bouazizi. After his passing, the situation in Tunisia became serious and the uprising was unstoppable.
- *14 January 2011:* This day marks the last day of the uprising, when Ben Ali left the country and fled to Saudi Arabia with his family, and the transitional process started in Tunisia.

Section 5.2.1 presents the findings related to the quantitative approach, that is, the social network analysis of the Tunisian digital activism before the 2010–2011 uprising. Then, section 5.2.2 presents the results related to the qualitative methods: the qualitative content analysis and semi-structured interviews.

5.2.1 The Tunisian digital network during the Arab Spring

The structure of the digital networks in Tunisia provide some indication of the way in which digital activists organised themselves on Twitter. As we have noted previously in Chapter 3, one way of conceptualising networks mathematically is in a graph (Borgatti et al., 2013, p. 11). In addition, graph theory gives us a representation of a social network as a model, presenting an elemental way of representing actors and relations. In a graph, nodes are represented as points in a two-dimensional space and arcs are represented by directed arrows between these points (Wasserman and Faust, 1994, p. 73).

The data collection contains a large amount of data. In order to gain a clearer picture of the activist network of digital activism in Tunisia during the Arab Spring, and because the aim of this chapter is to examine what nodes were the most central in the network, we have mapped each network in two stages (Edwards & Crossley, 2009, p. 44). In a first stage (see Figures 25, 27, 29 and 31), we mapped the whole network, and, in a second stage (see Figures 26, 28, 30 and 32), we focussed on the core of the network, according to the in-degree centrality measure. The sizes of the nodes are presented according to their in-degree value.

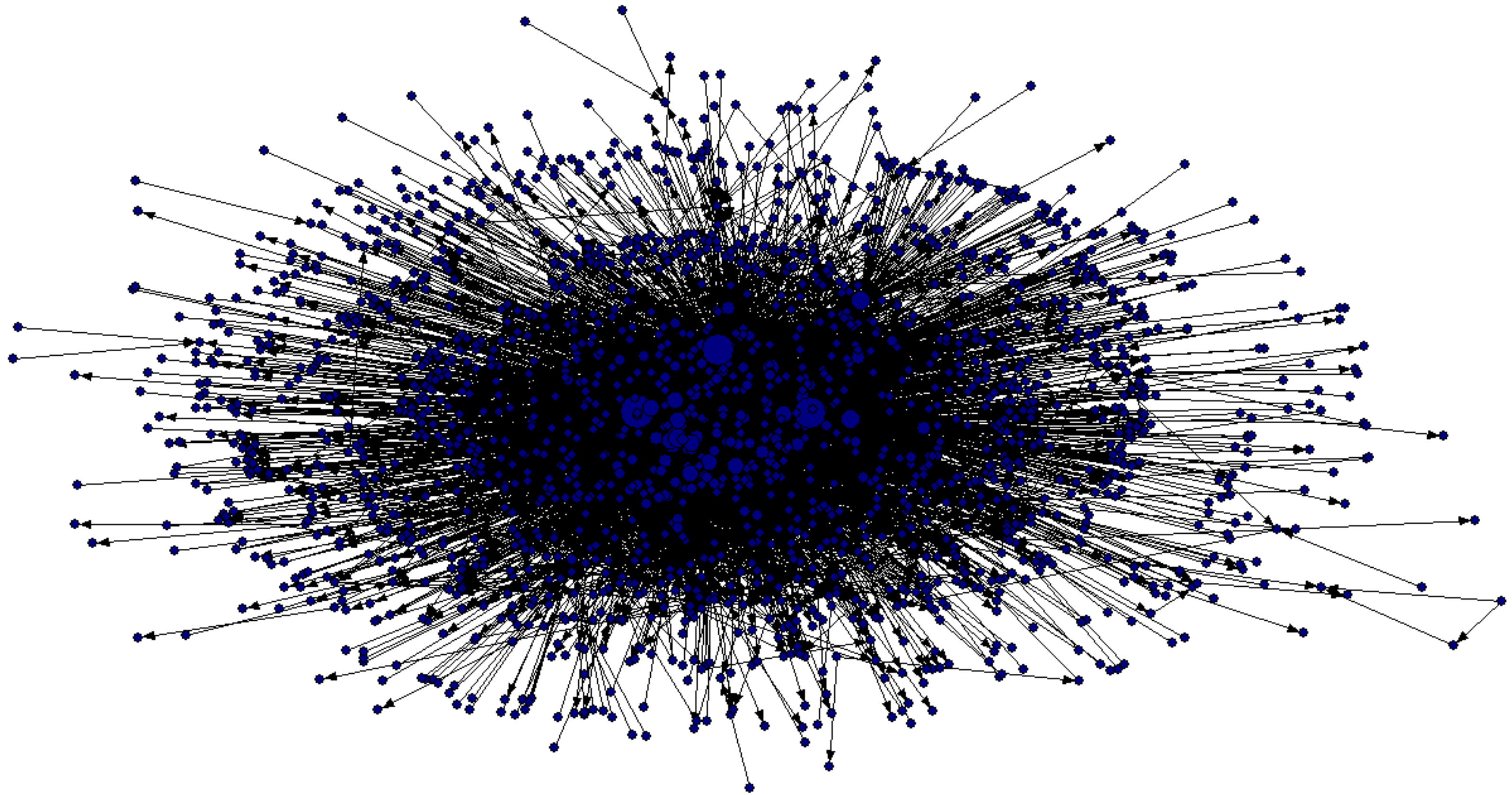


Figure 25. Tunisian digital activism network (17 December– 28 December 2010)

Figure 26. Core of Tunisian digital activism network (17 December– 28 December 2010)

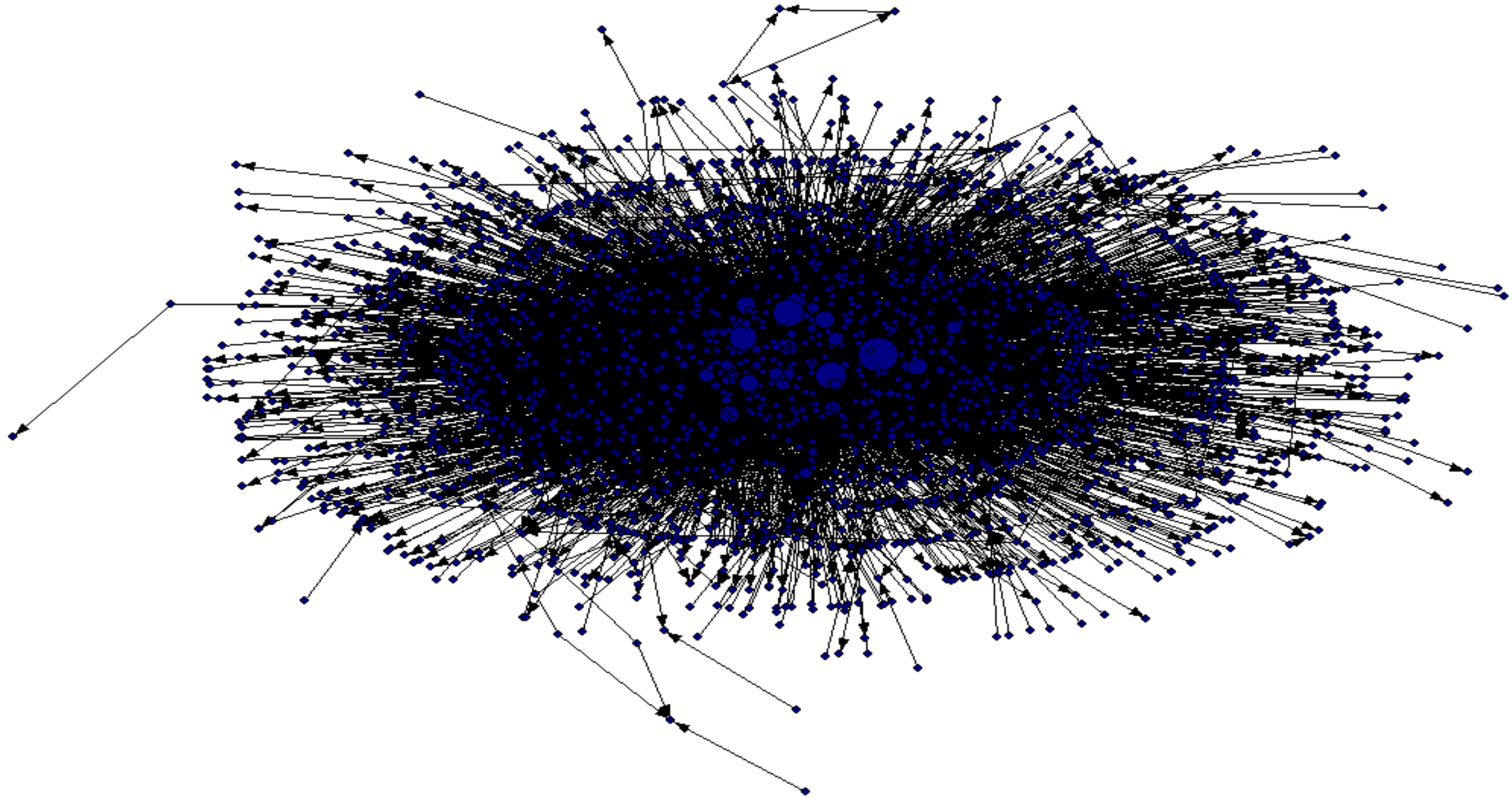


Figure 27. Tunisian digital activism network (29 December 2010–4 January 2011)

Figure 28. Core of Tunisia digital activism network (29 December 2010–4 January 2011)

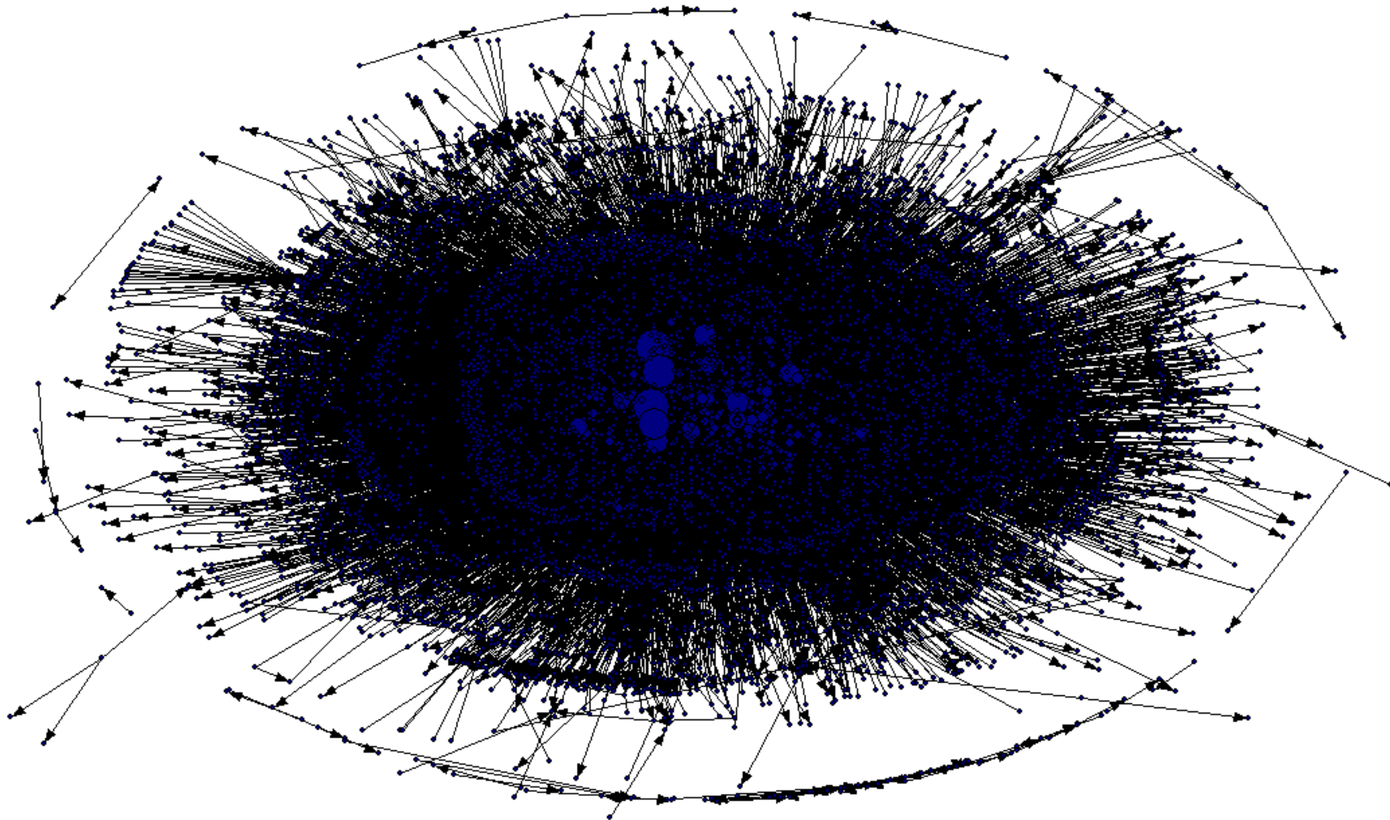


Figure 29. Tunisian digital activism network (5 January–13 January 2011)

Figure 30. Core of Tunisian digital activism network (5 January–13 January 2011)

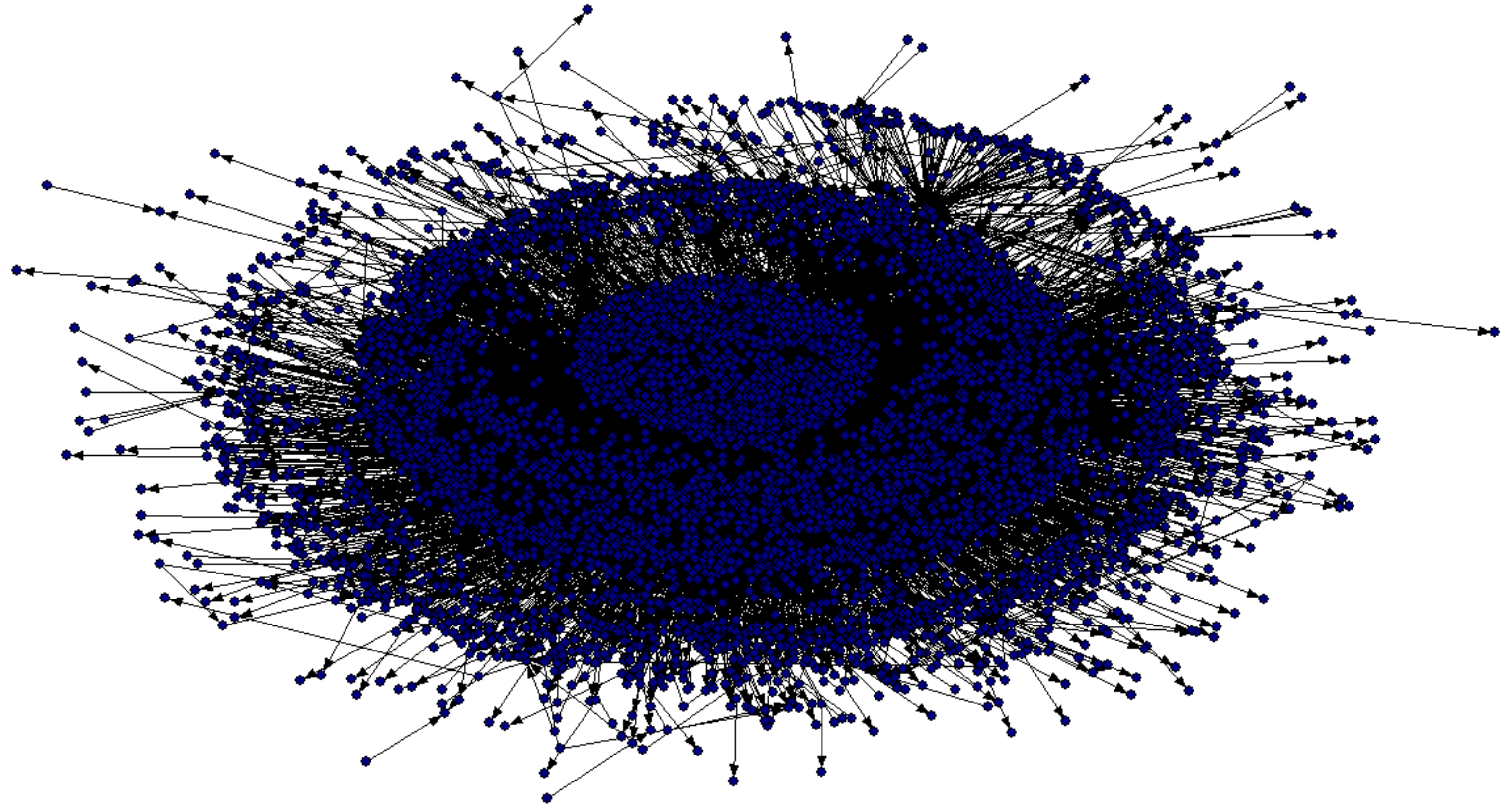


Figure 31. Tunisian digital activism network (14 January 2011)

Figure 32. Core of Tunisian digital activism network (14 January 2011)

5.2.2 Network analysis

As explained in Chapter 3, Section 3.5.1, we analysed the properties of the network at two levels of abstraction: network-level analysis, which provided us information about the properties of the whole network, and element-level analysis, which provided us information at the node level.

Network-level analysis

The variables that we measured in network-level analyses were the type of network (directed or undirected), the number of nodes, the total edges present in the network, the reciprocity between the edges, the density of the network and, finally, the transitivity. Tables 21, 22, 23, and 24 show the results of the network-level analysis of the Tunisian digital network during the Arab Spring.

Type of network	Directed
Total nodes	1446
Density (average)	0.003
Standard deviation	0.169
Total edges	7044
Reciprocity edges	786
Non-reciprocity edges	6258
Transitivity	0.064

Table 24. Network level propierties (December 17 2010-December 28 2010)

Type of network	Directed
Total nodes	2014
Density (average)	0-002
Standard deviation	0.100
Total edges	8390
Reciprocity edges	716
Non-reciprocity edges	7674
Transitivity	0.064

Table 22. Network level propierties (December 29 2010- January 4 2011)

Type of network	Directed
Total nodes	6620
Density (average)	0-001
Standard deviation	0.028
Total edges	30725
Reciprocity edges	2022
Non-reciprocity edges	28703
Transitivity	0.061

Table 23. Network level propierties (January 5 2011- January 13 2011)

Type of network	Directed
Total nodes	6096
Density (average)	0.001
Standard deviation	0.022
Total edges	21260
Reciprocity edges	648
Non-reciprocity edges	20612
Transitivity	0.061

Table 24. Network level propierties (January 14 2011)

As established in Section 3.5.1, the density of a network proportional to the possible ties that are present. Thus, in interpreting these findings, we have to take into account the size of the network. Generally, if there is a small network, the density will be high. In contrast, the larger the network, the lower the density will be. Our findings are based on large networks. The first network, from December 17 to December 28, consists in 1446 and the value of the density is 0.003. The second network, which comprises the period between December 29 2010 and January 4 2010, is a network with 2014 nodes and a density of 0.002. The next network, which covers from January 4 to January 13, has a size of 6.620 nodes with a density of 0.001, and, finally, the last network involves the January 14 and consists of 6096 nodes with a density of 0.001. The result related to the density values show a notable parallel between the four networks: the lower value of the four densities some few nodes exhibit extremely high connectivity while the vast majority are relative poorly connected, so the density of the network is low (0.003).

Reciprocity measures the likelihood of nodes in a directed network can be mutually linked, that is, reciprocity evaluates the tendency of vertex pairs to form mutual connections between each other. A simple measure of reciprocity is to count the number of reciprocated ties and divide these by the total number of ties (Borgatti et al., 2013, p. 155). If the reciprocity index equals 0, then there is not tendency to reciprocate; if it is equals 1, the tendency is maximal, thus all choices are reciprocated. Our data reveal a resemblance between the four networks that comprise the period of the Tunisian uprising, from December 17 2010 to January 14 2011. The numbers of reciprocity edges in the first network (from December 17 to December 28) are 786, which is the 0.11% of the total (7044). In the case of the network which comprises from

December 29th 2010 to January 4th 2011, the number of reciprocity edges is 716, 0.09% of the total (8.390). The third network, which covers from January 5 to January 13, the total of reciprocity edges are 2022, that is, the 0.07 percent of the total edges (30725). And, finally, the fourth network (January 14) presents 648 reciprocity edges, which means the 0.03 percent of the total edges (2126). As a result, a significant number of unreciprocated interactions in the networks means that there is a significant number of relationships which are unbalanced. Our findings suggest also suggest that lower values of reciprocity characterise networks centred on leaders or central nodes, which means an asymmetric distribution of power, showing that these networks tend to be hierarchical.

The idea of transitivity suggests that any two nodes are more likely to enjoy a tie if each is linked to a common third party (Crossley et al., 2015, p. 15). The basic idea is that of a binary relation in which one node is related to a second node, and the second node is linked to a third node, in which case the first node is also linked to the third node. The concept of transitivity is related to the importance of structural information contained in triads (Faust, 2006, p. 208). According to Mark Granovetter (1973), strong ties between nodes are often less useful that weak ties because they confine their applicability to small, well defined groups. Moreover, when two nodes have strong ties, they tend to be tied to one another, so they have a high transitivity parameter and, therefore, they have access to exactly the same information. Weak ties, by contrast, are source of novel information and tend to move in different circles, which means that they have access to different pools of information, which may prove useful (Crossley et al., 2015, p. 35). The results from the data in Tables 20–23 indicate low values of transitivity in the four networks: 0.064, 0.064, 0.061, and 0.47, respectively.

The absence of a high value of transitivity can be explained, according to Mark Granovetter (1973, using the concept of a 'bridge'. In general each person has a great many contacts, so a bridge between A and B provides the only route along which information or influence can flow from any contact of A to any contact of B and, consequently, from anyone connected indirectly to A to anyone connected indirectly to B. Bridging ties are a potential source of novel ideas. Because bridge ties are weak it is the weak ties the best potential sources of novel information (Borgatti & Halgin, 2011, p. 1171). Thus, bridges assume an important role in the diffusion of information. As a result, communities which present many bridges, resulting in low transitivity scores, show a weak local cohesion among nodes, but strong global cohesion (Granovetter, 1973; Borgatti & Halgin, 2011, p. 1171). Considering the transitivity values derived from the network-level analysis of the four networks, the low transitivity values suggest the presence of a weak ties structure which constitute networks with low local cohesion but strong global cohesion that allows the total network to work together to achieve goals, for example, facilitating the diffusion of novel information.

Element-level analysis

This section illustrates the findings related to the element-level analysis of the networks. The analysis has been carried out computing the same four centrality measures as in Chapter 7: degree centrality, betweenness centrality, eigenvector centrality (as local measures), and closeness centrality (as global measure) (Lee, 2008, p. 3; Everett & Borgatti, 2005, p. 57).

As has been expounded in Chapters 3, degree centrality refers to greater access to network flows. In our study we have taken into

account the in-degree centrality, that is, the number of links incident upon a node (e.g., the number of ties that a node has). Betweenness centrality is a measure of the control that a node exerts over network flow, assuming that information always takes the shortest possible path. This notion was introduced by Linton Freeman (1979) to measure human control over communication between other humans in a social network. Eigenvector centrality measures the importance or influence of a node in a network, and, finally, closeness centrality is defined by the sum of distances to all other nodes.

Tables 25–28 provide the 10th nodes with the higher values for the centrality measures (ordering by in-degree centrality).

Node	Degree	Betw.	Eigen.	Clos.
@Nawaat	1,374	8.115	82.168	1.452
@weddady	702	4.923	27.241	1.486
@ifikra	622	5.976	44.969	1.541
@TunObs	476	1.017	38.327	1.685
@t_kahlaoui	318	0.953	18.914	1.712
@sbz_news	263	0.231	17.178	1.737
@emnabenjemaa	234	2.189	5.994	1.821
@Houeida	230	0.575	7.193	1.682
@Slim404	214	1.068	9.166	1.755
@Karim2k	190	4.258	12.606	1.766
@malekk	165	1.701	40.078	1.72
@brian_whit	152	0	3.4	1.756
@moalla	149	0.52	6.98	1.754
@rafik	149	2.172	3.177	1.709
@Azyoz	147	0.603	8.978	1.787
@RamyRaoof	147	0.603	9.778	1.806
@dima_khatib	141	2.017	1.483	1.832
@sofien_chourabi	141	0.184	4.207	1.718
@alialdafiri	136	1.194	4.207	1.913
@Halmustafa	123	1.088	59.869	1.829
@Souihli	103	1.013	5.391	1.762
@ByLasKo	97	0.332	7.046	1.865
@Almiraat	84	1.304	8.719	1.912
@ibnkafka	79	1.387	7.604	1.902
@ClaireInParis	78	0.752	2.561	1.875
@blech_klem	74	0.345	6.478	1.805
@sucrecanl	61	0.772	5.534	1.913

@benmhennilina	60	0.536	10.291	1.877
@sarah81m	60	0.971	4.522	1.812
@404Dreamer_ML	59	0.876	9.259	1.899
@Alfarhan	56	0.907	1.469	1.865
@Khalilbm	56	0.304	1.618	2.127
@ooouups	56	1.426	2.057	1.99
@Kalimakhus	53	0.273	9.797	2.276
@samihtoukan	49	0.533	0.322	2.154
@Astrubaal	46	0.254	5.622	1.991
@themoornextdoor	46	0.248	2.134	1.835
@monaeltahawy	45	0.393	6.056	1.957
@venatoria	44	0.346	2.923	1.978
@Eyemen	42	1.171	3.122	1.917
@FirasKhan	42	0	1.204	2.004
@3arabawy	40	0.301	0.678	2.302
@zizirider1969	40	0	0.575	2.126
@dsaied	38	0.092	1.255	2.058
@asmamzoughi	37	0.392	0.993	2.084

Table 25 Nodes with higher centrality values (Dec.December 17th–December 28th)

Node	Degree	Betw.	Eigen.	Clos.
@Nawaat	1,153	7.341	67.944	0.213
@sbz_news	721	0.985	44.56	0.207
@weddady	674	6.315	43.11	0.209
@ifikra	521	2.61	28.246	0.207
@benmhennilina	339	1.022	19.781	0.205
@Annonewsnet	283	2.685	8.54	0.202
@RamyRaoof	264	0.944	12.889	0.202
@Slim404	264	1.089	12.632	0.202
@t_kahlaoui	227	0.424	14.612	0.199
@dima_khatib	203	2.132	13.261	0.198
@Houeida	197	0.55	7.728	0.201
@brian_whit	196	0	7.283	0.207
@gamaleid	194	1.045	8.696	0.198
@Zeinobia	184	0.694	14.908	0.202
@IbnKafka	171	3.098	16.071	0.2
@moalla	157	0.935	6.404	0.198
@walidsa3d	150	1.609	11.685	0.201
@monaeltahawv	140	0.976	13.155	0.199
@ByLasKo	124	0.891	6.327	0.198
@octavianasr	121	0.58	4.651	0.2
@ooouups	115	1.373	8.943	0.197
@jerbil 13	114	0	6.153	0.189
@TunObs	109	0.221	11.844	0.198
@malekk	107	1.279	26.657	0.199
@Azyoz	106	0	4.194	0.197
@sofien_chourabi	98	0.095	5.66	0.198
@sans_titre404	91	0	4.495	0.196

@Halmustafa	79	0.611	50.864	0.196
@Almiraat	76	0.758	9.781	0.195
@Selim_	75	0.517	6.306	0.195
@emnabenjemaa	73	0.262	3.017	0.195
@yarninameshri	68	0	2	0.188
@Hisham_g	64	0	5.255	0.193
@Ghonim	62	0.66	1.528	0.19
@hendsabry	62	0	1.005	0.192
@yasmineryan	62	0.315	2.353	0.189
@Clipperchip	58	0.38	0.465	0.188
@Nizar_b	56	0.79	9.167	0.195
@Rue89	56	0	1.037	0.194
@Gsquare86	55	0.319	5.427	0.193
@Blech_klem	49	0.261	4.763	0.192
@ferjani9arwi	49	0.311	9.477	0.191
@Rafik	49	0.498	2.188	0.194
@Liliopatra	46	0.196	3.066	0.194
@Soniabess	44	0	2.41	0.192

Table 26. Nodes with higher centrality values (29 December 2010–4 January 2011)

Node	Degree	Betw.	Eigen.	Clos.
@Nawaat	969	2.677	35.237	1.501
@weddady	936	6.293	44.105	1.478
@sbz_news	886	1.197	29.242	1.543
@dima_khatib	872	4.434	27.25	1.501
@Slim404	616	0.695	30.013	1.559
@yassayari	559	1.239	23.183	1.717
@ifikra	525	1.024	17.427	1.618
@Clipperchip	467	1.162	7.386	1.848
@epelboin	419	1.233	9.407	1.776
@Annonnewsnet	399	1.509	16.958	1.635
@Houeida	397	0.407	15.6	1.667
@monaeltahawy	377	1.063	13.247	1.784
@brian_whit	343	0.37	9.526	1.67
@ibnkafka	268	1.488	20.051	1.813
@moalla	254	0.543	13.06	1.749
@Halmustafa	249	0.372	12.067	1.709
@ooouups	242	1.116	18.905	1.823
@Psycke	230	0.304	11.577	1.845
@TunObs	230	0.241	16.369	1.727
@PartiPirate	227	0.51	5.742	1.902
@rwwfr	223	0.463	3.633	2.02
@mimouna	218	0.335	12.208	1.872
@Azyoz	191	0	10.01	1.822
@walidsa3d	186	0.288	7.969	1.801
@Selim_	182	0.544	24.85	1.83
@benmhennilina	181	0.285	10.177	1.785
@Karim2k	171	0.346	7.543	1.889
@jilliancyork	167	0.325	6.238	1.808

@Mira404	166	0.277	7.323	2
@ByLasKo	151	0.197	10.592	1.903
@emnabenjemaa	151	0.162	10.283	1.87
@Blech_klem	146	0.485	14.91	1.9
@alialdafiri	140	0.278	2.585	1.966
@olfa_riahi	139	0.518	12.764	1.912
@pierrehaski	138	0.258	3.362	1.938
@Almiraat	134	0.815	15.223	1.85
@PartiPirate_tn	132	0.22	2.573	1.86
@malekk	128	0.217	13.166	1.862
@Takriz	127	0.087	6.36	1.869
@Mtanwcha	125	0.272	6.431	1.898
@eff	123	0.002	1.162	2.053
@bluetouff	121	0.222	2.858	1.971
@Naddo_O	120	0.125	9.804	2.039
@RamyRaoof	117	0.092	3.822	1.969

Table 27. Nodes with higher centrality values (5 January 2011–13 January 2011)

Node	Degree	Betw.	Eigen.	Clos.
@dima_khatib	1,484	6.486	54.35	1.405
@Nawaat	457	1.376	30.242	1.826
@AlanFisher	417	1.011	12.832	2.017
@essamz	397	1.163	8.572	2.15
@weddady	389	2.689	28.185	1.745
@monaeltahawy	284	0.905	15.83	1.96
@sbz_news	225	0.392	16.242	1.931
@Clipperchip	223	0.71	9.622	2.335
@Halmustafa	215	0.798	15.139	1.774
@ifikra	208	0.367	14.219	1.964
@alialhabibi	205	1.051	14.579	2.152
@ibnkafka	201	1.469	30.603	2.146
@alfarhan	190	0.35	3.152	2.12
@_niss	171	0.324	3.233	2.481
@yassayari	170	0.166	11.923	2.01
@Houeida	164	0.185	12.527	2.068
@moalla	162	0.824	11.758	1.873
@mimouna	155	0.865	25.957	2.173
@epelboin	147	0.407	7.74	2.198
@abdelseo	143	0.217	5.456	2.33
@jawazsafar	140	0.389	7.76	1.979
@brian_whit	139	0.16	9.579	2.046
@lemondefr	139	0.132	7.284	2.227
@achrisafis	134	0.008	4.259	2.264
@emudeer	128	0.311	1.984	2.327
@Psycke	126	0.276	10.089	2.156
@acarvin	121	0.673	10.085	2.398
@Selim_	120	0.823	30.881	2.278

@shadihamid	116	0.421	9.354	1.976
@arouabensalah	115	0.33	7.964	2.168
@sultanalqassemi	109	0.113	5.02	2.298
@al_bara	98	0.212	1.434	2.378
@samihtoukan	97	0.207	4.398	1.985
@France24	92	0.106	3.935	2.272
@blech_klem	91	0.284	10.568	2.25
@egyptstate	90	0	1.694	2.401
@ByLasKo	89	0.112	7.158	2.372
@Mira404	87	0.223	8.63	2.205
@memam8	85	0.163	4.012	2.347
@Aboflan	84	0.001	0.126	3.474
@Gamaleid	81	0	3.291	2.243
@erwancairo	79	0	2.441	2.224
@Haytham_t	79	0.09	1.656	2.389
@Soumow	79	0.053	3.714	2.312
@Khalilbm	76	0.236	15.952	2.269
@Ahmed	73	0.114	3.306	2.082
@3azizm	72	0.11	2.084	2.42
@abudayhold	72	0.089	1.365	2.469
@atunfreeman	69	0.19	2.555	2.425

Table 28. Nodes with higher centrality values (14 January 2011)

Figure 33 shows a comparison of the centralities values with higher values. The boxes illustrate the 25, 50 (the median, represented by the black line), and 75 percentiles of each group of centrality values. As we can see, during the uprising the values of each centrality are very similar, except to the values related with closeness centrality.

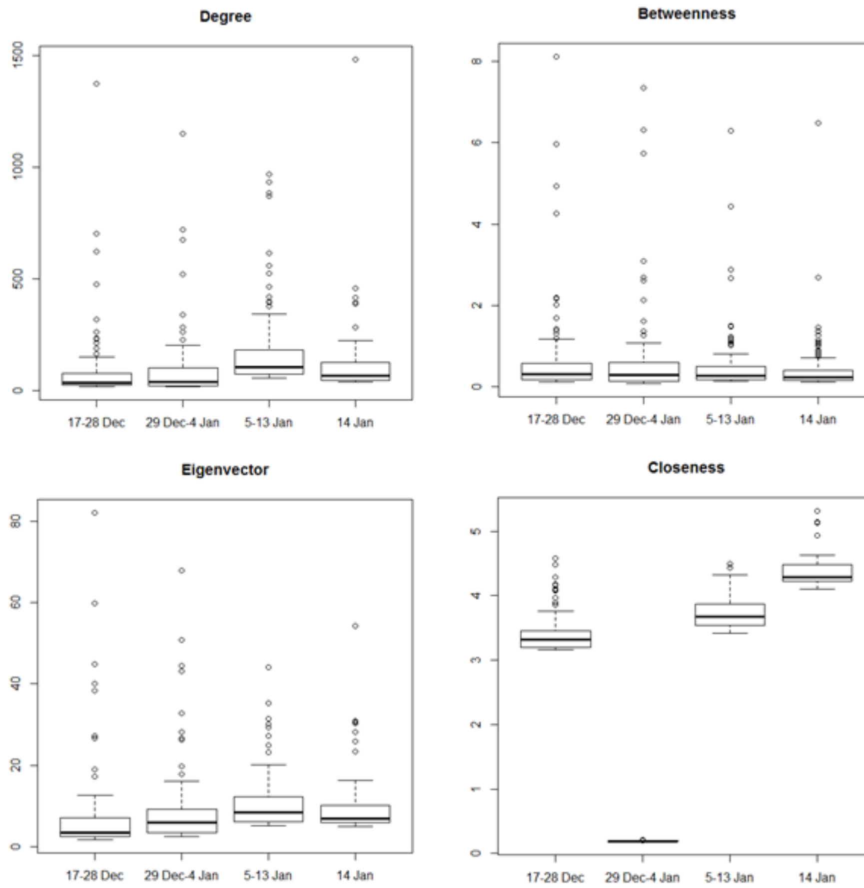


Figure 33. Comparison of centralities with higher values

As the above tables demonstrate, 19 different nodes were the most influential across the four networks. Table 29 illustrates the profile of these 19 nodes, which features information about the person or institution behind the Twitter user and some biographical notes, if they are relevant for this study (e.g., information about whether he or she was arrested, took part in an event, or information about relatives). Nevertheless, there were some cases in which we could not find information pertaining to this node. These cases are signalled by NA.

User	Biographical notes
@Nawaat	Nawaat/Tunisian. Nawaat, which means core in Arabic, in an independent collective blog co-founded in 2004 by Sami Ben Gharbia, Sufian Guerfali and Riadh Guerfali. On Nov. 28, 2010, Nawaat launched the Tunileaks, the Wikileaks cables about Tunisia. The Electronic Frontier Foundation awarded Nawaat's co- founders with their 2011 Pioneer Award. Website: http://nawaat.org/portail
@weddady	Waser Weddady- Mauritain/American. His father was a diplomat who served as an ambassador in Ethiopia, Nigeria, Libya, Benin, and Syria. In the 1990s he became involved with the country's oposition movement and he exiled in the United States in 1999
@ifikra	Sami Ben Gharbia / Tunisian. Blogger, human rights campaigner. He was a political refugee living in Netherlands between 1998 and 2011. He is the founding director of the Advocacy arm of Global Voices Online and co-founder of Nawaat. In 2011 *Foreign Policy Journal* named Sami Ben Gharbia as a major world influencer in promoting government transparency. Blog: https://ifikra.wordpress.com
@TunObs	Tunisian-Media Outlet
@t_kahlaoui	Tarek Kahlaoui / Tunisian. PhD in Islamic art. Former director of the Tunisia Strategic Studies. Assistant Professor of Islamic History and Art at Rutgers University
@sbz_news	SBZ news, Tunisia
@emnabenjemaa	Emna Ben Jemaa, Tunisian-Journalist. Journalist at Tunivisions, she also has collaborated with Tunis Hebdo and Africa Magazine. She was arrested on May 21, 2010,

	and she was questioned about her online activities and her relation with Tunisian bloggers and journalists. They also asked her about the anticensorship rally in front of the Ministry of Technologies which was planned for the next day, on May 22. (Source: http:// threatened.globalvoicesonline.org/blogger/emn a-ben- jemaa)
@Houeida	Houeida Anouar / Tunisian Journalist. Editor-in-chief of Huffington Post Maghreb.
@Slim404	Slim Amamou / Tunisian. Blogger and anti-censorship activist, he played an important role before the revolution, organizing protests and initiatives against the censorship in Tunisia. After the revolution, he took part in the Transitional Government and he became Secretary of State for Sport and Youth. He resigned from the role on May 25, 2011 in protest of the censorship of several websites carried out by the Transitional Government. He was arrested on 21 May 2010, and, then, on Jan. 6, 2011, during the uprising. Blog: https://nomemoryspace.wordpress.com
@benmhennilina	Lina Ben Mhenni. Tunisian activist. Blogger. Assistant lecture at Tunis University. During the rule of Ben Ali, Lina was one of the few bloggers to blog using her real name, instead of adopting a pseudonym. She was one of the organiser of the May 22, 2010, demonstration against the censorship in Tunisia. During the revolution that started on Dec. 17th, 2010, she was the only blogger who covered the uprising from the interior cities (e.g., Sidi Bouzid or Kasserine) instead of cover it from Tunis. In 2011 she was nominated for the Nobel Peace Prize for her contribution during the Tunisia uprising. Her father, Sadok Ben Mhenni, was a political prisoner in the 1970s and he was one of the founders of the Tunisian section of Amnesty International. Her mother, Emma, was part of

	the student union movement. Her blog: atunisiangirl.blogspot.com
@Anonnewsnet	Anonymous News Network. Anonymous is an international network of activist and hacktivist
@RamyRaoof	Ramy Raoof. Egyptian/Digital rights and security researcher. He was ranked number 14 by Forbes Middle East in a list of Top 100 Arab Presence on Twitter in 2011
@dima_khatib	Dima Khatib. Syrian/Journalist. Managing Director AJ+. Previously she worked as a correspondent, producer, and Latin-America Bureau Chief for Al Jazeera. Since 2003 Dima lectures Journalism at the American University in Dubai
@yassayari	Yassine Ayari. Tunisian. He was one of the organisers of the 22 May 2010 demonstration in Tunis. He was arrested on 21 May 2010
@Clipperchip	Touya Akira
@epelboin	Fabrice Epelboin. French. Teacher and entrepreneur
@AlanFisher	Alan Fisher. Scotlan. Journalist at Al-Jazeera
@essamz	NA, Saudi Arabia
@monaeltahawy	Mona Eltahawy. Egypt-United States. Journalists. Mona Eltahawy is a columnist and international public speaker on Arab and Muslim issues. She was a correspondent for Reuters News Agency in Cairo and Jerusalem. Also she has written for The Guardian, The Washington Post, the International Herald-Tribune or U.S News and World Report. During the uprising that took place in Egypt on Jan., 2011, she was arrested and she was detained for 12 hours and sexuality assaulted. Newsweek magazine named Mona Eltahawy one of the '150 fearless woman of 2012', Times

	magazine named her, with other activists, People of the Year and Arabian Business magazine named her one of the 100 most Powerful Arab Women.
@Halmustafa	Hasan Al Mustafa is a Saudi writer and journalist. He works as journalist at Al-Arabiya. Al-Arabiya is a Saudi- owned pan-Arab television news channel launched on March 3, 2003

Table 29. Profile of the most central nodes (17 December 2010–14 January 2011)

We measured the centralities of the networks' nodes using the software UCINET, developed by Freeman, Everett and Borgatti. Then, we searched for correlations between pairs of centralities, using the Pearson correlation coefficient. Following to Furlan and Travieso (2015, p. 3), we call this the centrality correlation profile of the network, consisting of the values of the correlation coefficient for all pairs of centralities studied to characterise the network. Table 30 shows the values of the Pearson coefficients for all pairs of the centralities for the first network.

	Degree	Betw.	Eigen.	Clos.
Degree	*	0.6557310	0.57804200	-0.1075533
Betw.	0.6557310	*	0.76688122	-0.0954255
Eigen.	0.5780420	0.7668812	*	-0.08833872
Clos.	-0.107553	-0.0954255	-0.08833872	*

Table 30. Centrality correlation profile (17 December 2010– 28 January 2011)

This centrality correlation profile presents a lower correlation between centralities than in the network before the Arab Spring (see Section 5.1). In particular, closeness centrality shows a negative correlation between this measure and the other centrality measures. The highest correlation is between eigenvector centrality and betweenness centrality (r=0.77). The next highest correlation is between degree centrality and betweenness centrality (r=0.66), followed by degree and eigenvector (r=0.58).

Figure 34 shows scatterplots for the centrality correlation profile of the first network (December 17–December 28). Figures 35 and 36 show the histogram and the distribution of the centrality measures of the first network (17 December–28 December 2010).

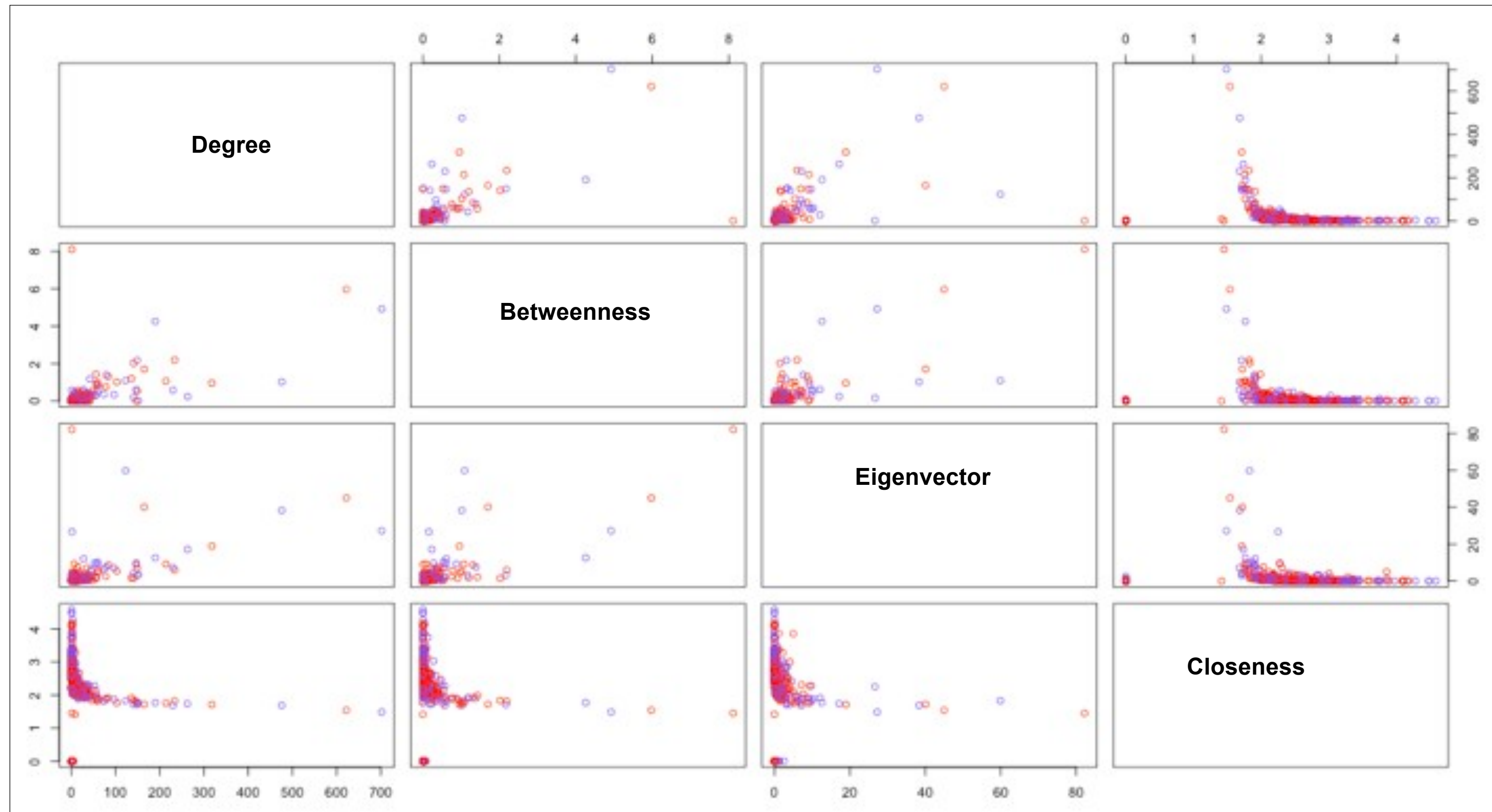


Figure 34. Centrality profile correlation (17 December–28 December 2010)

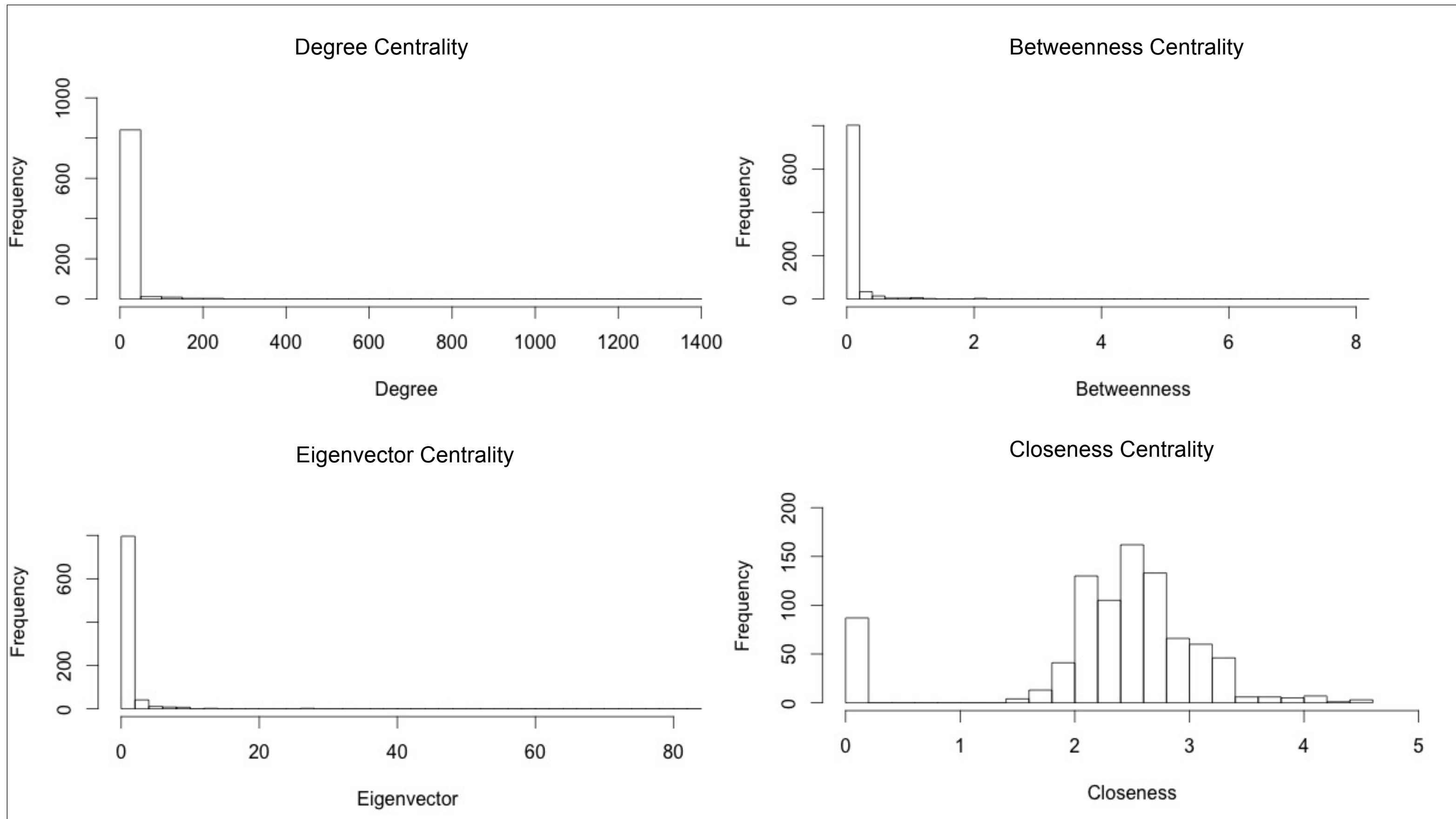


Figure 35. Centrality measures (17 December–28 December 2010)

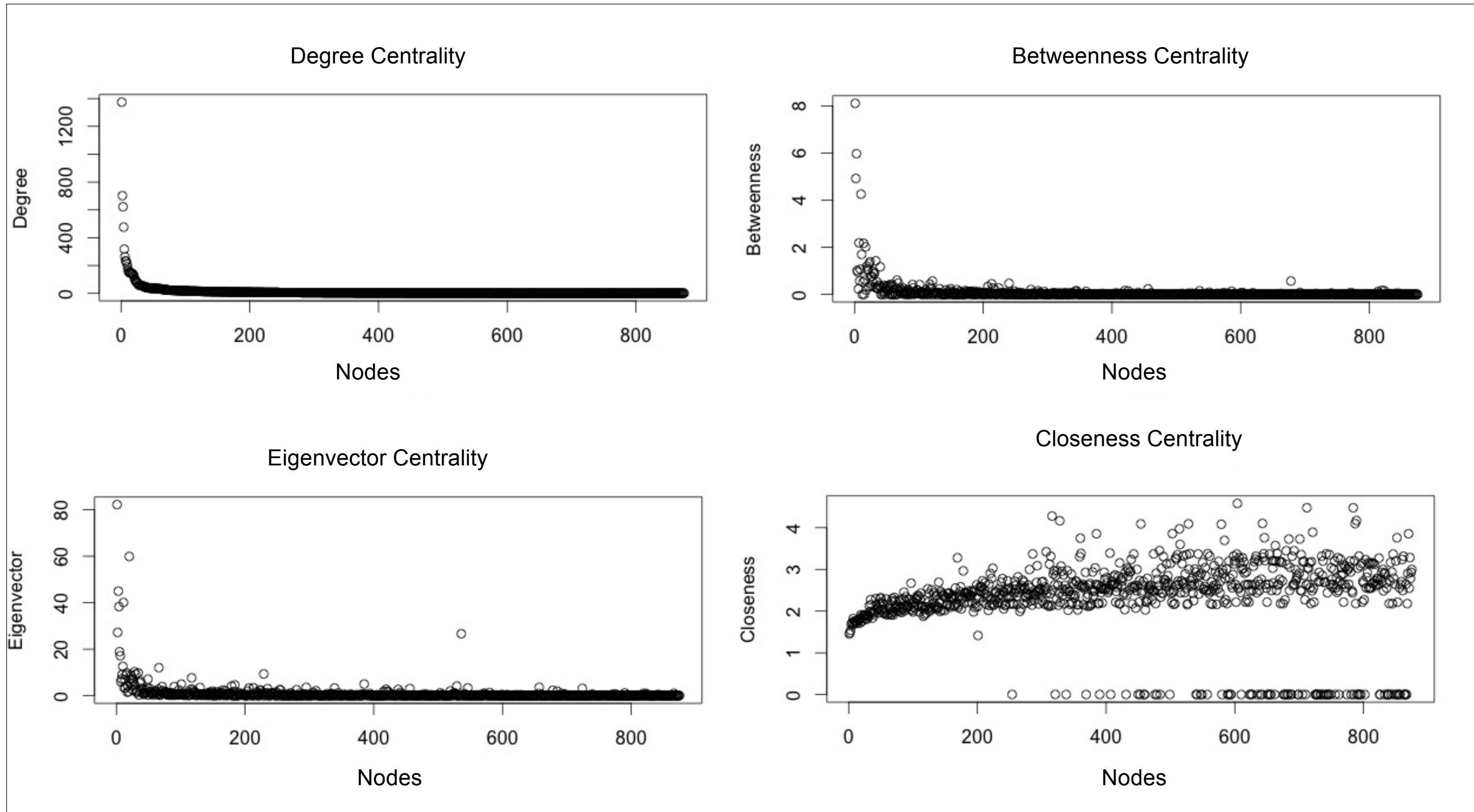


Figure 36. Centrality distributions (17 December–28 December 2010)

The network which covers the period from 29 December 2010 to 4 January 2011 presents the centrality correlation presented in Table 31.

	Degree	Betw.	Eigen.	Clos.
Degree	*	0.7886648	0.8141220	0.2255021
Betw.	0.7886648	*	0.7893499	0.1852142
Eigen.	0.8141220	0.7893499	*	0.2439862
Clos.	0.2255021	0.1852142	0.2439862	*

Table 31. Centrality correlation profile (29 December 2010– 4 January 2011)

From the data in this table, it can be concluded that, in general, the centralities have high values of the Pearson coefficient. The four centralities are positively correlated, although the correlation between measures was also quite varied. This positive correlation means that nodes that are important with respect to one definition are, in general, also important according to other definitions (Furlan & Travieso, 2015, p. 3). The highest correlation is between degree centrality and eigenvector centrality (r=0.81). The next highest correlation is between eigenvector centrality and betweenness centrality (r=0.79), but is the same correlation of that between degree and betweenness (r=0.79). Closeness is the less strongly correlated measure, while degree centrality has less impact on closeness centrality, and in particular, closeness and betweenness have the lowest correlation coefficient (r=0.19).

Figure 37 shows scatterplots for the centrality correlation profile of the second network (29 December 2010–4 January 2011). Figures 38 and 39 show the histogram and the distribution of the centrality measures of the first network (29 December 2010–4 January 2011.

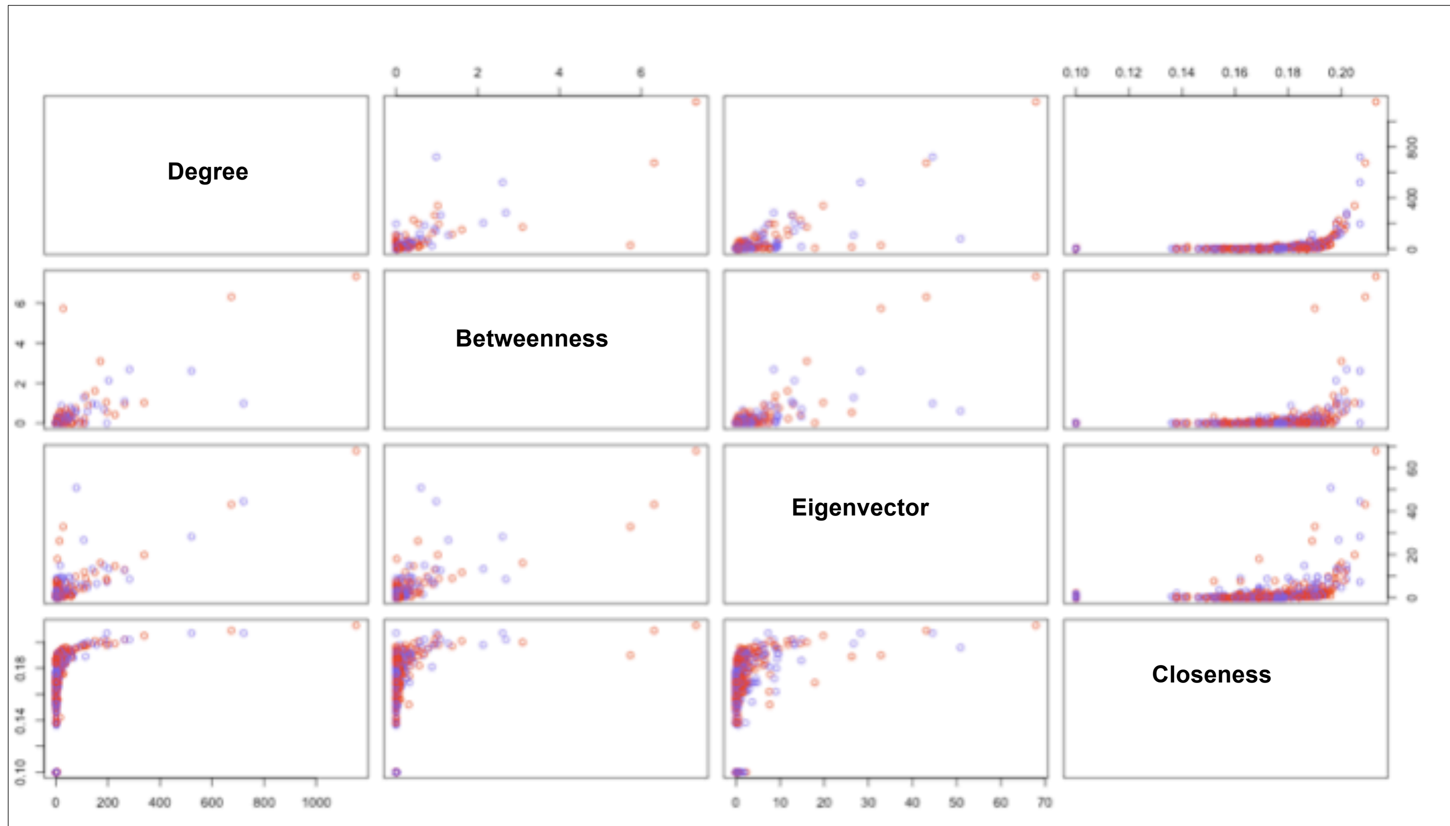


Figure 37. Centrality profile correlation (29 December 2010–4 January 2011)

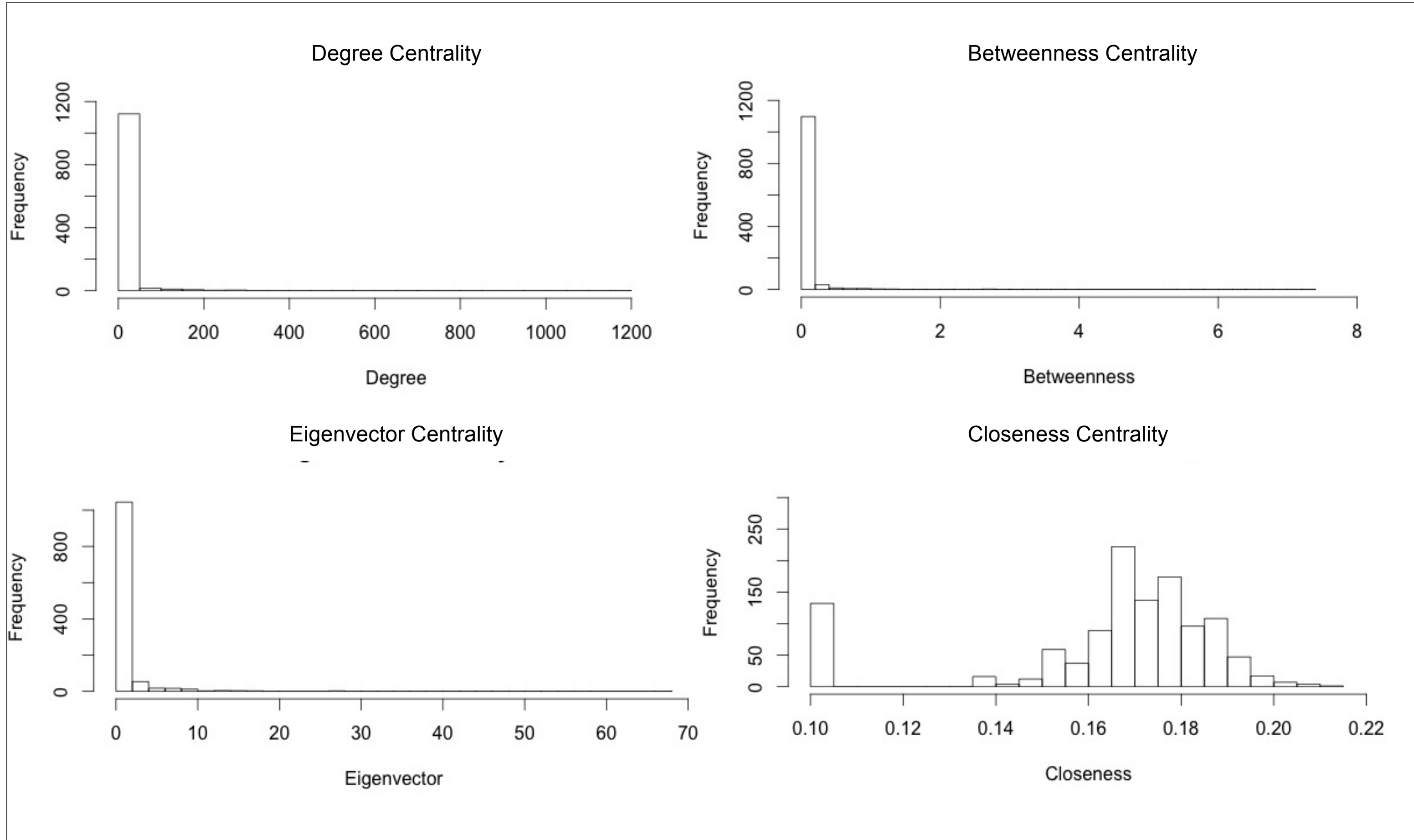


Figure 38. Centrality measures (29 December 2010–4 January 2011)

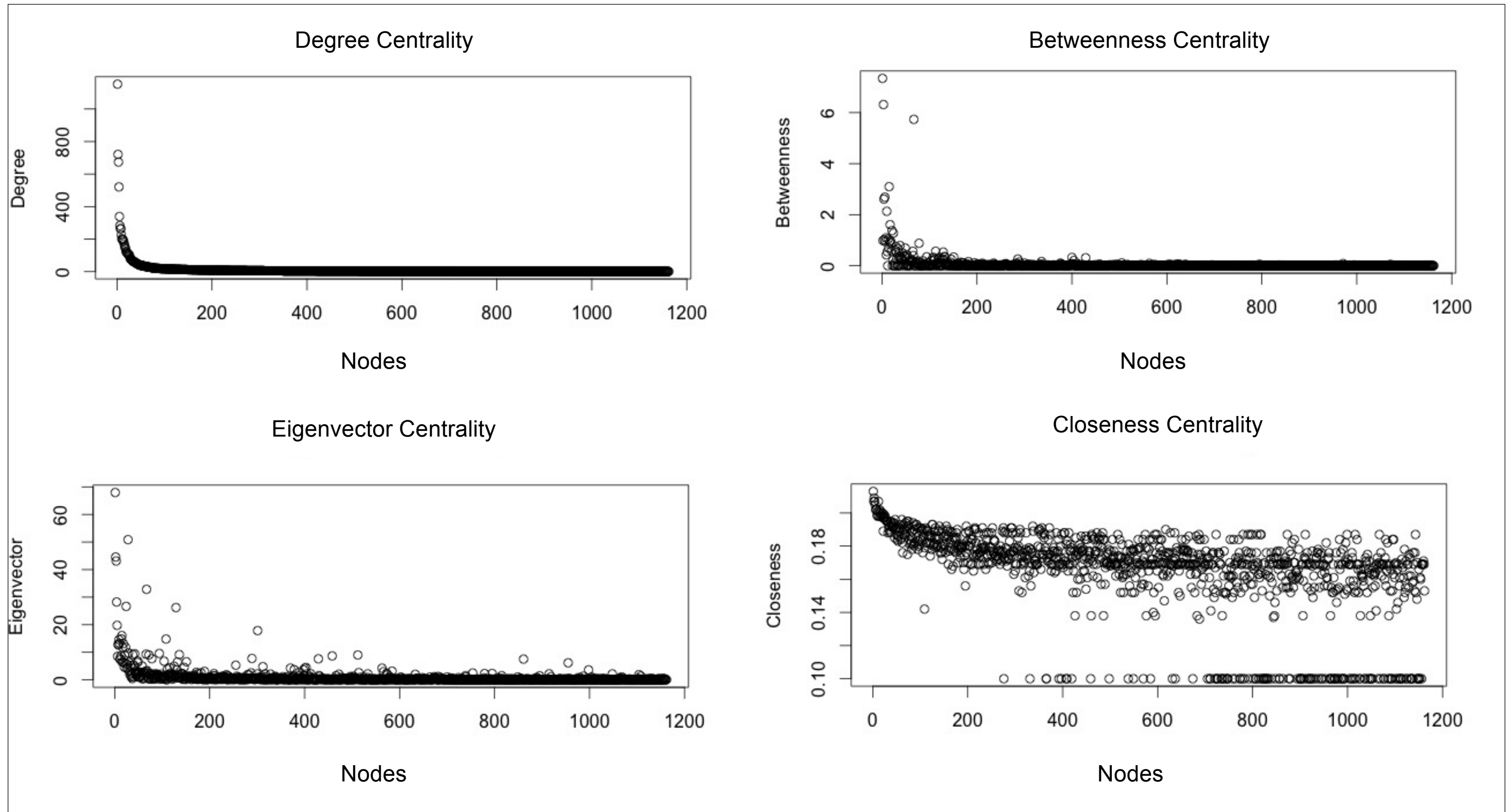


Figure 39. Centrality distributions (29 December 2010–4 January 2011)

Table 32 shows data for the centrality correlation profile of the network which covers the period from January 5th to January 13th:

	Degree	Betw.	Eigen.	Clos.
Degree	*	0.79854545	0.81805761	-0.0663360
Betw.	0.79854545	*	0.76448856	-0.0504109
Eigen.	0.81805761	0.76448856	*	-0.0631309
Clos.	-0.0663360	-0.05041093	-0.06313099	*

Table 32. Centrality correlation profile (5 January 2011-13 January 2011)

This centrality correlation profile presents, in general, a high correlation between centralities, except in the case of eigenvector centrality, which presents a negative correlation between this measure and the other centrality measures. The highest correlation is between degree centrality and eigenvector centrality (r=0.82), followed by the correlation between degree centrality and betweenness centrality (r=0.80). The correlation value between eigenvector centrality and betweenness is r= 0.77.

Figure 40 shows scatterplots for the centrality correlation profile of the second network (5 January– 13 January 2011). Figures 41 and 42 show the histogram and the distribution of the centrality measures of the first network (5 January–13 January 2011).

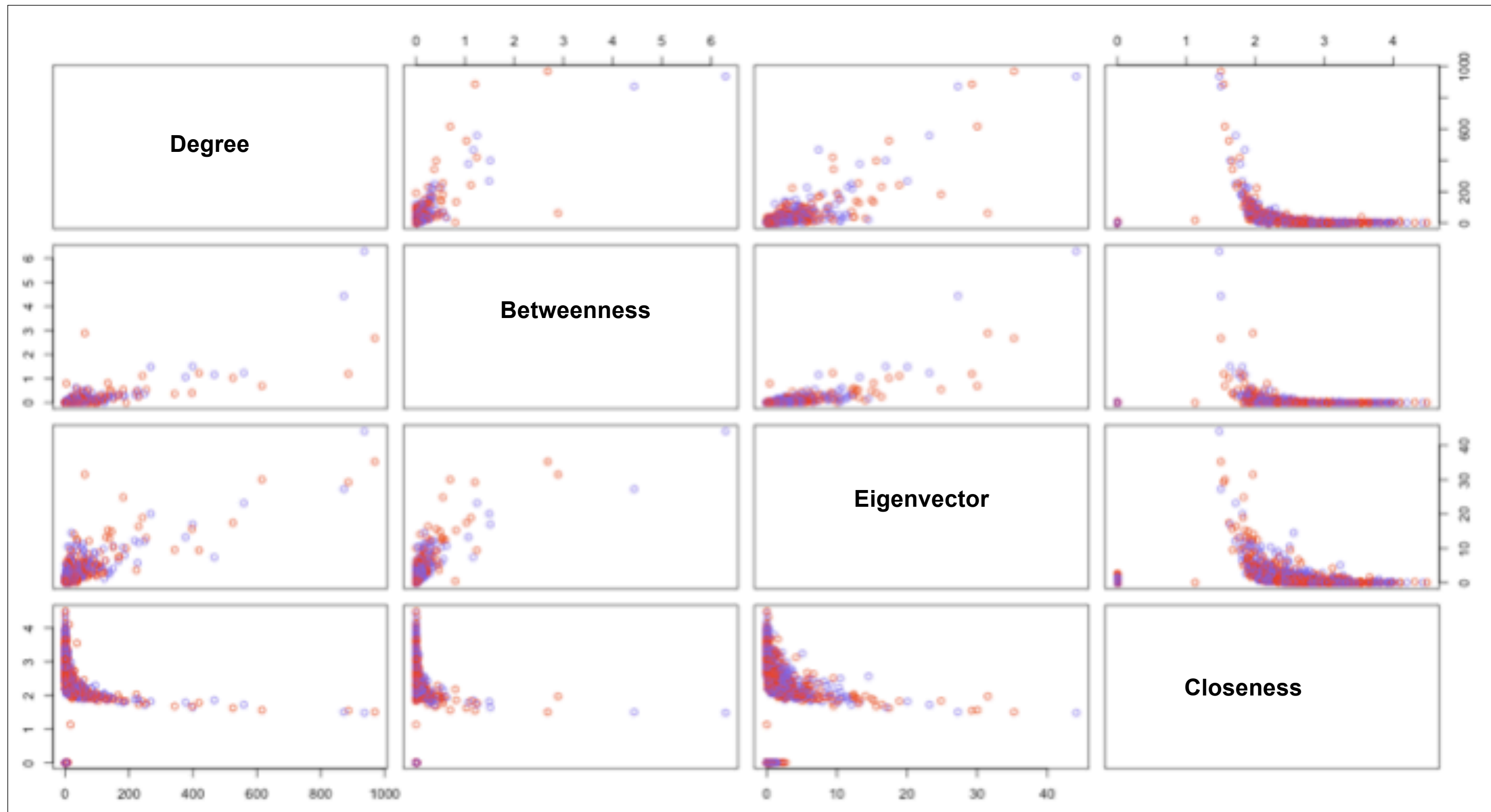


Figure 40. Centrality profile correlation (5 January 2011–13 January 2011)

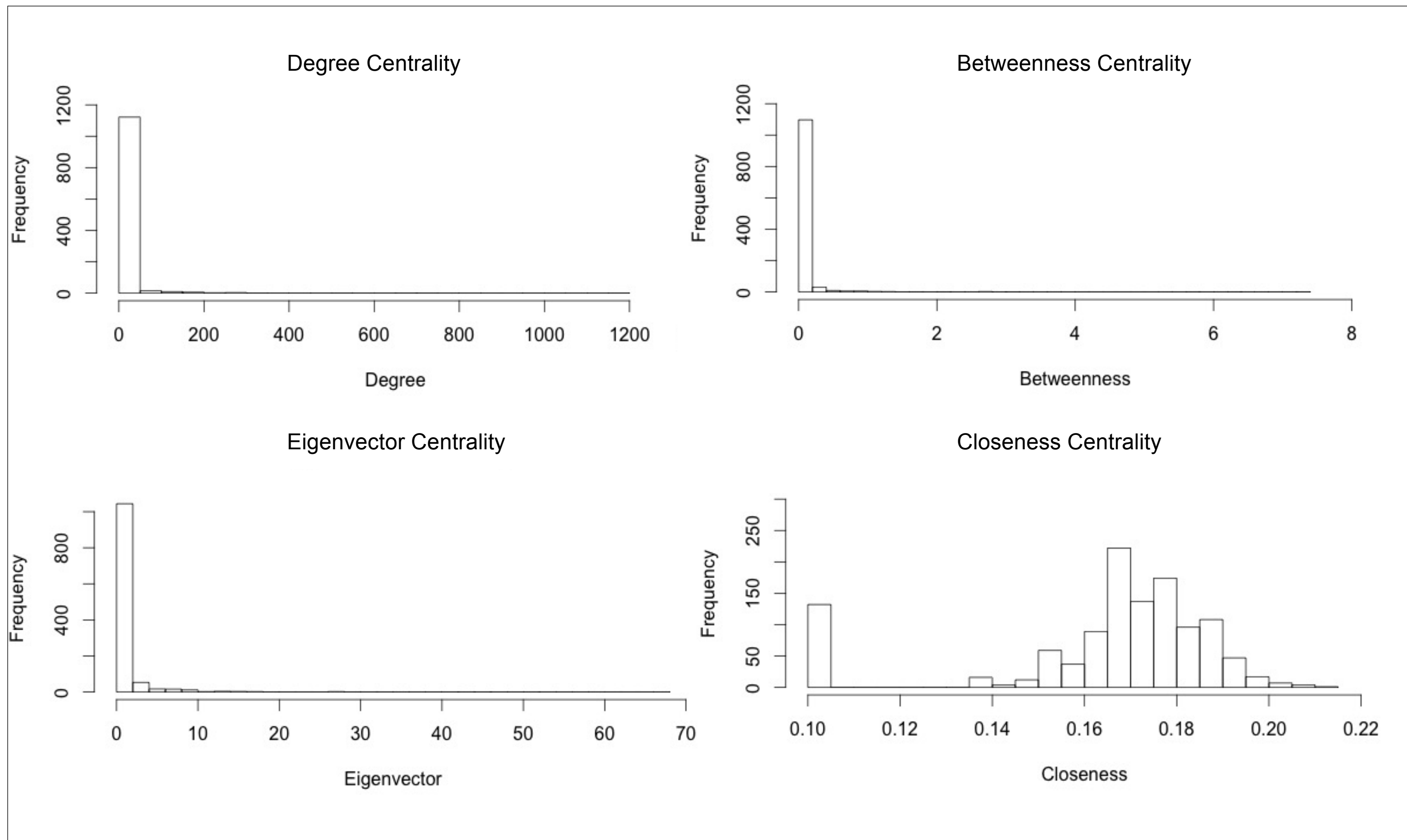


Figure 41. Centrality measures (5 January 2011–13 January 2011)

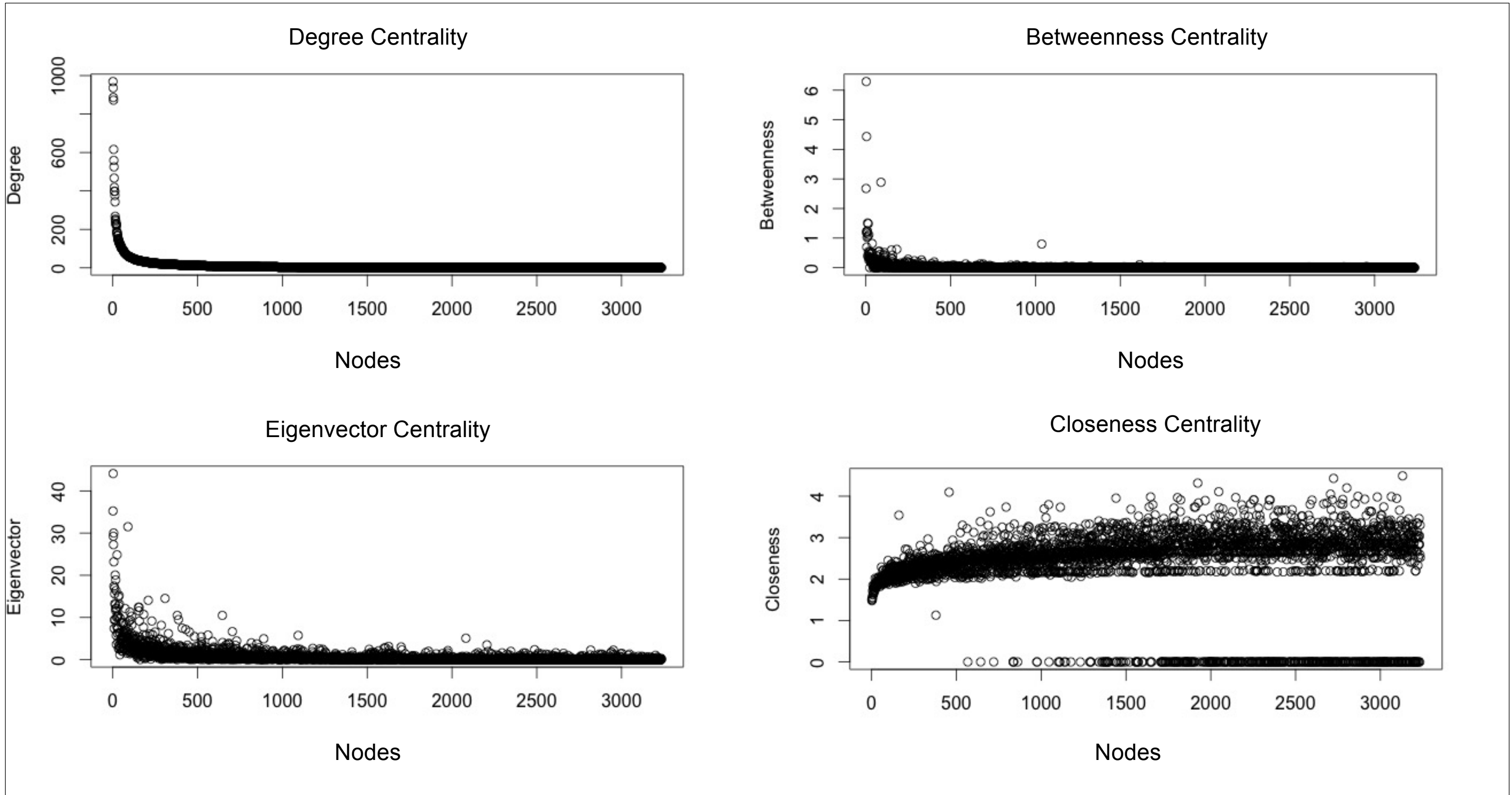


Figure 42. Centrality distributions (5 January 2011–13 January 2011)

Finally, the last centrality correlation profile corresponds to the network corresponding to 14 January 2011, the day that Ben Ali's regime fell. Table 33 shows the result of the correlations between pairs of centralities.

	Degree	Betw.	Eigen.	Clos.
Degree	*	0.90041647	0.75261405	0.02301942
Betw.	0.9004164	*	0.79128330	0.00957013
Eigen.	0.7526140	0.79128330	*	0.07302351
Clos.	0.0230194	0.00957013	0.07302351	*

Table 33. Centrality correlation profile (4 January 2011)

This centrality correlation profile presents a similar correltion between centralities than in the previous networls: there is a high correlation between degree, betweenness and eigenvector centrality, and a lower correlation, almost inexistent, between the closeness centrality and the other measures. The highest correlation is between degree centrality and betweenness centrality (r=0.90). The next highest correlation is between betwwenness centrality and eigenvector centrality (r=0.79), followed by degree and eigenvector (r=0.75).

Lastly, Figure 43 shows scatterplots for the centrality correlation profile of the second network (14 January 2011). Figures 44 and 45 show the histogram and the distribution of the centrality measures of the first network (14 January 2011).

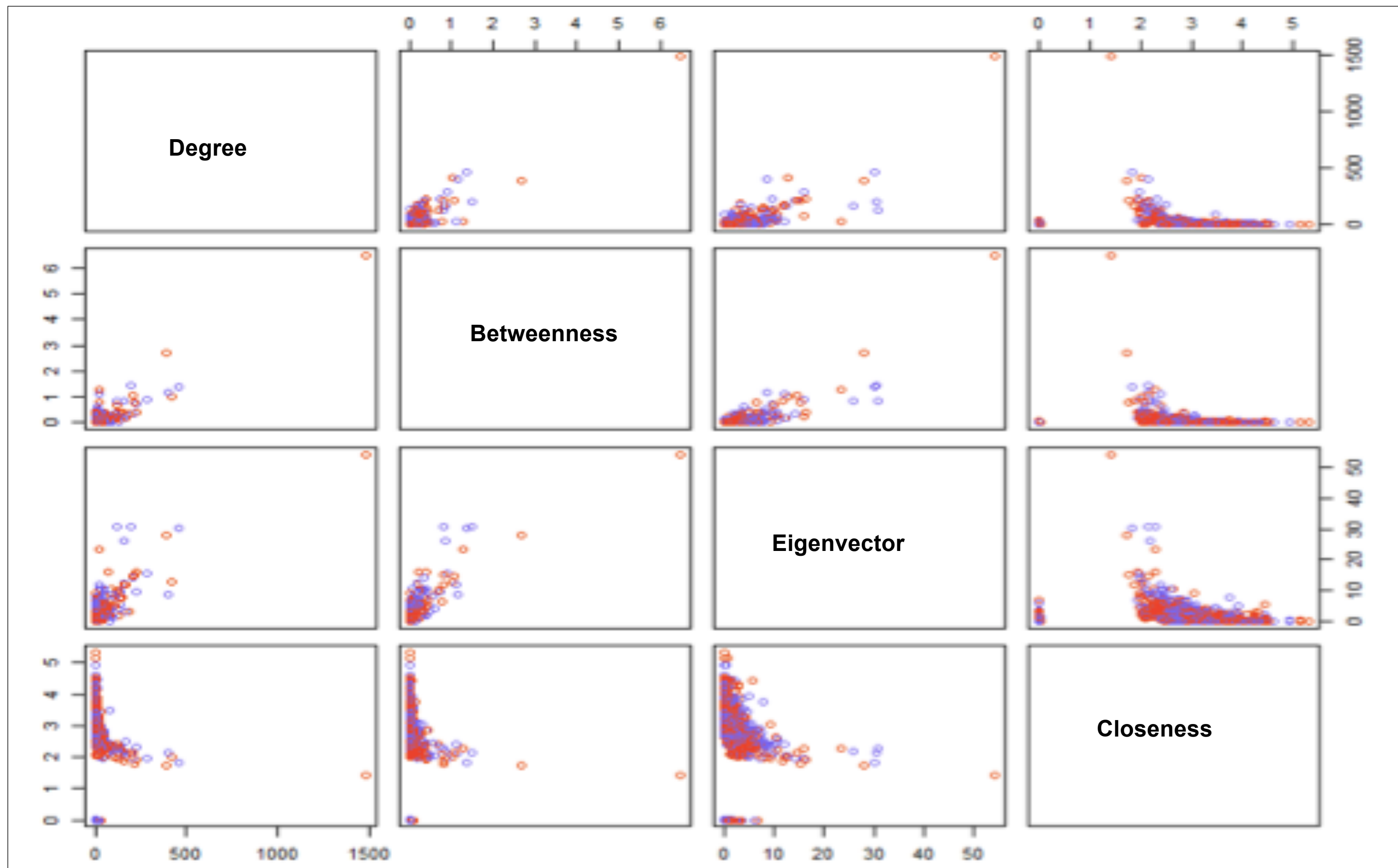


Figure 43. Centrality profile correlation (14 January 2011)

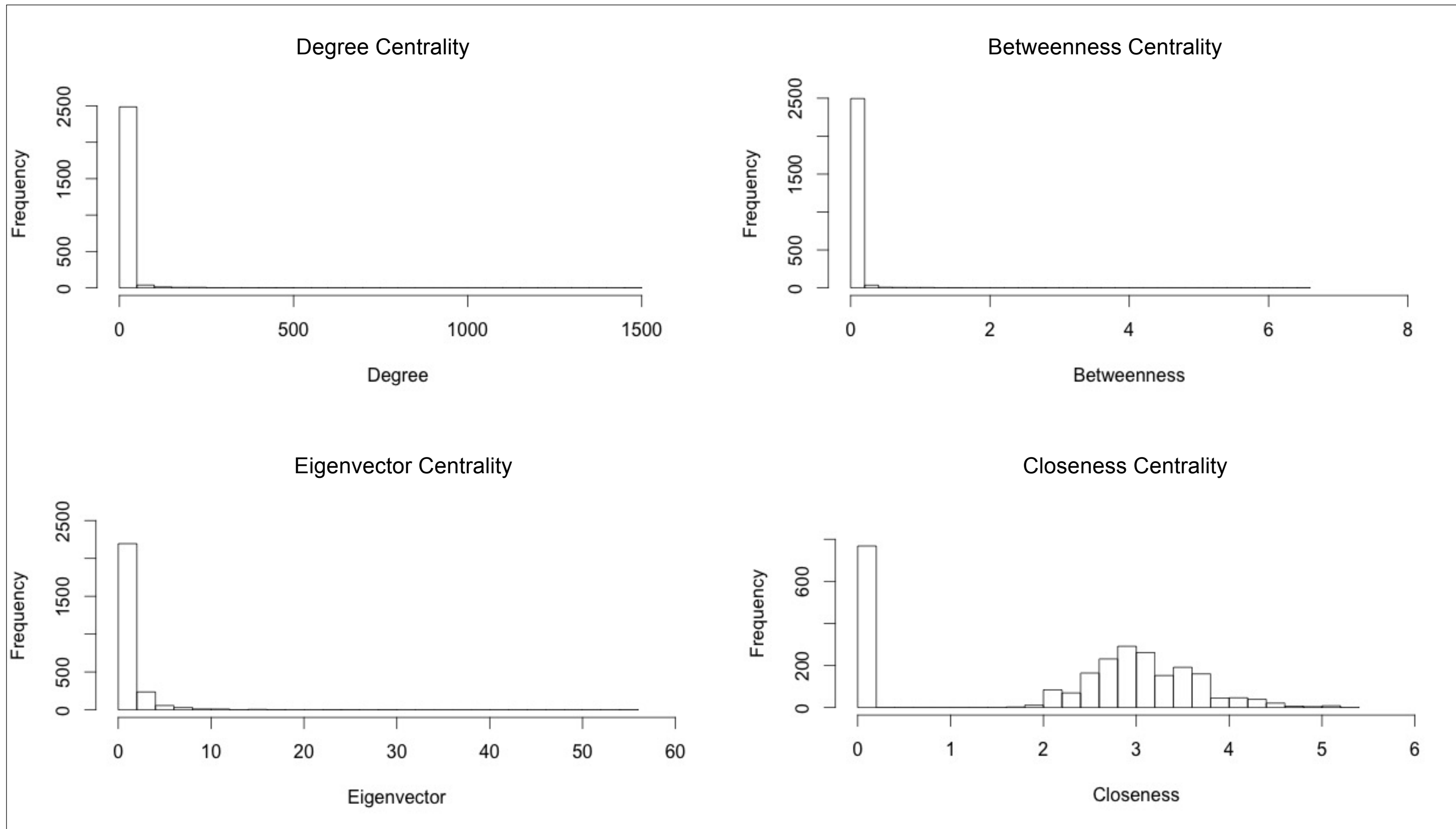


Figure 44. Centrality measures (14 January 2011)

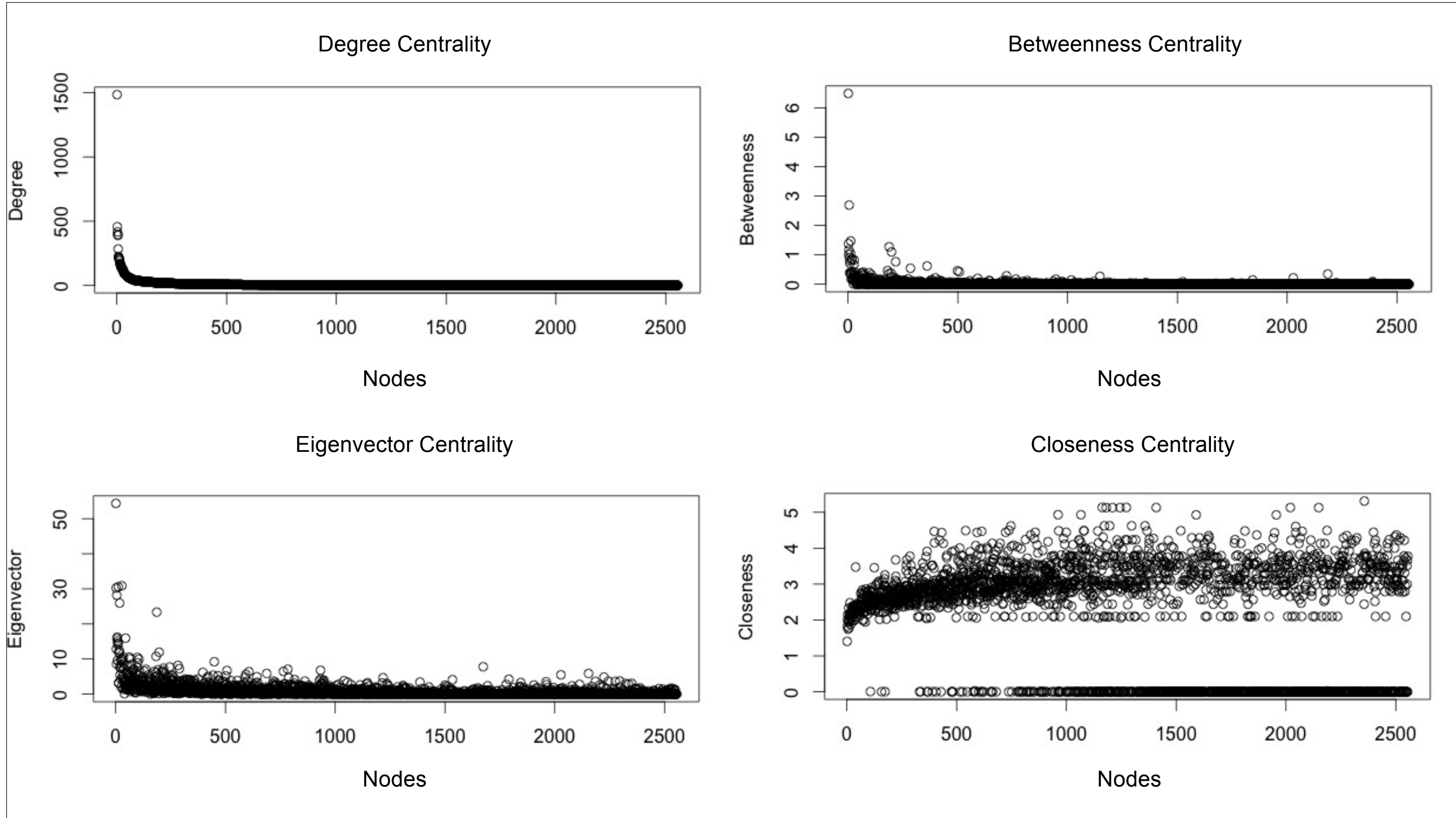


Figure 45. Centrality distributions (14 January 2011)

The distributions in the four networks reveal a resemblance between them. The distribution for a closeness centrality is similar to a normal curve distribution, while the distribution of the other centrality measures is a decreasing function, resembling a power-law distribution. This result indicates that there are a few nodes which manage much information, and many nodes that manage less information; the network is dominated by few very central nodes. If these nodes are removed or damaged, the network quickly fragments into unconnected sub-networks. Hubs are those actors adjacent to many peripheral actors (Wasserman and Faust, 1994, p. 209), and they act as a soft leaders (Gerbaudo, 2012, 2013): through the messages, the suggestions and instructions they disseminate, they shape the way in which movements assemble in public space. Nodes with high degree and betweenness centrality are called hubs. The power law has been interpreted by Ravasz and Barabasi (2003) as the evidence for presence of hierarchical architecture in the network. According to the authors, the presence of a hierarchical architecture reinterprets the role of the hubs in complex networks. Hubs, the highly connected nodes at the tail of the power-law distribution, are known to play a key role in keeping complex networks together and in dispersing the information. The hubs play the role of bridging the many small communities of clusters into an integrated network.

5.2.2 The visible phase of the movement: Framing the Arab Spring in Tunisia through the Twitter network

This section presents a detailed analysis of how the Arab Spring in Tunisia was portrayed by users on Twitter. Furthermore, we have combined the qualitative content analysis results with the interviews findings, providing a description of the uprising and identifying themes and patterns.

Mohamed Bouazizi, a symbol of the revolution

As Lim has reported (2013), immediately the images which showed Bouazizi's desperate act of public self-immolation on 17 December 2010 spread across Tunisia and ignited the 2010–2011 Tunisian uprising, that is, the so-called Arab Spring. In light of this, and following Sidney Tarrow (2011, p. 45), we can say that death can be a source of collective action. It has the power to trigger violent emotions and bring people together who have little in common other than their solidarity in grief.

The images of Bouazizi's self-immolation, and their quickly diffusion, showed Sidi Bouzid's contentious politics from the beginning. Images of Bouazizi's burning body were quickly spread through social media. Specifically, Chadi Neji (@Chady2009), a Tunisian youth, distributed on Twitter the link which contained a video from Al-Jazeera with images of Bouazizi's self-immolation and the protests in Sidi Bouzid (See Figure 46). It was the first time that the hashtag #sidibouzid was used.

> [@Chady2009 18 Dec 2010] الانتحار يحاول شاب..الخبزة اجل من...
> *https://www.facebook.com/video/video.php?v=13243353015 1270 #sidibouzid @t_kahlaoui behi?*

Figure 46. Al-Jazeera video about protest in Sidi Bouzid

The protests would have had little impact if they were not spread across Tunisia and beyond. In general, for contentious politics to transform into a successful social movement, they need to be adopted by citizens and to be spread by them (Lim, 2013, p. 928). The interviews demonstrated that, in the case of the Tunisian uprising, the convergence between online and offline networks to create a cycle of contentious politics and collective action was crucial. As Interviewee 2 pointed out, uprisings and revolutions are certainly possible without the use of digital media, because we have historical evidence of many cases in which revolutions and protests were organised without digital media. But in the case of the Arab Spring, the speed of the circulation of what was happening in Sidi Bouzid is hard to explain without the presence of digital media and internet infrastructure:

> When I heard about the self-immolation by fire of Mohammed Bouazizi I was in Tunisia, so I started to follow was going on, and I started to post the states on Facebook, Twitter, and two days after I posted my first text on the blog. (Interviewee 1)
> I was with a friend at my place that day when I did get to my room to check stuff in my computer and them popped up in the living room and told my friends that someone in Sidi Bouzid did set himself in fire. They did not notice much, but I did have the same feeling back in 2008 with the events of Gafsa. (Interviewee 4)

However, as Interviewee 3 relates, in the case of Bouazizi's self-immolation, the pre-existing contacts between activists in Tunis and people from Sidi Bouzid was important:

> [I heard about the self-immolation] from people from Sidi Bouzid. Because the family of Mohammed Bouazizi—his name is Tariq actually, not Mohammed, as everybody thinks—six months before, the family and other people from Sidi Bouzid came to Tunis and spoke with association *Liberté & Equité* and they reported about the land stolen by Trabelsi family with the complicity of […] National Agriculture Bank. (Interviewee 3)

As we have noted in Chapter 4, Section 4.2, in Tunisia there were 334 documented suicides between 2007 and 2010, most of them completed by young people. According to Interviewee 3, what was different in the case of Sidi Bouzid was the fact that the suicide of Bouazizi was not about one person; the suicide of Bouazizi symbolised the grievances of the whole town of Sidi Bouzid:

> People who lost their land and their own son's burned himself. That's why it made like a big explosion. It's not

> because one person, it was like because they were already attacked on their own land by the [Trabelsi] family. Before Mohammed, there were other people who were burning themselves, but it wasn't a big thing because it was more like for individual. For the case of Mohammed, it's because the whole town was in very bad situation, losing their land because of Trabelsi, and that's why the whole town exploded. (Interviewee 3)

Another important moments related to Bouazizi's suicide was the day of his funeral. Bouazizi did not die when the self-immolation happened; rather, he died almost three weeks later, on 4 January 2010. The day after, on 5 January 2010, the funeral took place, and Nawaat spread among Twitter and YouTube the images presented in Figure 47.

Figure 47. Mohamed Bouazizi's funeral

[@nawaat 5 Jan 2010] *video: Funeral of Mohamed Bouazizi* جنازة محمد البوعزيزي #sidibouzid *http://post.ly/1RBVU*

Bouazizi became a symbol of the revolution. On January 14th, when Ben Ali's regime fell, most users remembered the act of Bouazizi, even identifying Bouazizi as a leader of the revolution:

[@nawaat 14 Jan 2011] *GOG BLESS MOHAMED BOUAZIZI, HE IS OUR LEADER #sidibouzid*
[@monaeltahawy 14 Jan 2011] *Goosebumps! Elation! Dancing! Euphoria! Thank you, #Tunisians! Mohamed #Bouazizi you did not die in vain! #JasminRevolt #Sidibouzid*
[@weddady 14 Jan 2011] '*ALL STARTED WITH ONE MAN: MOHAMED BOUAZIZI #sidibouzid'*
[@SanjyP 14 Jan 2011] *'Bouazizi you are a hero, the people of Tunisia have won.' #sidibouzid*

Although Bouazizi's self-immolation ignited the uprising in Tunisia, and he became the symbol of the revolution, it was not the only suicide that took place during the revolution. Users on Twitter also report these acts:

[@Bard__ 22 Dec 2010] *Deuxième suicide d'un jeune de 25ans en moins d'une semaine!! l'heure est grave! #Sidibouzid #Tunisie*
[@ifikra 22 Dec 2010] *VERY SAD! a second suicide in front of a government building in #sidibouzid today, the situation is getting very serious http://is.gd/jfBy8*
[@BloggerSeif 8 Jan 2011] *RT @AmmarMa: A new suicide attempt in #SidiBouzid a married man, father of 4 children unemployed, in hospital, non lethal burn injuries*

> [@dima_khatib 8 Jan 2011] *Day 23 of Tunisian Uprising. Fresh round of protests in several cities. New attempted suicides. Police crack-down continues. #SidiBouzid*
> [(@walidsa3d 8 Jan 2011] *Protest by Suicide Highlights Economic and Political Oppression in #Tunisia #sidibouzid http://tinyurl.com/36gr8zh*

Social justice and the 'unemployment protests'

As we have noted in Chapter 3, Section 3.6, the injustice frame emphasises moral outrage, the significance of a problem or the injustices that are being done. This frame is essential for rebellion against authority (Gamson et al., 1982). The use of the injustice frame during the Arab Spring in Tunisia focusses mainly on unemployment. With unemployment officially standing at 15% nationwide, but estimated at over 40% for the youth (Perkins, 2014, p. 218), as we have noted in Chapter 2, the prospects for the situation's improvement were unclear. On 22 December 2010, five days after the uprising started, the account @TunObs explained that the spark of the riots was a consequence of the high rate of unemployment:

> [@TunObs 22 Dec 2010] *#Tunisia: High unemployment sparks Tunisian riot http://tiny.cc/kprhe #SidiBouzid*

On December 23rd, Nawaat shared a link to an article published in Los Angeles Times with the same idea:

> [@Nawaat23 Dec 2010] *RT @malekk @ka33boura #TUNISIA: Suicide triggers youth protests against unemployment L.A Times http://lat.ms/g9d20T #sidibouzid*

However, @TunObs and @Nawaat were not the only ones that linked the riots with the high rate of unemployment:

> [@dima_khatib 27 Dec 2010] *Demonstrations continue in #Tunisia and spread North to the capital, and South to other cities. Unemployment is intolerable. #SidiBouzid*
> [@nawaat 25 Dec 2010] *Chômage, précarité, sentiment de marginalisation : 'Nous avons confiance en l'Etat, pas en les individus' http://nawaat.org/portail/2010/12/25/chomage-precarite-sentiment-de-marginalisation-les-jeunes-parlent-%c2%ab-nous-avons-confiance-en-l%e2%80%99etat-pas-en-les-individus-%c2%bb/ … #sidibouzid*
> [@dominiquerdr 30 Dec 2010] *RT @EANewsFeed: Tunisia: Escalating Protests over Unemployment http://tinyurl.com/342gsga #Sidibouzid*

On January 9th young people from Thala, Kasserine and Regueb, cities in the west and centre of Tunisia, carried out protests against their social situation and against unemployment. Finally, security forces confronted them and six people were killed in Kasserine, eight in Thala:

> [@marmite_news 9 Jan 2011] *Deadly unemployment protests hit Thala, western Tunisia [bbc] http://j.mp/e0fO5I #OpTunisia #Sidibouzid #FreePress*
> [@Sin2Go 9 Jan 2011] *Eight killed in #Tunisia unemployment protests http://bbc.in/ibp6rK #SidiBouzid @BBCWorld*
> [@Tunisianlibero 10 Jan 2011] *Fourteen killed in #Tunisia unemployment protests http://bbc.in/hQkULi #BBC #sidibouzid #OpTunisia #tunisia*

The rise of commodity prices, such as bread or fuel, was one of the triggers in the 2010–2011 Tunisian uprising. As can be seen from the Figure 48, protesters in Tunisia held loaves of bread during the demonstrations. According to the user @gFiras, who

published this photo on Twitter on 28 December 2010, the image is the *photo de l'aneé 2010* (the 2010 photo of the year).

Figure 48. Demonstration in Tunis

In Tunis, during the demonstration which took place on 14 January 2011, some of the revolutionary chants were demands related to this idea:

> [(@LiberateTunisia14 Jan 2011] *Protesters in Tunis on Jan 14, 2011. 'Bread and water is sufficient for us. NO to BEN ALI!' http://goo.gl/yZRth #SidiBouzid*
> [@alialhabibi, Jan. 14 2011] *'Tunis now: chants '"water and bread! Ben Ali Out!"' and '"Ben Ali out!"' #Tunisia #Sidibouzid #JasminRevolt'*

The presence of these demands illustrate that a central demand was for 'bread, freedom, and social justice'.

Protests in Tunisia and repression

From 17 December 2010 through 14 January 2011, a many demonstrations and riots took place across Tunisia against Ben Ali's regime. As noted previously, after the suicide attempt carried out by Mohammed Bouazizi, the riots started in Sidi Bouzid. Figure 49 shows the situation in Sidi Bouzid the day after his attempt.

Figure 49. Protest in Sidi Bouzid after Bouazizi's self-immolation

Tunisia lawyers called for demonstrations on 25 December 2010 in Sidi Bouzid. Three days after, on December 28th, almost 300 lawyers rallied in Tunis, in front of the Justice Palace, in support to Sidi Bouzid inhabitants. Figure 50 shows an image of this protest.

Figure 50. Demonstration of Tunisian lawyers

During this demonstration, two lawyers (Chokri Belaid and Abderrahmen Ayadi) were arrested, but were released the day after. On December 31st lawyers again showed their solidarity with Sidi Bouzid inhabitants, and this time the rallies were carried out in different cities of Tunisia. Lawyers were beaten and assaulted by the police. Nawaat spread three videos about the incidents:

> [@nawaat 31 Dec 2010] *Video: today police besieging lawyers in Tunis before assaulting them #sidibouzid http://post.ly/1Pi6k*
> [@nawaat 31 Dec 2010] *2n Video: today police besieging lawyers in Tunis before assaulting them #sidibouzid http://post.ly/1Pj1O*
> [@nawaat 31 Dec 2010] *3n Video: today Assault of police assaulting lawyers in Tunis #sidibouzid http://post.ly/1PkXT*

In response to the police attack, the Tunisian Bar Association announced a general strike. The strike took place on January 6th, and nearly 95% of Tunisia's 8,000 lawyers went on strike. Lina Ben Mhenni, one of the most influential Tunisian activist (as we have noted in Section 5.2.1), shared some photos of the lawyers strike, and she actually appeared with the lawyers in one photo (see Figure 51).

Figure 51. Lawyer's strike (6 January 2011, Tunis)

> [@benmhennilina 6 Jan 2011] *Photos de la grève des avocats http://on.fb.me/dRNbJ9 #sidibouzid*

The student union also protested against police repression and showed their support for Sidi Bouzid inhabitants. Nawaat shared a video about student protests against the police, as they had done with lawyers' strike on late December:

> [@nawaat 25 Dec 2010] *video: Tunisia - protests of the Students against the Police #sidibouzid http://post.ly/1Nr7N*
> [@Mtanwcha 9 Jan 2011] *The police's attacks against the students were numerous: BREAKING: Violent clashes between police and univ. students in Sussah. Police shoots a student in the leg with a live bullet. #Sidibouzid*
> [SBZ_news 10 Jan 2011] *The police forces are attacking the students in the Manar University Campus #sidibouzid*

> [SBZ_news 10 Jan 2011] *A Clash between the police and the students in the 9 April University #Tunis and the cops use the tear gas #sidibouzid*

The support of the lawyers was relevant to Tunisians, as was, to a lesser extent, the student support. According to Interviewee 2,

> In the case of Arab Spring, we see that a lead defection, so the defection of the urban elites and those who are economically well off, defecting from the authoritarian regimes were important moments. The social evidence and encouragement to do so happened through the public acts of resistance that were communicated by social media sites. In these ways, digital media were perhaps the most important new set of ingredients that we need to learn carefully to map onto older understanding of how revolution and political change have been organised previous to hyper-media systems (Interviewee 2).

Tunisians disseminated on Twitter a great amount of information about the protests. Figure 52 depicts different images of different protests which took place on January 14th in Sfax, Mahdia, Monastir and Tunis.

Figure 52. Protests across Tunisia

Relating to the protest repertory, during the Arab Spring in Tunisia, besides the traditional protests, that is, demonstrations and strikes, activists carried out flashmobs as a protest. A flashmob consists in a group of people who assemble suddenly in a public place and perform an unusual act, then quickly disperse. They are usually organised via social media or e-mail. Tunisian activists had already carried out flashmobs before the uprising in protest of the censorship, and an example of a flashmob in the midst of the uprising is one that took place in Tunis on December 28th in support of Sidi Bouzid.

Figure 53. Flashmob in Tunisia (28 December 2010)

Police repression was a constant during the uprising, not only among adults or young people, but also among children, and Twitter was used to share information about this repression. Again, they deployed images to illustrate that what was happening was a fundamental and very common practice:

> [@SBZ_news 9 Jan 2011]*Photo of Marwen JEMALI after been shot last night #SidiBouzid http://www.facebook.com/photo.php?fbid=130807443648676'*
> [@nawaat 10 Jan 2011] *video: kids and young people injured by police fire* فيديو: الطفال ضحايا إطلاق النار في القصرين *#sidibouzid http://post.ly/1SrNB*

The violence exerted by the police and security forces against demonstrators, resulting in many injuries and deaths, was documented on Twitter:

> [@ifikra 24 Dec 2010] *Tunisian police torture #children #sidibouzid (picture http://is.gd/jodPS) #humanrights*
> [@SBZ_news 11 Jan 2011] *A 75-year-old man and his wife were killed in the Ezzouhour area while they were going to bury their child #sidibouzid*
> [@SBZ_news, 12 Jan 2011] *today, a 14 years old child was killed in Sfax #sidibouzid*
> [@nawaat, 12 Jan 2011] *I uploaded a YouTube video -- #sidibouzid 14 year old child deadly shot in Sfax [vid … http://youtu.be/ptH8e1uTjwI?a*

One of the most important nodes in the task of disseminating videos was Nawaat. In total, since the uprising started 17 December2010 through 14 January 2011, they shared 168 videos. The videos showed protests and people injured or killed by the police. Figure 54 shows a screenshot of Nawaat's YouTube profile with some of these videos.

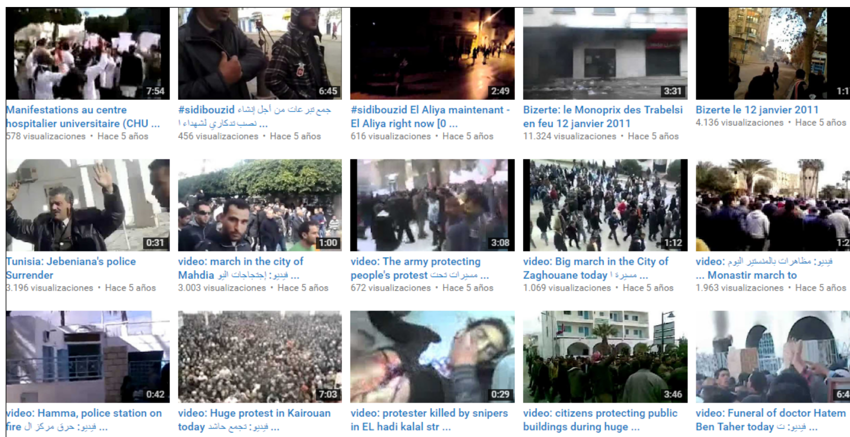


Figure 54. Videos about protests in Tunisia during the uprising (Nawaat's profile in YouTube)

According to Interviewee 1, when people had new information about a demonstration, they spread that information in the same way: by videos or photographs. So, the ones who had information shared it with others and tried to spread it. Interviewee 3 explained how the organisation and coordination among the activist groups managed the information about the uprising:

> There were not central person, there were many activists. It was all of us we were not like connected to each other, but all of us were. We had the same target: to denounce this regime. There was not like leader […] everybody all like, 'you do this, okay, I will do this too. There is something in my town'. For example, Lina [Ben Mhenni], I had a lot of contact with she, was really involved activist. She was using actually her real name […] I would never using my own name. I did not want that they catch me at all. (Interviewee 3)

As Interviewee 3 relates, bloggers and activists were targets. On January 6th, the government arrested bloggers and online activists, and people like El General, a political rapper, were also arrested. Two of the activists arrested were Slim Amamou (@slim404) and Azyz Amamyma (@Azyoz). As we have documented in Section 5.1, Slim Amamou is the recognised Tunisian activist who became and later resigned as Minister of Youth and Sport of the transitional government, in protest to the censorship of websites. Moreover, he was one of the organisers of the demonstration on 22 May 2010 against the censorship. Slim Amamou was arrested on January 6th around 1 pm, and at about 6 pm, Slim revealed the position of his phone on the FourSquare social network. This social network allows

users to report their locations using geolocation. According to this application, the position of Slim revealed that he was at the Ministry of Interior on Habib Bourguiba Avenue. Azyz Amami was another of the organisers of the May 22nd demonstration. During the uprising, Azyz also participated in the organisation of the protests, which took place in Tunis on December 25th, 27th and 30th, in front of the UGTT (Tunisian General Labour Union) building, and he was also arrested. Afterward, users on Twitter started to publish tweets demanding the freedom of the two bloggers, and, finally, on January 13th, the two bloggers were released from prison.

The censorship, a common practice in pre-revolutionary Tunisia was also present during the uprising:

> [@RamyRaoof 23 Dec 2010] *i guess because of there coverage to #SidiBouzid incidents RT @ifikra www.elaph.com completely blocked in #Tunisia since today! #censorship)*
> [@weddady 26 Dec 2010] *#Tunisia aggressively moving to block and censor facebook pages with info & videos on #sidibouzid protests. #censorship #netfreedom*
> [@smarmc 2 Jan 2011] *People in #Tunisia needing help bypassing #censorship should get in touch with hacktivists and internauts! #sidibouzid*
> [@MajalOrg 12 Jan 2011] *Tunisia: Censorship continues http://is.gd/nkQsne #sidibouzid*

But, finally, the regime of Ben Ali could not block access to social media totally. According to Interviewee 2, the role of the internet and digital media was complicated, but at least during the moment of the Arab Spring, state power became less centralised in controlling their social and political discussion environments. In order to control it, when the sites became sites

of political resistance, they had to do far more than simply control specific voices of resistance; they had to attack their own critical infrastructure, the internet, which connects global economies. More importantly, activities like economic transactions also take place through the internet. Furthermore, numerous digital media activities happen online, and the sharing of content that allows for media systems as traditionally understood. The state had to attack the architecture of internet by disconnecting vast portions of their economic activities in order to control the political and social organising that was happening based on that architecture (Interviewee 3), which meant that the censorship they sought also cost them.

Corruption in Tunisia: Ben Ali's regime and the Trabelsi family

Structural corruption was an endemic problem in Ben Ali's regime. As we have explained in Chapter 2, it constituted a structural opportunity, that is, the exogenous factors to the movement, and constituted the preconditions for promoting action. Our findings suggest that Tunisians distinguished between two forms of corruption: the corruption of the government and the corruption of the Trabelsi family. When we speak about Trabelsi family, we are referring to the relatives of Leila Trabelsi, the wife of Ben Ali.

Regarding the structural corruption of Ben Ali's government, as a tweet published on 13 January 2011 by @pierremangin, was 'the elephant in the room, the problem that everyone knows about but no one can publicly acknowledge'. @Ferjani9arwi, on 26 December 2010 pointed out the corruption that 'economic growth was in the positive for the last 7 years yet,

unemployment has gone up, why? Corruption tax! #sidibouzid #tunisia*'*.

Another important factor to link with the corruption was the effect that the Wikileaks revelation had on Tunisian, at least on Twitter. As @Houeida published on December 28, Wikileaks—or Tunileaks—transformed the myth of corruption into an absolute truth. As we have explained in Section 5.1.2, the cables of Wikileaks about Tunisia were published by Nawaat on November 28th, just a month before the uprising. As Interviewee 1 highlights, Tunisians already knew about the stories released by Tunileaks, but what was important in this revelation was to have the proof, to have real documents. According to Interviewee 4, the rumours of corruption turned out to be true.

Corruption also spread among Ben Ali's wife, Leila Trabelsi, and her family. Leila was widely named as *la régente du Carthague,* for her extravagant and public life. Perhaps the most graphic example of such extravagance was the lavish Hammamet home of Sakhr al-Materi, Ben Ali's son-in-law. In the Wikileaks cables, the United States ambassador, after dinner with al-Materi in this house, described the house as a zoo, including a pet tiger. @Moez_TN, on January 13th, published the Wikileaks cable containing this information from the United States ambassador:

> [@Moez_TN 13 Jan 2011*] Description de la maison d'El Materi par un cable #Wikileaks fait penser à celle d'un traficant de drogue http://bit.ly/fF91h4 #sidibouzid*

But the most interesting revelation about the corruption is related with the self-immolation of Bouazizi. Since the news of Bouazizi's gesture spread first through by word of mouth, activists in Tunis noticed Bouazizi's suicide attempt because

they were in touch with people from Sidi Bouazid, from which people came to Tunis to speak with the association Liberté & Equité because the Trabelsi family, with the support of the National Bank of Agriculture, was confiscating their lands. Following Interviewee 3, the act of Bouazizi, which became the most iconic event of the revolution, was not about one person, but was about a whole town. And it was about the endemic corruption which was taking place in Tunisia, represented, on the one hand, by the government, thus, the National Bank of Agriculture, and, on the other hand, by Ben Ali's relatives, that is, the Trabelsi clan.

The role of news media and social media during the uprising

From our findings, we derive a sense of the importance that the media coverage had for activists during the uprising. In an authoritarian regime, as Tunisia in 2010 was, the freedom of press was restricted, and many media were controlled by the regime. Consequently, it seems normal that at first the Tunisian media did not cover the riots. @Emnabenjemaa, a journalist from Tunisia who had been arrested in 2010, was one of the first Tunisian journalists to talk about the uprising on ExpressFM, a Tunisian private radio station specialising in the economic situation in Tunisia, founded in October 2010. During the 27 days of the Tunisian uprising, some activists, such as @Houeida or @Slim404, collaborated with the radio, a part of @Emnabenjemaa.

The most important foreign media during the uprising was Al-Jazeera. Al-Jazeera played an important role in disseminating information. Although Al-Jazeera was banned from Tunisia, and they were not allowed to send journalists to the region, the

main task of Al-Jazeera was to broadcast citizens; videos, like the videos referenced in Section 8.3.3. On December 28th, in a national television broadcast, Ben Ali accused to Al-Jazeera of exaggerating the protests. Al-Jazeera had been launched a citizen journalism portal in 2008 called *Sharek* where citizens sent their images and videos. The existence of this portal and, by extension of Al-Jazeera channel, was important because of the repressive media environment in Tunisia during the rule of Ben Ali.

According to Interviewee 2, it is difficult to separate or create a distinction between Al-Jazeera and digital media spaces

> because Al-Jazeera is an organisation, as a media organisation, is one of the more cutting-edge traditional broadcast news organisations that is becoming very, very digitally mediated and hyper-mediated. By that what I mean is much of the everyday activities of the organisation take place heavily on, and also rely on, by sourcing social media activities and communications that happen on places like Twitter or Facebook. You can find a good number of Al-Jazeera content that relies primarily on social media activities that it reports on. (Interviewee 2)

About the role of social media during the uprising, the findings from Interviewee 1 suggest that the role played by internet has been exaggerated:

> Internet is the tool. When we talk about a Facebook revolution is a mistake, because we don't have to forget, first of all, it didn't start on Facebook, started with the self-immolation by fire of Mohammed Bouazizi, and those young people who identify themselves to Mohammed Bouazizi and started to demonstrate in Sidi Bouzid and so on. So there are people who died and people who were

> bounded, so we don't to forget those people die have started that revolution. (Interviewee 1)

Interviewee 2 maintains that uprisings and revolutions are possible without the use of digital media, but in the specific case of the Arab Spring,

> The speed and the breadth and the surprising anomaly of such a transnational moment is hard to explain without the presence of digital media and critical internet infrastructure. I think it will become unlikely for us to see revolutions and protests organised without somehow activists addressing the utility and the risks of online communications spaces which we're also seeing state powers become more aware of and become more focused on gaining their state power over. (Interviewee 2)

According to Interviewee 3, the difference between the coverage in traditional media and the images that people shared on social media was that on social media people showed the reality of what was happening in Tunisia. On the other hand, the media gave a different version of the reality:

> we had an agora to speak, like to spread the videos… to speak about what happened. The media were giving a version of the story of the reality. Social media bring the stories of people in their towns, in their faces. We see something on television, and people were saying other thing on social media. The mainstream media lost all their credibility because the images of people on social media were more powerful, and it wasn't professional videos […] if we didn't have this, people could deny 'no, it's not true, it can't be real'. There are some people who say 'No, we could have a revolution without Facebook'. I don't think so. I

> think Facebook and social media were very powerful (Interviewee 3).

The Tunisia uprising: The international focus

In the case of the Arab Spring more broadly, what started in Tunisia rapidly moved into Egypt and then cascaded into neighbouring countries. Inspired by the uprising in Tunisia, protests began in Egypt on 25 January 2011 and ran for 18 days. Before this inception, on January 14th, there were messages to encourage Egyptians to start their own revolution:

> [@anonymous_de 14 Jan 2011] *Rumors say revolution in Egypt is being prepared. We love it! Fight for your freedom! #Tunisie #SidiBouzid #OpTunisia #Egypt*
> [@seifon 14 Jan 2011] *Bientôt la meme chose en Egypte croyez moi #sidibouzid*
> [@Khamousss 14 Jan 2011] *Egyptiens freres Moubarak est le prochain! #sidibouzid*

However, according to Interviewee 3, the context of Egypt was different from the context of pre-revolutionary Tunisia:

> In Egypt they could speak about what happen in their country even before 2011. They have demonstrations, they have television. I was in Egypt before 2011 and I saw people doing demonstrations in the street. I was saying 'Wow, they can do it'. There were some programs on the television, and they were speaking about the regime and attacking the regime. In Tunisia it was impossible. Sometimes people compared things completely different, with different factors and different contexts. (Interviewee 3)

But the collaboration among Tunisian and Egyptian bloggers went beyond the 2010–2011 uprising; it began before. According to Interviewee 1, Egyptian and Tunisian bloggers worked sometimes. Thus, according to Interviewee 1 'when something happened in Egypt, for example. When Egyptian bloggers started the campaign for freedom of speech or the campaign for support opinion prisoners, we used to try to help them'.

Comparing the outcomes of the Tunisian and Egyptian uprisings, Interviewee 2 explains that

> Tunisian is certainly one of the more optimistic and stable examples of the right direction to move in comparison of the case of Egypt where, for example, we saw very little democratic change happening. This is an issue of time and expectations. The real institution changes that need to happen can't only happen through web-based conversations and collaborations. (Interviewee 2)

Another important international issue concerned Western support of Ben Ali and the lack of coverage of the Tunisian uprising by Western media:

> [@Zeinobia 24 Dec 2010] *Dear Western media why do not look to what is happening in Tunisia !!? #sidibouzid*
> [@ifikra 24 Dec 2010] *#Tunisia is not #Iran! #sidibouzid is not #tiananmen!! RT @Zeinobia Dear Western media why do not look to what's happening in Tunisia !!?*
> [@3arabawy 28 Dec 2010] *Ben Ali was hailed in the West as a liberal, pro women reformer. He is nothing but a brutal dictator. #sidibouzid*
> [@3arabawy, Dec. 28 2010] *our dictators r always praised in the West as 'moderates'. Moderates my ass. #sidibouzid*
> [@ahmadfahmy 28 Dec 2010] *Protests have been going on in #Tunisia for 12 days now and no mention in western*

media???!!!! #sidibouzid

[@antissa 12 Jan 2011] *Arabs are used to double standard from West gov'ts and know they're alone in struggle for human rights and dignity. #Tunisia #sidibouzid*

[@ibnkafka 14 Jan 2011] *All these Western media outlets covering Tunisia now - what a bunch of wankers, couldn't be bothered just a few days ago #sidibouzid*

5.2.3 Beyond the Arab Spring: Some final remarks

Although our study covers digital activism in Tunisia in 2010–2011, in order to provide some remarks about what the uprising meant for Tunisia, our interviewees were asked about the situation in Tunisia after the revolution.

Speaking of the Tunisian uprising itself, Interviewee 2 noted

> It's been one of the more positive experiences, although clearly not an easy experience. Rebuilding a state and a governance of a country is not a small task. Those whose had their expectations that the digital media revolution would be easy and quick, I think, perhaps, had misplaced their levels of expectations [...] At the very least we have to be both patient and critically focussed on the kinds of institutions and practices that will create a sustainable democratic government system in Tunisia. (Interviewee 2)

However, Interviewee 1, who is a Tunisian activist, articulated a more pessimistic point of view about change in Tunisia:

> I don't think the change we have expected is happening. It's true that in comparison to other countries, like Syria or Libya or Yemen, the situation is pretty good, and we can talk about the success of the Tunisian revolution. But, as a person who knows the country before, after, and

> during the revolution, and as person who took part in the events, I think that we have failed […] People take the street and they are asking for employment, for freedoms and for social justice. Maybe peoples around the world started to understand the seriousness of the situation after the Bardo attack, but we have political assassinations, we have many terrorist attacks targeting authorities forces, military security forces, but the world thought that everything is okay in Tunisia until the Bardo's attack. The situation is not really what we have expected. (Interviewee 1)

By contrast Interviewee 3, who is also a Tunisian activist, thought that change is happening in Tunisia after the revolution:

> Some people will say, 'No. We did not have anything out of it because of this revolution'. It's not ever a revolution. In 2011, a lot of people start discovering Tunisia. 'No, really? […] In Gafsa people were killed just in 2008, what I don't hear about it? Why not? People are discover, they can't imagine that people [in Tunisia] are so poor. Everything like that. People did not know anything […] now people speak freely attacking everything, denounced. Now they can and they do it. More than this, we have the constitution. It's not just a paper, it was a process […] one time last year it was a demonstration in the south of Tunisia and a guy was taking videos. Somebody told him to not take videos. The guy started screaming saying 'It's my right in the constitution. Article 32'. So people now in the street know the number of the article in the constitution, it's not just a paper. (Interviewee 3)

The last question was related to the role of activists. Interviewees were asked about what role they think activist have to play in the new Tunisian political context. For Interviewee 1, activists need to play the role of watchdogs:

> To be vigilant and try to react whenever have to react. Actually they did that with the first transitional government, but unfortunately what is happening today is to go back the situation under the regime of Ben Ali, because people are so afraid of Islamists, of terrorism. They got a part of government, a mix of ideologies, including people from the regime of Ben Ali. Now they are to try to go back to the old practice from the regime of Ben Ali, and now they are to try to go back to the old practices of the old regime. I give you a concrete example. Now there is a big debate in Tunisia because the government want to protect the security forces, but is a law that attack freedom of speech, freedom of journalism… (Interviewee 1)

Interviewee 2, however, showed more optimism about the role of activists:

> I think there's no shortage of opportunities for those skilful and connected to online spaces that they can play an important moments in period of transition […] one of the good examples we saw coming out of Tunisia was the crowd-sourcing of the Tunisian constitution writing, where web-based activists were promoting informed concerns that they wanted addressed and heard and, perhaps, institutionalized in the new constitution framework. This was happening primarily through web-based conversations and monitoring the governance activities and decision-making. In terms of making governance more transparent, more open, and more responsive is certainly

> possible to do online, but need not be limited to online activity. It is merely a very important opportunity insight to push towards this form of reformation. (Interviewee 2)

To conclude, as Interviewee 4 explained, in the new Tunisian context, the role of online activists would be become more and more important, from bloggers to journalists to advocacy. Because, as he says ‘it’s the essence of this country, and they won’t stop doing it’.

CHAPTER 6

Discussion & Conclusion

6. Discussion & Conclusion

6.1 Discussion

The primary purpose of this thesis is to examine the digital network in Tunisia before and during the 2010–2011 uprising. Earlier research (Bennet & Segerberg, 2012, 2013) has proposed the logic of connective action as the logic underlies recent movements which are characterised by the use of digital platforms. The main thesis behind Bennet and Segerberg's conception of connective action is that within connective action 'the communication network becomes the organizational form of political action' (Bennet & Segerberg, 2012, p. 745), and thus, social media are expected to play a crucial role by allowing large-scale mobilisation processes to occur without involving formal organisations (Anduiza et al., 2014, p. 753).

Our findings show that the use of social media was more relevant in the latent phase of the movement than during the uprising. The latent phase of the movement comprises the months leading up to 17 December 2010, when Mohammed Bouazizi set himself on fire and the Arab Spring started. The main objective of this phase was to mobilise against censorship. As such, social media became a crucial tool which allowed activists to spread their messages and organise themselves. Furthermore, social media was used as a tool for mobilisation.

The main example of this phase that our findings have identified is the case of 22 May 2010: Although the demonstration was ultimately forbidden by Ben Ali's regime, activists finally took to Habib Bourgiuba Avenue, the main street in Tunis, with their white t-shirts. It was the first time that activists decided to leave their computer screens and online campaigns and organise protests on the ground against censorship and freedom of speech.

During the visible phase, that is, the uprising which started with Bouazizi's act, digital media was crucial, as Lim has noted (2013), but in the following days the use of these technologies with the mobilisation on the streets were the key factors for the success of the uprising.

The use of personalised action framing and the role of digital media distinguished these networks from more conventional collective action. This personalisation leads to necessarily relaxed relations with other organisations in the network due to mutual requirements to put harder-edged demands and issue frames in the background (Bennet & Segerberg, 2013, p. 148). The main example of this personification can be found in the latent phase. The personification of the censoring in an imaginary person, *Ammar404*, thus *the other*, requires the construction of a *we*, that is, requires the construction of a collective identity. This construction accords with Lorenzo Coretti's (2015) claim that the pre-condition of any networked movement is the construction and identification with a collective identity. Furthermore collective identity develops on different levels: symbolic, cognitive, and emotional (Melucci, 1995). Around this collective identity actors build interpretations of the worlds, common values and mutual solidarity (Coretti, 2015, p. 953). Our findings show that the aggregation of these three

levels around Mohamed Bouazizi's self-immolation contributed to the spread of the Tunisian uprising just a few hours later.

However, as Castells argues (2015), these movements do not arise spontaneously. In his own words, 'there were other symbolic suicides and attempted suicides that fed the anger and stimulated the courage of youth. In a few days, demonstrations started spontaneously around the country, beginning in the provinces and then spreading to the capital' (Castells, 2015, p. 22). Such suicides were a common practice among young Tunisians, and were thus not symbolic suicides. What was relevant in the case of Bouazizi, according to our findings, is the fact that there was an offline network between activist in Tunis and people from Sidi Bouzid who had suffered the tyranny of Ben Ali's regime. Moreover, according to our interviews, the suicide of Mohamed Bouazizi was not about an individual person; it represented to a collectivity. The suicide of Bouazizi has a background of social injustice. In that respect, our findings are in line with the idea of Benjamin Tejerina et al., (2013, p. 380), who argue that the diffusion of global neoliberal capitalism and its impact around the world has concatenated social contestation which has been articulated in regional, local, social, and political contexts. According to Melucci (1989, p. 73), we can argue that this type of action requires an analysis that recognises the plurality of operative factors and does not simply assume that the movement is a given 'entity' which appeared spontaneously without coordination or organisation. The existence of the offline network and the digital network that activists were building years before the uprising indicate that the uprising was not spontaneous.

Castells argues that these movements are based on horizontal networks (2015, p. 7). Our analyses of five networks in different movements, suggest that the movement was not based on

horizontal networks, however. The power-law distribution presented in the five networks analysed show that few nodes managed much information, and many nodes managed less information. Moreover, reciprocity shows low values in the five cases, indicating that the networks tend to share a hierarchical structure. This result suggests the presence of soft leaders (Gerbaudo, 2012) who make use of social media to, in the Gerbaudo's own words, 'make use of social media for choreographing and constructing choreography of assembly' (2012, p. 139). The choreography of assembly means 'the use of social media in directing people towards specific protest events, in providing participants with suggestions and instructions about how to act, and in the construction of an emotional narration to sustain their coming together in the public space' (Gerbaudo, 2012, p. 12). Our findings strongly support this idea. In our case study, activists played this role before and during the uprising.

Finally, according to Cammaerts (2012), we can describe the social media in terms of a duality. On one level, social media are material objects. That means that they are technologies of the everyday (Silverstone, 2002, Livingstone, 2007). On a symbolic level, though, social media is also a discursive tool. Taking the Gramsci's concept of war of position, social media are useful in an ideological way, since ideological war of position means the struggle to gain position or influence that can develop in counter-hegemony. Our findings concerning the use of social media by activists provides a good example of this war of position.

6.2 Conclusion

Digitally networked action has emerged in recent years among young people who have discovered in the internet and, specifically, in social media, a powerful tool to mobilise against social injustice and regimes which have exerted oppression on citizens. The aim of this study was to link social movement studies and media and communication studies in order to achieve a better understanding of the digitally networked action. Since 2010, when the Arab Spring started in Tunisia, a wave of protests has risen around the world: the so-called Arab Spring in the Arab countries, the *Indignados* movement in Spain, the Occupy movements which took place first in the United States and then in the United Kingdom, and so on. These different protests have a common characteristic: most of the participants in these movements were young people, at least in the first stage. Protesters fought against a system perceived by them to be socially unjust. Due to this perception, each country and, consequently, each movement, has its own context (e.g., Arab countries were under authoritarian regimes and the Western countries were not), this study focussed on digital activism before and during the Arab Spring in Tunisia. Thus, the conclusions presented in this chapter can be applied only to our case study.

One of the most significant contributions of this project, which is directly linked by the main purpose of this dissertation, has been the development of a conceptual framework that integrates the political opportunity structure approach and the logics of contentious action with the concept of mediation. Through this approach, we have structured theories from different sociological, communications and media studies and explained

how these theories can be used to enhance understandings of contemporary social movements. It follows that the findings of this study help to understanding how Tunisian digital activists used digital platforms to mobilise and organise direct action.

The main objective of this study was to give an account of the networks of digital activism on Twitter before and during the 2010–2011 Tunisian uprising. This objective was compartmentalised into three different research questions. The purpose of the first research question (RQ1) was to provide a description of how information was diffused in Twitter before and during the Arab Spring in Tunisia, that is, how information was circulated on Twitter. In order to assess this issue, we analysed the Tunisian activists' network before and during the Arab Spring. In total, five networks were analysed, one before the Arab Spring and four during the uprising. This analysis shows that the five networks present a similar structure to that characterized by power-law distribution. This similarity means that a few nodes manage much information, while many nodes manage less information. Consequently, these networks present participation inequality (Nielsen, 2006), where most users did not participate very much. Thus, nodes that have higher central values tend to be more easily recognised by the others. But, beyond the issue of inequality of participation, this type of network distribution can be seen as an opportunity. The tail of the network, which is formed by the nodes that do not participle very much present a good way to spread information. Users on the internet tend to form unstructured populations. Nodes in the tail of the distribution can aggregate this unstructured population to the whole network. This idea to the concept of weak ties introduced by Mark Granovetter (1973).

The nodes in the tail, that is, the nodes with lower centrality values, are usually nodes that do not have any connection with

the central nodes. As we can see from our findings, the nodes with higher centrality values are, mainly, activists, who were committed first to the anti-Ben Ali movement and, then, to the uprising. However, nodes with low centrality values, that is, the tail of the network, may not be concerned about these events. There are many nodes in the network that send only one message or retweeted just once. But these nodes are essential in the process of diffusion. In sum, we can conclude that digital activists who present a power-law distribution have the same importance as the top-nodes, which are responsible for generating new information, since the bottom-nodes, the nodes in the tail, are relevant to the spread of information generated by the top-nodes and reach wider audiences.

Regarding this conclusion, reciprocity is a good measure for knowing how the information is diffused in the network. The five networks analysed present low reciprocity values, meaning that the relation among the nodes is unbalanced. There are leaders, or central nodes, and the distribution of power in the five networks is asymmetrical and tends to be hierarchical.

The purpose of the second RQ2 was to understand how the activist network was built on Twitter before and during the Arab Spring. Relating to the conclusions that presented just above, we can identify some nodes which played an important role. In the network before the Arab Spring, analysed in Chapter 7, Slim404 (Slim Amamou) was the central node. This result is to be expected because of his action against censorship in Tunisia and because he was one of the organisers of the anti-censorship demonstration on 22 May 2010. However, during the uprising, although continuing to be central, Slim404 was not the most central node. With the exception of the last network (14 January 2011), during the uprising Nawaat was the most central node. The importance of Nawaat during the uprising

was crucial, because they disseminate not only information but also videos about what happened in Tunisia. Moreover, one of the founders of Nawaat, Ifikra (Sami Ben Gharbia), who also exhibited high centrality values, was exiled to the Netherlands. Sami was one of the founders of Global Voices Advocacy, an international network of activists. So, these international contacts were crucial, for example, in the dissemination of Tunileaks, which was diffused by Nawaat.

In that sense, it is important to note that the role played by the Tunisians who were exiled is important. As our findings from the interviews suggest, the initiative of the 22 May 2010 demonstration came from Amira Yahyaoui, a Tunisian girl who was exiled to France in 2010. Thanks to her contact with Tunisian activists living in Tunis, they started to organise the demonstration. So, the role played by the diaspora was fundamental.

The personal background of activists is another important element to consider. In the case of Lina Ben Mhenni, who was born in a very politically committed and engaged environment, her father was a political prisoner and the founder of the International Amnesty in Tunisia, and her mother was a student activist. The same is true in the case of Amira Yahyaoui, whose cousin was the first cyber-dissident to be arrested by Ben Ali's regime and whose father was a judge who opposed to Ben Ali. It that sense, we found it essentially insightful to combine the quantitative data of the network about the nodes with the qualitative data about the nodes.

The importance of combining online networks with offline networks is another important finding of this study. In the case of Tunisia, as we have noted in Chapter 4, Section 4.2, the suicide among young people was frequent in the years just

before the uprising. In the case of Bouazizi's suicide, as our interviewees stated, it was important that Bouazizi's family, and people from Sidi Bouzid, were in touch with activists in Tunisia who knew the situation of this family, along with that of the other families from Sidi Bouazid.

In response to the third research question (RQ3), we analysed the ideas and frames presented on Twitter before and during the uprising. Relating to the network before the Arab Spring, the main idea was the fight against censorship. We can identify this period as the 'movement against the censorship'. Although Tunisia had some economic and social problems, as we noted in Chapter 4, Section 4.2, we have not found many references to it. The conversation was primarily about the censorship. In that phase, the latent phase of the movement, we can identify the construction of a collective identity in that movement. There is an identification of *we,* the activists, against *the other*, in that case Ben Ali's regime as represented in the imaginary figure of *Ammar404.* Tunileaks also was an important event. Although the website of Tunileaks was blocked in Tunisia, the most important thing related to it was that for first time there was evidence of the corruption of Ben Ali's regime. However, due to the fact that the Tunileaks were not available in Tunisia, we must be careful not to overstate the relation between the Tunileaks and the uprising. We can identify the movement of anti-censorship as the latent phase of the uprising because the pre-existence of the long-established online activism was decisive for the development of the uprising, although it is not the only reason that explains the uprising.

During the uprising, the ideas and frames presented were different, however. We can identify as main topics the self-immolation of Bouazizi, who became a symbol of the revolution, the protests and the repression during the uprising, the

corruption of Ben Ali and, overall, the corruption of his wife and his relatives, the coverage of the uprising (at national and international level), and the international relevance of the events.

Mohamed Bouazizi became a symbol of the revolution: a martyr. This role in part materialized because the act of Bouazizi was more than merely an individual act. The suicide of Bouazizi represented the situation in Tunisia, and most especially, the situation of the young people. The dramatic and public self-immolation of Mohamed Bouazizi represented both Bouazizi's personal frustration and the plights of millions of Tunisians, especially unemployed young people, thus, the precariat who were excluded from the system for the lack of socio-economic advancements, and denied fundamental rights, such as the freedom of speech and the freedom of political expression. Mohammed Bouazizi's suicide symbolised the convergence of these two types of demands: The demands of the working-class (socio-economic) and the claims of urban activists (the lack of freedom of speech).

As we have explained in Section 4, Section 4.2, the rate of unemployment was very high in Tunisia, especially among young people with a high level of education. On this point, we would like to differentiate between the activists and Tunisians. The anti-censorship movement in Tunisia was very important, but, at least on Twitter, they did not speak about the general situation of young people. What happened in Tunisia was a convergence of the anti-censorship movement and Tunisians who took to the streets to protest the social and economic situation.

We consider that the combination between activism and people on the streets was a necessary condition for the 'success' of the

uprising. Activists acted as a catalyst, but in the final instance, the uprising was successful thanks to the people who took the streets in Tunisia with anti-liberal claims and calls for social justice. One finding supporting this claim presents itself in our interview with the Tunisian activist, who said that they were in touch with Bouazizi family and people from Sidi Bouzid for six months. They were in touch because Leila Trabelsi and the National Bank of Agriculture wanted to expropriate their lands.

All things considered, the success of the uprising can be understood through, among other factors, a hybrid model that combined the Tunisian network of activists, who had been working on the net for many years against censorship in Tunisia, and Tunisians, especially young people, who fought for their rights against their precarity.

6.3 Delimitations and directions for further research

During the writing of this dissertation, we discovered several interesting directions for future work. More research is necessary to determine how online and offline networks of a movement converge. This idea of convergence is related to the main limitation that we faced in this research: more interviews would be necessary to gain a deep understanding of the uprising. The interviews carried out in our research have been helpful to address our research questions, and their insights have illuminated ideas that were not present on the network, or that at least were not visible through social network analysis and content analysis methods. We first needed carry out the social network analysis in order to identify the main actors on the network, and then the content analysis to pick up the main topics and themes that were present. For these reasons, once we

had identified the actors and themes, we built our questionnaire, and we started to send emails to the nodes.

Maybe our inquiry came late, almost three years after that the uprising: by that time the situation in Tunisia was not good, because three years after the revolution things had not changed enough and terrorism was (and is) an issue that appeared to undermine the hopes of the revolution. Before travelling to Tunisia for fieldwork, we sent several emails in order to contact Tunisian activists, but in many cases we received no response. In the end, we could keep in touch with four persons, and I decided that, although the sample of interviewees was not an ideal size we had to do these interviews. So, the main thing that we learned is that in the future research, the first step should be to conduct the interviews. Beyond the results of our thesis, we also think this type of knowledge is part of the value of conducting the study.

Additionally, we want to suggest that, while we were working on this thesis, we found that it could be interesting to analyse the protests not only from the activists' point of view, but also taking into account the people who were not activists, for instance, young people who were not involved in the movements and who did not participate in the collective action. With this broadened scope, we could try to identify how these movements have effected their everyday lives. Relatedly, and finally, we would suggest further research concerning how the crisis of the neoliberal system that appeared in 2008 has effected the everyday life of the working class and their social networks. And try to identify whether in other cases, as in the case of Tunisia, the working class has converged in a hybrid protest with activists.

Coda

Even though is not the objective of this thesis, we have considered it necessary to complete a final reflection on the relation between society and social movements. This final section is based on the Diani's reflection 'Movement Society or Movement Societies?', which appears in his book *The Cement of Civic Society. Studying Networks in Localities* (2015b, p. 192). According to Meyer and Tarrow (1998, p. 4), the idea of a movement society is based on three principles. Firstly, as the authors note, social protests have shifted from being sporadic to becoming a general feature of modern life. Second, protest behavior is employed with greater frequency, and it used to represent a wider range of claims than ever before, and, finally, the professionalization and institutionalization of protest behavior is perhaps changing the major vehicle of contentious claims, that is, the social movement, into an instrument within the realm of conventional politics.

Societies are coextensive with their members. And one consequence of this identification of society with its members is

that societies change over time. That is, societies are moving. For practical reasons, we had to delimit the scope of the thesis, and we decided cover the period just before and during the Tunisian uprising. But an uprising is not a closed system; one step leads to another. With this extension in mind, we have felt that this coda was a good way to expose some thoughts and ideas that have no place in the thesis, but that relate to our object of study.

Some societies move slower and others faster, but, at least, all societies are moving. Thus, the main question we would like to propose is, are social movements the consequences of their changes or, on the contrary, are social movements the catalysts of these changes? Taking the case of the study analysed in this thesis, the Arab Spring in Tunisia, it seems clear that the Tunisian society of late 2010 is was not the same as the Tunisia society of 1956, when it became independent from France and the authoritarian regime of Habib Bourguiba began.[1] From this point of view, we can say that social movements are the consequences of the change of the society. But it is also true that the protests in Tunisia during the winter of 2010–2011 changed the society, so the statement that social movements are the catalysts of the changes in society is also applicable.

As Christian Fuchs says, we live in a contradictory society (2012), and meditation on these questions suggests that conclusion. What is clear about the new social movements are their differences from precedents movements. For instance, if we think about feminism or the black movement, we think of a group that shares a personal characteristic (to be a woman or to be a black person), and this characteristic is related to the

[1] We consider Ben Ali's regime as an extension of Habib Bourguiba's regime, although each had their own features.

injustices the group suffers. They have a clear goal: to abolish the injustices (machismo, racism, and so on). The recent waves of social movements, from Tunisia to Spain or United Kingdom, are based on changing the structures of what they consider 'failed states'. For instance, in Tunisia the goal was become a democratic country. But, the question that we arrive at is whether Tunisians share the same idea of what it means became a democratic country. The answer is difficult to find, and we think that this is one of the major challenges for social movements today.

For example, the last question of our questionnaire for the interviews in our research was about whether change is happening in Tunisia. We noted that activists showed opposite beliefs, though change is an objective thing: it occurs or not. One interviewee was very pessimistic about it, and another, by contrast, was very optimistic. She said 'we, Tunisians, finally have a real constitution'. Oppositely, the second activist sees how people now have more rights, although there is much work yet to do. These two young women were working together during the revolution, but although we might think that their perceptions about it would be similar, they are not. Tunisia is certainly one of the more optimistic and stable examples of right direction to move in comparison to the case of Egypt where, for example, we saw very little democratic change happening, but we think that their opinion about the Tunisia's situation is based in their expectations.

Speaking of the Tunisian uprising itself, we would say that like the former of the two women, we think it is been one of the more positive experiences, although clearly not an easy one. Rebuilding the state and the governance of a country is no easy task. Those who had their expectations that the revolution

would be easy and quick perhaps had misplaced their levels of expectation. Obviously, a transition is a process that takes time. And, what is more important, we should not expect identical types of democratization that mirror Western democracies, because Tunisia has its own culture and its own social and historical features. We think Tunisia is moving in a positive direction, although it has important challenges. For instance, the rate of youth unemployment is still higher, terrorism is a constant threat, and these are not effortlessly surmounted challenges. But the situation in Tunisia is more stable than in Egypt, for example, where there was a democratically election which produced elected leader, Mohamed Morsi, but then again, a military coup similar to what toppled Egypt in 2011 took place again.

Relating to the transitional process, one question that arises from the Tunisian experience is the role that activists should play when the society changes. In the case of Tunisia, when Ben Ali left the country, Slim Amamou, a long-term Tunisian activist, became Minister of Youth and Sport. Three months after, in May 2011, he resigned in protest of the censorship of several websites by the transitional government. The problem is how to canalise the grievances and whether entering into the political sphere is a solution. We think that it presents two major problems. On the one hand, when you become part of a government, as Slim Amamou did, it is not easy, because since at this moment you do not represent your cause (in his case, the fight against censorship); rather, you represent all Tunisians. But, activism is not something that can be cast off at will; to be an activist involves more: it is a responsibility. We think the case of Slim Amamou illustrates this quality of activism: he had been activist for the freedom of expression and against censorship for many years during the rule of Ben Ali, even

though he was arrested many times, and he could not take part in a government which was replicating the same practices as Ben Ali's regime. By contrast, if you become a part of the government, it is difficult to be critical of that government. As one of our interviewees noted, the solution is that the activists should play the role of watchdogs and carry on working with the civic society in the public sphere, not entering into the political arena. A good example of role materializing in Tunisia was when web-based activists promoted a sort of crowd sourcing of the Tunisian Constitution. Activists wrote and promoted that they wanted their concerns addressed and heard and, perhaps, institutionalised in the new constitutional framework. This promotion was happening in web-based conversations and in monitoring governance activities and decision-making. The use of ICT's represents a very important opportunity to establish these forms of reformation in terms of making governance more transparent, more open, and more responsive to the citizens. But they only represents one opportunity; they needs not to be limited to online activity.

From a critical perspective, the relation between social media and protests illuminates some of the most pertinent questions about the place and role of digital media in contemporary societies. As Lina Dencik and Oliver Leister have rightly pointed out (2015, p. 1), the interplay between technologies and social and political change is rarely a topic in public debates. Instead, we often find ourselves with rather simplistic vision of the relationship between technology and social change. Frequently we are left with an apolitical understanding of not only about the uses of media technologies in different social and historical contexts but also of the design and infrastructure of these technologies. In particular, when an uprising or social change has happened, a dominant narrative has arisen

celebrating the advents of social media as powerful tool to be used for different purposes by a host of progressive social and political actors (ibidem). As developed in Chapter 5 and in the work of Fuchs (2012, p. 20), the causal relationship of media and society is multidimensional and complex. A specific media technology has multiple, but at least two, potential effects on society, and these potential effects sometimes are in contradiction to each other. It poses contradictory potentials that stand in contradiction with influences by the state, capitalist ideology, and other media. But, in the final instance, social media is not the cause of societal phenomena. Fuchs (2012, p. 21) explains that 'they are further a mirror of the power structures and structures of exploitation and oppression that we find in contemporary society. They are tools of communication embedded in power structures.' Consequently, social media, with this contradictory nature, can be at once a tool both for exerting control, for exploitation, and for domination, and for challenging the asymmetric power structures of domination and exploitation.

We agree with Fuchs (2013, p. 18) that a crisis of society does not determine the emergence of protests, but it makes them more likely. The goals and the political direction of a particular movement that emerges in a specific crisis context are contingent, undetermined and dependent on complex circumstances. Social movements do not follow algorithms—they are not deterministic, but are rather complex and dynamic systems (ibidem).

Using the concept of *connective action* proposed by Bennet and Segerberg (2012), we argue that connective action is deeply effected by a generalised social media logic determined by 'the strategies, mechanisms, and economies underpinning these

platforms' (van Dijck and Poell, 2013, p. 3). Social media are algorithmic media (Milan 2015c, p. 56). With some exceptions, they are sustained by proprietary and opaque machine languages that function as 'control technologies'. The corporate enterprises behind social media structures constantly collect data from users preferences and interactions, and the users' profiles are viewed as a customised service for advertising that also monetizes user exchanges. This algorithm, however, is invisible to end-users. Customers have only very limited awareness of how most the social media platforms operate in terms of their technical and policy arrangements (ibidem, p. 57).

Finally, we would like to address the question about the relation between protests and social movements. In our opinion these are not the same. A protest is an expression in the manner demonstration, for example, to express injustices and with the aim to achieve a particular objective. For instance, in our case of study, what happened in Tunisia from 17 December 2010 to 14 January 2011 was a number of protests across the country with the objective of removing Ben Ali's regime. A social movement, in our opinion, involves more. Understanding the concept of social movement as related to the changes in society, and thus understanding social movements as embedded in a society's changes, we assert that the Tunisian social movement did not start with the Mohammed Bouazizi's self-immolation and that it did not finish with the toppling of Ben Ali. But to determine the temporal boundaries of social movements is difficult, almost impossible. Therefore, an answer to this question remains out of reach. What it is clear is that because societies are dynamic, social movements will continue to exist over time.

CHAPTER 7

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CHAPTER 8

Appendix

Appendix 1: Tunisia major cities map

Tunisia is sub-divided into 24 governates, which are futher divided into 264 delegations, and futher divided in municipalities and sectors. The map show the most important cities in Tunisia.

Source: http://www.worldmap1.com/map-of-tunisia

Appendix 2: Interview questions

Questions – Part 1 – Activism in pre-revolutionary Tunisia

1) Do you remember when you started to be involved with activism?

2) Before the so-called Arab Spring in Tunisia some protests had already taken place (i.e., the events in Gafsa, 2008). The network of activists was very active, despite of the censorship in Tunisia, which was a very common practice. On 22 May, 2010, a demonstration took place that was forbidden by Ben Ali's government, against the censorship in Tunisia, but also in other places, such as Paris, Montréal or Berlin. Can you tell me more about this day?

3) 3) Do you remember what kind of offline/online tools you used for the organization of the rally?

4) Did you collaborate with any blog or foreign-alternative media before the 2010–2011 uprising?

5) On 28 November 2010, Nawaat, a Tunisian collective blog founded in 2004, published the Tunileaks, that is, the Wikileaks cables related to Tunisia. The cables were published on the internet by the collective blog Nawaat. Do you remember how you found out about the cables?

6) Do you think that the publication of Tunileaks had some influence on the subsequent events?

Questions – Part 2 – The 2010–2011 uprising in Tunisia

7) On 17 December 2010, Mohamed Bouazizi set himself on fire, and the Tunisian uprising began. Do you remember what you noticed about Bouazizi's self-immolation?

8) Did you collaborate with any blog or foreign/alternative media during the 2010–2011 uprising in Tunisia?

9) What do you think about the use of social media, such as Twitter, Facebook, YouTube and so on, during the uprising?

10) What kind of content did you share on social media?

11) Did you work to coordinate with other activists?

12) Do you remember whether there was/were a central person/persons, such a 'leader' on the activist's network? For instance, someone who coordinated the events or published relevant information about what was happening in the country.

13) Do you remember the name of the accounts that you followed for information about the uprising? Did you follow these accounts previously? Did you have any face-to-face meetings?

14) Many have attributed the Tunisian uprising with the rise of the internet and social media as tools for mobilisation. Do you agree?

Questions – Part 3 – Tunisia after the 2010–2011 uprising

15) What is your opinion about the Tunisian uprising now that some time has passed? Is change happening?

16) Looking forward, what role do you think that online activists need to play in this period of political transition in Tunisia?