The Dissertation Committee for Ikram Toumi Certifies that this is the approved version of the following dissertation:

Information and Computer Technology and the Digital Divide in the

Post-Revolution Tunisia

Committee:

Joseph D. Straubhaar, Supervisor

Mounira Charrad

Wenhong Chen

Kathleen Tyner

Karin Wilkins

Information and Computer Technology and the Digital Divide in the

Post-Revolution Tunisia

by

Ikram Toumi, B.S; M.A.

Dissertation

Presented to the Faculty of the Graduate School of

The University of Texas at Austin

in Partial Fulfillment

of the Requirements

for the Degree of

Doctor of Philosophy

The University of Texas at Austin

May, 2016

Dedication

To all the Tunisian martyrs and revolutionaries who took it upon themselves to give us back our dignity and pride.

Acknowledgements

Next, this project would not have been possible without my strong background as part of a wonderful family, friends, and community. For that, I would like to first thank my parents for instilling in me the importance of education. You are the best parents ever. Even when things got painfully stressful, I never questioned this process and never considered quitting, it was not an option, that's what I learned from you and because of it, this work has seen the light.

To my siblings and my wonderful little nephews, Abir, Oussama, Tarek, and the little stars: Baraa, Aya, Nourane, and Shada. Thank you all for your support. I hope to always make you proud.

To my extended family, thank you for believing in me, for your hospitality and for making summer a wonderful break for me and my kids, for your confidence in me, your pride, and support. Thank you also for calling me a Doctor very early in the process. You gave me a drive to finish and earn the title you attached to my name.

To Nahla and Nouha for their support throughout the process of interviewing and writing. For driving me around, taking me to different neighborhoods, and introducing me to all the wonderful people I met and interviewed. Thank you also for all the information you helped me gather, all the pictures and exhausting visits to the administrative offices and personnel.

To my best friends in the US. Keara Goin and Katherine Piati. I am honored to be your friend, you were wonderful academic role models to me and you are and will always be my wonderful "American" friends.

To all the wonderful Tunisian ladies of Austin. Your unconditional love and support made the achievement of this work less painful and more pleasant. To Abir, Amira, Basma, Basma-K, Ilham, Monia, Layla, Nacira, Yosra, and achirti Wafa, thank you for everything, I love you all. Go Houma!

To Mayara, thank you Yayyouti for the understanding and the support, which were more valuable than you can ever imagine. You are truly exceptional, inspiring, and funny! You rock! To Bayram, thank you for the laughter, the great contagious energy, and love. You and your sister will take over the world.

And finally, to the best thing that ever happened to me, my husband and soul mate Mourad whose patience, support, and academic input played a crucial part in developing this work. You are AWESOME and as impressive now as you were when I first knew you.

Information and Computer Technology and the Digital Divide in the Post-Revolution Tunisia

Ikram Toumi, Ph.D.

The University of Texas at Austin, 2016

Supervisor: Joseph D. Straubhaar

The goal of this study is to better understand the dimensions of the digital divide in Tunisia in the context of the post-revolutionary phase. The significant role of information and communication technologies (ICT) during the revolution and in the post-revolution democracy process raises questions about the inclusiveness of the digital sphere to all Tunisian social groups and about the overall interactions with the ICT and their domestication into the Tunisian households. This study was designed to answer three main research questions: what are the implications of gender, age, and class for (1) ICT access and usage? (2) Attitudes towards ICT? And (3) ICT usage for political participation? An ethnographic semi-structured interview study was conducted in three neighborhoods of the city of Sousse in Tunisia over a two-week period of intensive field work, and was complemented by observations of the locals' interactions with ICT during multiple visits to Tunisia. Respondents were recruited through snowball and convenience sampling. The study focused on those considered to be vulnerable social communities: women, the elderly, and socioeconomically disadvantaged Tunisians. The interview analysis revealed that demographic factors did not have a significant influence on the gaps between the users and non-users, except for age in certain instances. The concept of social capital made the difference and had a significant effect on balancing issues related to economic and cultural capitals. For most of

the informants, social capital, mainly family and community members, played an integral role in domesticating the technologies and brokering techno-competencies to those without economic and educational means. On the other hand, perceived relevance and cultural values emerged as the most significant divide factors. This project makes a theoretical contribution to the literature about the digital divide by emphasizing the role of the cultural values and the social landscape in reducing or widening the gap between the connected and non-connected. This dissertation stresses on the importance of conducting more ethnographic research in small Arab world community contexts in order to reveal more culturally embedded factors that directly affect the interaction between the culture and information technologies.

Table of Contents

List of Figures

Chapter 1: Introduction and Problem Statement

1.1 INTRODUCTION

From December the 17th, 2010 to January the 14th, 2011 Tunisia witnessed an

unprecedented uprising in the country that led to the overthrowing of a 27-year old oppressive

regime. Scholarly research has established that information and communication technologies

(ICT) and social network sites (SNS), especially Facebook, played an important role in the

regime change and in the political and democracy process following the uprising (Bouhafa,

2011; Kuebler, 2011; Cavatorta and Haugbolle, 2012; Dupuis, 2014; Zayani, 2015). Thus, I

started to pay closer attention to the significance of ICT and SNS in the Tunisian new political

and social scene. Being a Tunisian national, I have always followed closely the Tunisian social

and political scenery as well as the overall ICT landscape. I noticed a rapid rise in access and

ownership of ICT devices in the households I often visit and access, which gendered an interest

in other Tunisian households from different economic and social levels. Furthermore, I was

interested in learning about how different socioeconomic and age groups interact with ICTs for

literacy and political participation purposes. Following the events of the uprising, several

research studies and trade media articles focused on Tunisians' ICT use during the events of the

uprising and during the current democracy process. However, knowing the disparities in access

and use between different Tunisian demographic groups, I found the use of the word "Tunisians"

to describe the online community problematic as it implies a generalization and a statement that

all Tunisians (or the majority) are online. For instance, all statistics show that only half the

population- of 11 million Tunisians- is using the Internet (51.7% in 2013)[1] and only two million Tunisians are on Facebook during the events of the uprising and three and a half million as of 2013[2]. Statistics also show that 20.2% of Tunisians own a personal computer[3].

My main concern was the potential exclusiveness of the new political scene to include only those who are connected and those who are media and digital literate. For instance, out of the three and a half million Tunisians on Facebook, only 8% are over 45 years old. This leaves a big number of older people out of the Tunisian digital sphere. Thus, this project is primarily concerned with the issue of the digital divide, its prevalence in the Tunisian socio-technological scene, and its potential impact on the process of democratization following the revolution. Besides their effect on the political landscape, ICT are becoming significant and powerful on many levels of our daily lives. Research demonstrated their power to provide additional educational, income, and overall better well-being opportunities (DiMaggio and Hargittai, 2002; El Gody, 2006; Straubhaar, et al, 2012; Baueruschuster et al, 2014). Internet usage can facilitate maintenance and expansion of social networks and encourage self-expression, especially for vulnerable social groups such as women or the elderly, and increase social, human, and cultural capitals (Straubhaar et al, 2012; Antonio and Tuffley, 2014). However, both access and usage gaps create digital inequalities as those who effectively use the Internet will move ahead of those who do not on the social, economic, and political scales. As a matter of fact, the significance of ICT adoptions and usage is attributed to its ability to create and expand inequality gaps (Warschauer and Hargittai, 2002; Parayil, 2005; Anotnio and Tuffley, 2014) and reduce them (Warschauer, 2003) at the same time.

---

[1] http://www.mincom.tn/fileadmin/PDF/Indicateurs_TIC/Rapports/Stat_UIT_Ind.TIC_2009-2013-Ang.pdf
[2] http://www.wamda.com/2013/04/12-key-statistics-on-how-tunisians-use-social-media-infographic
[3] Tunisian Ministry of Communication, 2014.

The digital divide is an umbrella concept used to study issues of social inequalities in relation to ICT access and usage (Van Dijk, 2005). Vehovar et al (2006) reported the scholarly tendency to refer to the equipment or access divide (as often referred to in digital divide research) as the "first divide", since the existence of such a gap eliminates all succeeding dimensions. In other words, only when researchers establish access to the equipment can they examine the extent of the second divide, i.e., the usage gap. The first wave of digital divide studies used to focus on demographic differences to measure the depth and the impact of the digital gaps. Researchers soon contended that demographic variables on their own do not reveal the complexities of the issue nor do they allow for a conceptualization of the digital technologies as they become increasingly part of the everyday life (Mehra, 2004; Van Dijk, 2005; Leaning 2009).

The new wave of research (since the early 2000s) developed new constructs to measure the digital divide, mainly in relation to usage, relevance, competencies, and benefits. DiMaggio and Hargittai (2001) identified the following five constructs as the main dimensions of the digital divide: (1) the equipment or the devices; (2) the autonomy of use; (3) the skills or competencies; (4) the social and cultural support; and (5) the relevance or the purpose from using the Internet. Each of these constructs engenders a different level of social inequality. In this research, I use the five categories to examine digital gaps among and within different demographic groups.

While usage is related to enhanced life opportunities, it does not guarantee these rewards on an equal basis to all social groups. Research has shown the ICT provide higher rewards to some social groups vs. others (Rojas et al, 2001; DiMaggio and Hargittai, 2002; Straubhaar et al, 2012). That is why studying the contextual layers that influence Internet access and the efficacy of usage are particularly important to the examination of the digital divide. Social factors such as

3

gender equity, socioeconomic stratifications, family history, community life, have direct influence on the quality and benefits of ICT use (Foley and Ferri, 2012; Straubhaar et al, 2012). The social aspect of the technology guides the design of this study. I build on social and media studies arguing that technologies are manipulated by human agents of a particular society for specific social situations, resulting in the creation of modes of usage that are specific to their social context (Bakardjieva, 2005; Leaning, 2009).

I use a combination of demographic and social factors to explore the issues of access and usage in the Tunisian context. In his study of the pre-revolutionary digital culture in Tunisia, Zayani (2015) noticed the scarcity of research stemming from the Tunisian context. He stressed on the need for "historically grounded and theoretically informed analysis of micro-processes, cultural practices, and societal interactions that intersect with and are embedded in media usage, production, and consumption and anchored in evolving trends of socialized communication that are indissociable from everyday experiences and practices" (p. 13). Inspired by Zayani's (and other Tunisian scholars') call for more research about the Tunisian everyday experience with ICTs, I planned this study in order to understand the interaction of everyday Tunisians with digital technologies. My aim was to reveal trends and patterns of interactions with ICT that emerge as a product of the Tunisian context. In other words, what makes the Tunisian adopters and users experience and interaction with ICT different from adopters and users in different parts of the world?

The overarching objective of in this study is to understand the digital divide. My goal is to identify the dimensions of the digital gap in my group of respondents through qualitative data collection. According to Van Dijk (2006), qualitative, small-community-focused research is a more appropriate framework for the examination and understanding of this globally persistent

4

issue. "Interviews are the digging tool of social science" (Lindlof and Taylor, 2011, p. 171) as it allows for an in-depth examination of a particular problem with open ended questions that enable the respondents to freely discuss or talk about their experience or opinion about a certain topic. Besides, this method provides the researcher with great flexibility and can be easily adjusted to specific contexts and circumstances (Lindlof and Taylor, 2011). On another note, qualitative study is a process of inquiry that allows the researcher to include the context as a part of the research, and to use data collected beyond the tool itself such as the observations made during the interviews (Cresswell, 1998). Consequently, the qualitative method appears as the ideal tool to address the questions described above.

To achieve my research aims an in-depth interview study was conducted in the region of Sousse in Tunisia to develop a qualitative understanding of the digital divide in Tunisia from three main perspectives. The first is the scope of the divide in terms of demographic and structural differences in technological adoption, mainly technological acquisition and access. The second perspective encompasses the dimensions of the usage gap in terms of technological competencies and skills, as well as differences in levels and modes of usage. The third perspective refers to the degree of ICT usage for political information and participation. Three main population groups are most pertinent to my study: low-income groups, women, and the elderly. The elderly are one of the most affected groups by the divide especially when age is combined with low income, few educational qualifications, and low literacy levels (Cullen, 2001). Besides, they are particularly affected by the consequences of the new form of digital divide, i.e., lack of digital competencies given that younger generations develop digital and technological competencies in a faster rate than the older ones (Chen and Wellman, 2004; Correa, 2013). In general, the youths are more technology savvy than their elders who have

5

limited use of digital and new media technologies even when they have available access to the technology (Selwyn, 2004).

The second group, women, is considered a vulnerable group not only in Tunisia but in most societies and cultures. Women in the MENA region are particularly vulnerable because of many historical, social and religious factors. El Gody (2006) argued that Arab countries must first address the issue of women's rights in order to bridge the digital gap between the Arab world and the rest of the world[4]. I am particularly interested in investigating whether this applies to Tunisian women given that Tunisia is known for having one of the most progressive women's rights bill and one of the highest literacy rates in the region. Nevertheless, Tunisia is still a patriarchal society and women still hold the second position in the gender scale (Sinha, 2011), which leads me to suggest that gender may be an important factor in women's digital media use.

Finally, my research focuses on people from the less privileged socioeconomic groups. My aim is to understand the intersections between gender, social class, and age with the specific cultural and social context of Tunisia with regard to digital technology use. I conducted my interviews in two popular and one upscale - for comparative purposes- neighborhoods to examine their modes of interaction with technologies. For long, low socioeconomic status groups were categorized as the "have-nots." This categorization soon proved to obscure complex digital experience of this social group that goes beyond the issue of access and Internet ownership (Mehra, 2004). On the one hand, as technologies become more affordable, ownership is no longer a measure of social class or social disadvantage. On the other, establishing ownership does not eliminate issues such as digital competencies, relevance, and attitudes that may hinder or promote advantageous usage of ICTs. That is why, the issue of the digital divide in regard to

---

[4] The Arab World has always scored significantly low on the digital divide index.

the less privileged social groups is increasingly important not only to ensure the inclusion of all social groups in the social sphere, but also ensure the access of these groups to an affordable and feasible means of empowerment.

1.2 LITERATURE AND THEORETICAL FRAMEWORK

In this section, I explain the theoretical significance of studying ICTs from a digital divide theoretical perspective. First, I explore modes of ICT usage in everyday life in everyday homes. I discuss their overall benefits and advantages to those who access and use them, and the problems they create for those who don't. I explain how scholars defined and studied the issue, paying particular attention to the dimensions they used to examine this concept. In the final part of this section, I look at the digital divide from a political participation perspective and discuss ICT's ability to foster democracy and political involvement, especially in relation to the Tunisian new-found democratic context.

1.2.1 ICT at Home

Digital technologies have become an undeniable part of the daily life of family households (Livingstone and Bober, 2006). Bakardjieva (2005) states that "as a direct reflection of the sweeping computerization of the institutions of production and education, computer technology had acquired imposed relevance in the everyday lives of people who were not necessarily 'knowledge workers' of high education and status" (p. 93). ICTs are part of most household everyday life system of education, leisure, work, and communication. However, households are divided in terms of ICT usage as there is substantial differences between the ways Internet shapes the lives of older vs. younger generations. Ever since its introduction in the family households, the Internet has become a fundamental and structural part of the young generations' life (Prensky, 2001). On the other hand, older generations' Internet usage and interaction depends on several social, educational, and psychological factors. Prensky explained that "as digital immigrants learn- like all immigrants, some better than others- to adapt to their

environment, they always retain, to some degree, their "accent," that is, their foot in the past." (p. 2). On the other hand, technologies are a familiar domain to the young generations given that it's their native land and language.

This basic age-specific difference in the relationship between technologies and individuals results in significant gaps between the generations. While younger generations are known to be tech-savvy, the older generations adopt technologies at slower rates. In addition, the digital gap becomes even wider as the group becomes older. According to a report published in 2012 by the Pew Research Center, half the American adults age 65 and older access and use the Internet on a regular basis. However, the number drops to one third of the 75 and older age group. Once online, both age groups use the Internet for entertainment such as reading e-books, or for communication and socialization such as emails and Facebook (Pew Research Center, 2012[5]). The extent of similarities and differences between activities is often related to the older generation's' values and cultures. For example, in Tunisia, younger generations are less attached to the traditional and patriarchal customs. On the other hand, older Tunisians are much more attached to their values and traditions which shape their attitudes and use of ICTs (Roy, 2012). This difference is an example of the ways in which the digital natives come in conflict with the digital immigrants (Prensky, 2001). It also constitutes one of the reasons for the persistence of the digital gap between the generations (Livingstone and Bober, 2006; Correa, 2013).

The above goes in line with studies conducted in Western cultures about older versus younger generations' interactions with the Internet. Livingstone and Bober (2006) examined the ways Internet shapes and is shaped by the family life, from a safety and parental regulation and control perspective. Their study revealed that both children and parents found the Internet to be

---

[5] http://www.sainetz.at/dokumente/Older_adults_and_Internet_use_2012.pdf

challenging, especially for the parents who view the Internet as a danger to their family values, and to the safety of their children (Livingstone and Bober, 2006; Correa, 2013). On the other hand, the interactions between the generations in regard to household digital technologies can take a beneficial and positive shape. Several studies examined the transfer of digital competencies from one generation to the other within the household. This line of research suggests that oftentimes, it is the offspring that play the role of brokers and transfer the digital competencies they acquired through formal education or through other community resources (cybercafé, youth centers, and other family members) to their parents and grandparents. This trend takes place particularly in socially disadvantaged and minority groups (Rojas et al, 2001; Bakardjieva, 2005; Correa et al, 2013; Straubhaar and Lu, 2014). Bakardjieva uses the term "the warm expert" to refer to the person who becomes the relative "digital expert" in her/his own household and engages in helping the digital novices of the family.

In general, Bakardjieva (2005) accords greater agency to the Internet users at home. In her ethnographic study of the domestication of the Internet, she argues that unlike deterministic claims that the Internet will take over the everyday life of its users, the latters are aware of the array of usage and adoption options available to them and make informed choices about their interactions with the Internet and other digital technologies. Bakardjieva is part of a long line of research framework that views technology as a component of society that must be examined and understood as such (Qvortrup, 1984; Freeman, 1992; Miller and Slater, 2000; Leaning, 2009). Mehra (2004) refers to this perspective as the "situated approach," (p. 795) which focuses on ways that technologies and societies shape each other. She argues that daily practice gives shape to the technology, while the technology simultaneously shapes social practices. In this regard, similar to Mehra, Brahimi and Babak (2015) explained that technology must be understood,

within the set of values, social structures and symbols, as the products of lived practices and experiences that shape and negotiate their meaning. On the other hand, the authors, like many other researchers, also point to the reciprocal shaping of the human experience by the technologies, which may provide positive or negative outcomes depending on usage, social, economic, and political factors.

1.2.2   Internet and Empowerment

The discourse about the Internet and social inclusion is strongly connected to the discourse about the Internet and social empowerment, particularly where social marginalization, low socioeconomic status, and a minority status are characteristics of the group under focus (Mehra, 2004). ICT do more than provide means of entertainment or channels of communication. They also provide means for social empowerment, access to education, and income-enhancing activities (Foley and Ferri, 2012; Antonio and Tuffley, 2014). Dewan and Riggins (2005) argued that ICT provide groups from low-income classes with opportunities to engage in economic activities such as online business and employment activities.

Correa (2013) revealed that the Internet empowered women from lower socioeconomic status (in a study about Chilean families and techno-capital) with, for many, opportunities to expand and improve the quality of their small businesses, and more generally to improve their overall social and psychological being. In line with Correa, Mehra (2004) stated that Internet and other technologies usage has the potential to increase "feelings of self-worth and self-empowerment" (p. 797). Antonio and Tuffley (2014) focused on SNS as a vehicle for women empowerment in developing countries. They argue that SNS and ICT in general allow women to form social groups online, and thus empower each other and develop ways to improve their

living situations. Additionally technologies foster self-expression and enable the emancipation from geographical and cultural and socioeconomic barriers (Foley and Ferri, 2012; Antonio and Tuffley, 2014).

In the case of the elderly, studies, especially from the field of psychology, demonstrated that Internet use positively correlates with an overall sense of wellbeing. This research emphasizes the entertaining, socializing and educating features of the Internet, which provide older people with an enjoyable daily experience that improve their psychological state (Berkman and Glass, 2000; Chen and Parsson, 2002; Erickson and Johnson, 2011). Heo et al (2015) explored the relationship between the Internet usage and the elderly from a psychological perspective. Their study revealed that "higher levels of Internet use were significant predictors of higher levels of social support, reduced loneliness, and better life satisfaction and psychological well-being among older adults" (p. 268).

However, these benefits of ICT usage are only accessible for those who are connected and using these technologies. Those who are not connected, remain excluded from the economic, educational, and entertaining opportunities that the digital sphere offers. In the following section, I examine the issue of the digital divide, how it has been framed theoretically, and how it has been researched in studies most relevant to my research.

1.2.3   The digital divide: A barrier to social inclusion

In the fast-changing media scenery, what is considered new media is context-related; what is new today will be old and traditional in the near future. According to Merrin (2009), today's media experience is best understood within the digital paradigm. ICT in general are continuously changing the social order and the political, economic, and cultural scenery

(Castells, 1981). While access to ICTs provides a wide range of social benefits (DiMaggio and Hargittai, 2002; Foley and Ferri, 2012), it can also engender deep divides between the haves and have nots and between the users and the non-users. DiMaggio and Hargittai (2002) argue that the Internet in particular provides greater education, income, and health resources for users. However, the benefit to a society will only ensue with the inclusion of all its members in the digital circle in order to guarantee the equal access to the benefits of ICTs. This is still far from being achieved in most nations of the world, which resulted in a wave of study concerned with the concept of social inequality engendered by the digital divide (DiMaggio and Hargittai, 2002; Norris, 2001; Bakardjieva, 2005; Clayton and Macdonald, 2013; Antonio and Tuffley, 2014). This concept has proven to be complex and difficult to fit in one definition. The gap between those who have access to ICT and those who don't was the most commonly used definition. This definition has informed the early wave of the digital divide research - given that it corresponded with the early stages of Internet diffusion. However, the lack of access to the technologies is no longer sufficient to explain the digital gap within and across populations or countries; other factors contribute as much as the lack of access to the digital divide.

Scholars were concerned that the lack of access conceptualization would lead to thinking that the digital divide is simply a problem of material and physical acquisitions, and refers only to socio-economic inequalities (Van Dijk, 2006). Several researchers soon stated that access should not dominate the digital divide research and pointed out that the digital gap should also be studied among people with access to technology equipment and to the Internet (DiMaggio and Hargittai; Van Dijk, 2005). On the one hand, their concern about the "access" framing of digital divide research proved to be justified with the abundance of quantitative research stemming from socio-economic fields of studies. On the other hand, this line of "access" based research

pressured political and social decision makers to put the digital divide as an important issue in the development and policy agenda (Van Dijk, 2006). In his 2006 meta-analysis of digital divide studies, Van Dijk (2006) identified the lack of theories as one of the main problem of the research focusing on the digital divide, which is one of the reasons why the term "the digital divide" has proved hard to conceptualize. However, Van Dijk mentioned both a noticeable shift in the research focus, from physical access to the usage and the skills required to use ICT, and a persistent lack of focus on the key determinants of the digital divide such as economic, social, political and cultural factors.

In the coming section, I will summarize some of the factors and research studies that moved beyond the access component of the digital divide. Rojas *et al.* (2001) took a cultural and sociological approach in their analysis of poor and working class minority groups of Austin, Texas. They analyzed the intersection of the cultural and socio-economic factors, with the race, ethnicity, age, and gender factors to examine the social construction of ICT in the lives of the specific groups they chose to study. They focused mainly on Bourdieu's concepts of techno-disposition to understand how techno-capital is transferred across the generations (from the parents to the children and from the children to the parents). The term techno-disposition is central to the study of the interaction between social and technological factors and how they affect one another. They defined "techno-dispositions by the following indicators: practices, perceptions and attitudes, technical education, awareness of technology, desires for information, job requirements, social relations with community members and community organizations, and geographical location" (2001, p. 9). Rojas and her colleagues found that socio-economic status is still the main determinant of the acquisition of techno-capital, while the social capital- the

resources provided by one's social networks/acquaintances- does not necessarily foster technological skills or usage.

The usage construct can be studied from several perspectives. Some examined it in terms of information services and relevance to the users (Stanley, 2003; DiMaggio and Hargittai, 2002; Correa, 2013) while others examined usage in terms of "quality of use" (DiMaggio and Hargittai, 2002). Stanley's (2003) research findings- and approach- were similar to those of Rojas and her colleagues, as she found that culture was one of the key factors in the low usage and lack of computer competence of low income communities of San Diego, California, while access had a less significant impact. Moreover, Stanley attributed the lack of usage and willingness to learn and acquire computer competencies to psychological factors, which she classified into three main obstacles: (1) "relevance", which is when the respondents didn't feel that computer technologies will have a direct economic or social impact on their lives or future; (2) "comfort zone," which refers to the refusal to challenge negative self-assessment and the unwillingness to alter daily routines; and (3) "self-concept," which she uses to describe the belief that one is not the "type" of person to use a computer. In other words, being a "computer user" was not one of their possible selves (their visions about who and what they may become) (Stanley, 2003, p. 412). The respondents perceived the medium- the computer- as highly complex which created anxiety stemming from feelings of "fear" to damage or wreck the device Both Stanley's and Rojas *et al.*'s studies revealed that access was not the main attribute of the digital gap in the communities they studied; rather, it was the problem of usage and availability of the digital/computer competencies necessary to be able to use the technology.

In their article/report "Confronting the challenges of participatory culture," Jenkins *et al.* (2006) argue that digital competencies enable online political and social participation. Thus, the

lack of these competencies results in the lack of community involvement and engagement in the political and social life taking place online and even offline. An example to support Jenkins et al.'s claim would again be the case of pre-revolution Tunisia or Egypt, where the new media both facilitated and discouraged the acquisition of competencies and collective content production. Because of the government ban over political blogging and political websites, Tunisian and Egyptian youth were compelled to learn how to work their way around the government censorship, before the political change. Thus, they created affinity spaces and engaged in informal peer to peer learning where they taught each other how to use proxies, and learned how to download and store website pages under zipped files and share them among each other without being caught. They also learned how to encode and decode each other's (and the popular bloggers) messages that were scripted to dodge the attention of government watchdogs. In other words, the same circumstances that put barriers on their content generation and political engagement stimulated their creativity and pushed them to acquire media and digital competencies and to engage in collaborative problem solving. This gave them an advantage over those who are "digitally illiterate" in following the political scene of their country. While the recent social movement studies focusing on the Arab world reported no significant gender differences in terms of online participation, other dimensions of the digital divide reveal a gender gap in terms of ICT usage.

El Gody's (2006) earlier study about Arab women and ICT access and use, shows that gender inequality is one of the main reasons for the digitally fragmented Arab society. He claims that social, cultural, and religious characteristics of the Arab world have greatly contributed to the marginalization of Arab women. In addition to the gender divide, El Gody (2006) identified illiteracy as one of the most important factors contributing to the digital divide in the Arab

societies. Coleman & Blumler (2009) argue that the outcome of public discussion and the notion of citizenship differ in a context where literacy rates are lower than the rest of the world, and where media literacy and digital competencies are not fully integrated in the educational system (The Knight Commission Report). Several illiteracy factors negatively impact ICT usage, but the issue of the lack of language proficiencies is particularly significant in the case of Internet use. El Gody explains that more than half the Arab population have little to no English language proficiency, which greatly affects their ability to navigate and use the Internet.

The language barrier hinders the effectiveness of a universal solution to the digital divide, especially considering the enduring lack of domains, websites, and search engines that offer their services in Arabic (El Gody, 2006). Indeed, most popular websites in the Arab world are offered in English and Latin languages. Warschauer (2012), adds that for a long time, Internet remained an elitist medium in countries such as Egypt because of the lack of Arabic websites and the difficulties of typing in Arabic. However, in recent years, Internet has become a linguistically pluralist space with websites and services offered in multiple global languages. Yet, one of the persistent linguistic problems is the cross-language interactions as the popular groups, forums, services websites, are still provided only in English, which puts those who don't speak or have little English proficiency at a global disadvantage. Hargittai and DiMaggio (2001) discussed this factor of lack of relevant content. They referred to the problem as the lack of "availability of suitable content" pointing out to its contribution to the creation of further social and linguistic-based inequalities, which adds one more dimension to the problem of relevance.

1.2.4   ICT and Political Participation

One thing ICT are doing to our world is blurring the line between the public and the private, and redefining the concept of citizenship. It has allowed the user to move from his/her stand as a spectator to take a seat around the virtual table (Coleman and Blumler, 2009) and become a political and civic participant. Political participation refers to citizens' active involvement that aims at influencing decisions made by the governments and the outcome of official elections (Gustafsson, 2012; Zhang et al, 2010; Coleman and Blumler, 2009). Civic participation and engagement refer to the people's willingness to volunteer for community actions through non-government means (e.g., building a homeless shelter) (Zhang et al, 2010). Accordingly, several media and social scholars foresaw the potential of the Internet and ICT to enhance democracy by fostering citizens' participation (Dahlberg, 2001; Jenkins and Thorhurn, 2003; Castells, 2009; Coleman & Blumler, 2009; Brassari and Trere, 2012). In addition, the collective nature of the Internet offers the citizens low-cost engagement and expression tools, along with the opportunity for multi-directional communication (bottom-up, many-to-many, horizontal, peer-to-peer) that challenges the broadcast model (Coleman & Blumler, 2009; Merrin, 2009; Jenkins and Thorhurn, 2003; Resnik, 2001; Delli Carpini, 2000). Through its interactive features, Web 2.0- the new features of the web that allow users to produce and generate content not only consume them (O'Reilly, 2005)- is allowing an increased and continuous flow of personal information presenting the user with the ability to mass mediate themselves (Castells, 2009; Brasari and Trere, 2005).

Today, ICT and new media are changing people's sense of ourselves as members of the community, and their sense of communities as part of a bigger social group, i.e., a nation or nation -state (Jenkins and Thorburn, 2000). Dahlberg (2001) discusses the constructivist nature

18

of the relationship between the state and the citizens. The author argues that it is not a static

predetermined relationship; rather, it is continuously evolving, redefined, and rearticulated by the

emergent technology and the changing nature of the social and economic environment (Coleman

& Blumler, 2009; Dahlberg, 2001). Buckingham (2009) also takes a postmodernist stand by

questioning the fundamental epistemological assumptions on which traditional notions of

citizenship are based. Briefly, the majority of scholars take a social constructivist view of ICT

where the effects of the technology are constructed based on multiple elements and contexts

rather than based on the technology itself. In fact, the theoretical narrative about ICT and social

change is moving from questioning whether ICT foster political and social change, to identifying

the nature of their role and the contexts in which they facilitate social change.

1.3 THE CONTEXT OF THE STUDY: TUNISIA

My focus is on how the social aspects of Tunisia shape the usage of computers and the

Internet, especially in popular and middle class neighborhoods, and reciprocally, how

technologies have shaped Tunisians' daily life as well as their political attitudes and behaviors.

Thus, in this section, I provide an overview of Tunisia and of the factors that inform my analysis,

namely, the history, education, gender, and technological attributes of the country.

1.3.1 History and Society

Tunisia is a small North African country of 11 million citizens. It is a hybrid society with

a blend of cultures and civilizations, and a multi-layered identity mixing Maghrebin, Arabic,

Islamic, African and Mediterranean traits (Tchaicha and Arfaoui, 2012). It was a French colony

from 1881 to 1956, which left visible and evident marks on the political and educational systems

as well as on the social and cultural life (Merone, 2015). The first president Habib Bourguiba,

along with other independence struggle figures based their vision for building the country on the

French ideologies. Their main goal was to modernize the Tunisian society through developing

the economy and improving the social life (Merone, 2015). Bourguiba's political vision was to

create a nationalist, secularist, and a socialist society that supported free education and the

emancipation of women and invested heavily in these two areas (Murphy, 2003; World Bank

Report, 2005). Bourguiba was relatively successful in his vision and long term strategies, as

Tunisia has become one of the most modernized Arbic societies with progressive women rights,

high levels of literacy, and a stable agriculture, industry, and tourism economy (Ayeb, 2011). For

years, Tunisia's economy maintained a stable annual growth of 5%[6]. However, the country was

hit by an economic recession following the 2011 revolution. The recession was marked mainly

by price inflation and rising unemployment from an already high 13% in 2010 to 18% in 2011

(Wolf and Lefèvre, 2012). Today unemployment remains high at 15.3% (World Bank, 2015).

The inflation coupled with the unemployment rate had a particularly significant impact

on the middle and lower socioeconomic classes of the country. However, it is difficult to find

research that discusses the social stratification aspect of Tunisia. To my knowledge, very little

empirical research from all fields has been undertaken in the area of social class in Tunisia. The

few studies that discuss socioeconomic stratifications use national statistics to divide the

Tunisian social classes. Based on these statistics, it is argued that up to 80% of Tunisians are

considered middle class which is divided to the Tunisian upper middle class and the lower

---

[6] World Bank country overview: Tunisia, retrieved on 02/04/2016 from
http://www.worldbank.org/en/country/tunisia/overview
I would like to bring attention to the fact that most statistics about the country before the revolution were based on government data or were controlled by the government (in the case of NGO numbers). The government attempts to meet requirements of the economic partners (mainly the EU) through amplifying numbers and statistics that do not always reflect the social and economic status of the country.

middle class (Brown and Spilling, 2009). The authors, revealed a notable growth in the size of

the lower middle class population following the recent recession (Brown and Spilling, 2009;

Wolf and Lefèvre, 2012). Hasnaoui and Belhadj (2015) used a survey study of the Tunisian

household (N = 11,281) conducted by the Tunisian Institute of Statistics in 2010 to explore the

Tunisian social classes. The authors used categories such as socio-professional status,

consumption of durable goods, family size, the place of residence, the employment status, the

heritage, and the perceptions of belonging to the middle class. Their findings goe in line with the

above mentioned studies. They argue that the middle class has reached 90% of the population.

Within this class there are three main groups, the upper and middle groups constitute 80% and

the low-middle class constitute about 12% of the middle class category. The latter group

oscillates below and above the poverty line depending on the economic situation of the country.

For instance, following the revolution and its consequential recession, poverty rates rose to reach

7.6% in 2013, but started declining again to reach 7.1% in 2015 as a direct result of the steady

and peaceful progress of the political transition (Worldbank.org). That being said, the national

statistics mask significant regional divide. The rural areas poverty remains double the national

average even though it is positively correlated with the national poverty rates (World Bank

Report, 2005).

Education, on the other hand, is a significant aspect of the Tunisian society and economy

with 20% of the annual budget allocated to public education (Brown and Spilling, 2009). As a

result, public education is free and standardized for all levels, and mandatory until the age of 16

(Brown and Spilling, 2009). By 1995, Tunisia's 6 year-olds were all enrolled in school, which

was one of the Millennium Development Goals of universal primary education (World Bank

Report, 2005). Moreover, the educational system does not discriminate between girls and boys,

with more than half the students registered in Tunisian colleges being women (World Bank Report; Tchaicha and Arfaoui, 2012).

Tunisia is known as the most liberal country in the Middle East and North Africa (MENA) region, because it is a regional leader in terms of gender equity (Tchaicha and Arfaoui, 2012; World Bank Report). Tunisian women enjoy significant social and legal freedom articulated in the "Code of Personal Status" (CPS), a progressive set of laws instigated and implemented by Bourguiba in 1957 (Brown and Spilling, 2009; Ayeb, 2011; Tchaicha and Arfaoui, 2012). The CPS guarantees Tunisian women equal political rights (voting and candidacy), economic rights, reproductive rights (family planning and abortion), and civil and legal rights (children's custody, divorce, etc.). The CPS also abolished polygamy, which makes Tunisia the first country and even to this date one of few exceptions among Arab countries, where polygamy is banned (World Bank Report, 2005; Brown and spilling, 2009; Charrad, 2011). The 1993 reform under Ben Ali's presidency gave equal authority rights to both the father and the mother and allowed Tunisian mother to transfer their nationality to their children regardless of the nationality of their husbands (Charrad, 2011). In addition, The early implementation of the family planning program (1964) resulted in a reduction of birth rate from 7 to 1.7 children per woman (Brown and Spilling, 2008; Roy, 2012). The combination of these factors has transformed the essence of the Tunisian society; it is now based on nuclear families rather than extended families, with less children in each household, a husband and wife who are closer to each other in age and most often in educational and professional levels, and an abundance of technological and media devices in each household (Roy, 2012).

Nevertheless, Tunisia is still a patriarchal society and Arab and Islamic traditions often hinder the full enjoyment of rights guaranteed by the CPS (Charrad, 2011; Tchaicha and Arfaoui,

22

2012). While pay equity is stipulated, men still hold the highest positions and advance faster than women in their work positions. The same applies to the family which still holds men in higher position, and holds females to higher moral and conduct expectations than their male counterparts (Tchaicha and Arfaoui, 2012). Research from Western cultures with similar defined gender roles showed a direct effect on the acquisition of ICT competencies, with women becoming skilled in technology use at a slower rate than their male counterparts (Van Dijk, 2005; Lu and Straubhaar, 2014). It would therefore be reasonable to anticipate a comparable impact of gender difference on ICT usage in Tunisia as well.

1.3.2   ICT and Digital Divide in Tunisia

Following the World Summit of 2005, the Tunisian government invested heavily in ICT infrastructure. By the end of the decade, Tunisia had become a leading country in ICT infrastructure in North Africa and the Arab world (Breuer and Groshek, 2014; Jelassi, 2010). In 2001 the government launched an initiative called "The family computer program" to allow families to purchase computers at an affordable price. To insure a high penetration, the government offered low-cost access to the Internet by implementing the "5As strategy" which aims at providing, Accessible, Affordable ICTs, for Anyone, Anywhere, and Anytime (Breuer and Groshek, 2014; Jelassi, 2010). As a result of the 5As strategy, Tunisia today provides one of the lowest broadband prices in Africa with 84% of Tunisian users having access to the Internet at home. In addition, the Tunisian government implemented programs that aim at providing Tunisian youth with ICT and multimedia skills through national and regional computer centers that offer training for free (mostly) or for very low costs. Furthermore, educational institutions offer information and multimedia classes for students and pupils. Basic skill courses are usually

required, and advanced courses are optional or limited to specialized institutions (Ouerghi, 2007;

Azouzi, 2009; World of telecommunication/ICT Development Report 2010).

A more recent initiative called the "e-Tunisia" program was launched between 2005 and

2011. The government took measures to "modernize the public administration in order to

facilitate communications within government (G2G), between Government and citizens (G2C),

government and employees (G2E) and between government and business section (G2B)

(Ouerghi, 2014, p. 4). E-Tunisia also aimed at fully integrating ICT in all education levels, to

digitize cultural and scientific resources, and popularize their use to facilitate the general public's

access to these resources (Ouerghi, 2014). This initiative has resulted in a highly connected

population with a mobile phone penetration rate that surpassed the 100% (Macharia, 2014), and

an Internet penetration rate of 51% as of 2013[7].

These numbers allowed Tunisia to rank among the top six African nations in terms of

ICT penetration and infrastructure. On the other hand, they revealed that Tunisia still has many

challenges to overcome, given that only half of the population is connected to the Internet, which

is a low number compared to developed countries. As a matter of fact, it was clear after the

events of the uprising that the official statistics reflecting Tunisian prosperity and stability were,

to a large extent, a facade created by the government to mask major deficiencies, and maintain an

appealing image of the country with respect to foreign economic partners' sociopolitical

requirements. Unfortunately, there is a limited number of in-depth scholarly studies that situate

ICTs within the social context of Tunisia or the whole MENA region and explore exactly how

the regional disparities, social problems, and political control affected ICT adoptions and usage

in Tunisia (Zayani, 2015). Researchers still have to rely on government and NGO statistics about

---

[7] The Tunisian Ministry of Communication Technologies and Digital Economy.

ICTs, and build on existing divides and social problems in the region in order to develop some understanding of the Internet and digital media dynamic in the Arab world.

The stability and prosperity facade concealed deep and serious social, economic, and political issues that led to the 2010 uprising (Zayani, 2015). For a long time, these problems were overlooked in the digital initiatives. However, the weight of these problems and the social divide started to shape the post-revolution planning for the future of ICT in Tunisia. Thus, the new initiative -*Digital Tunisia 2018*- which was developed in 2013 by the Tunisian Ministry of Communication Technologies and Digital Economy had as one of its main goals: "the reduction of regional and generational differences to insure access for all" (National ICT Regulatory Frameworks Report[8]; Tunisia, 2014, p. 5). Although, there are no official reports from the ministry about the types of digital divide in the country, it is obvious from the goals of *Digital Tunisia 2018* that the government has identified two main types of divides: regional divide and generational divide. This may be due to the general social and political post-revolution context, which began to focus more attention on deep social disparities between Tunisian social groups, and dedicate more efforts to reduce the gaps between them.

In the following section, I discuss a few of the problems most pertinent to my study. First on the list is the regional divide. Following its independence from French colonization, Tunisia's development programs allocated most focus and resources to the coastal regions, which led to great regional inequalities (Ben Hassine, 2014). Today, there is a significant divide between coastal cities and the rural Western and Southern parts of the country (Breuer and Groshek, 2014). According to Saidani (2012), the poor interior parts of Tunisia have been isolated

---

[8] ClusMED is a European Union funded project which goal is the "reinforcement of ICT regulations and ICT for tackling societal challenges links in Europe and in the Mediterranean countries."
Report retrieved on October, 2015 from: http://www.clusmed.eu/?wpdmact=process&did=38

socially, economically, and politically from the rest of the country. This led to waves of migration from the interior region to the more prosperous coastal cities. In fact, it was not a surprise that the first sparks of the revolution came from those underdeveloped and marginalized areas.

Second, is the generational divide or the differences between the connected youth and the less technologically engaged older generations? The older generations continue to fall even further behind technologically, while the younger generations become more technologically and digitally literate. Part of the problem is due to the modern education landscape which includes technologies as part of its teaching strategies and goals. The generational difference is no surprise as many theorists have identified "age" as one of the main factors in the gap between those who use technologies and the Internet and those who don't (Negroponte, 1995), and between those who have the skills to use technologies and those who don't (Van Dijk, 2004).

Also left out of the *Digital Tunisia 2018* initiative is the state of women in the technological sphere. I am concerned with the existence of a gender divide in Tunisia stemming from a line of research that finds men to be more avid users of ICT and from the patriarchal nature of the Tunisian society. According to Van Dijk (2005) "[ICT] use is very much gendered" (p. 182). Through his series of digital divide studies, Van Dijk found that men in developed countries use the Internet twice as long as women, even though the access divide between the two genders has been closing. While Tunisian women are known to have one of the highest literacy rates and progressive women rights in the area (Sinha, 2011), gender inequality is still a significant problem in the Tunisian society and women have less opportunities for employment and power positions than their male counterparts (Ben Hassine, 2014; Sinha, 2011).This assertion is confirmed by Ben Hassine's study (2014), which was conducted to assess Tunisian

female students, staff, and faculty use of ICT. The study revealed that although both gender are

guaranteed equal access to ICT on campus and at home, women are less likely to spend time

using ICT and thus less likely to acquire ICT skills compared to male respondents. The female

respondents explained that fulfilling domestic responsibilities is the main factor preventing them

from allocating more time to ICT usage. In other words, cultural gender roles foster a gender

divide and digital competencies gap between men and women.

1.3.3   The Revolution and a New Techno-Political Context

On the flipside of the modern nation that he helped create, Bourguiba is also known for

instigating a political atmosphere that suppressed plurality and legitimate opposition. In 1987, his

prime minister, Zine El Abidine Ben Ali took over the presidency after a "soft coup-d'état",

establishing that Bourguiba was unable to continue in his position for medical reasons. Although

Ben Ali continued on Bourguiba's economic and social strategies, he further suffocated the

country with political oppression, media censorship, and a mafia-like system[9] of nepotism

(Bouhaffa, 2011). He also changed the constitution multiple times to meet his political

ambitions, allowing himself to be reelected as president for 4 times, thus staying in power for 23

years. This means that the new generation of Tunisians (those under the age of 25, about half

Tunisia's 11 million people) have only known one president, one regime, and one dictatorship

(Marshall, 2001). According to Angrist (2013), "the fact that the Tunisian population was

relatively prosperous with a high Internet usage rate likely indicated that the country had rising

expectations of its regime with regard to both economic prosperity and political participation

---

[9] The term Mafia System was widely used by the Tunisians but it was seen for the first time in an official document
in a WikiLeaks letter from the American ambassador.
http://wikileaks.foreignpolicy.com/posts/2011/01/13/wikileaks_and_the_tunisia_protests

which were not being met" (p. 549). To the contrary, the Tunisian government was becoming more and more authoritarian and oppressive, while the country was going through difficult economic times with rising prices. As a conclusion, Tunisia had a complex and contradictory ICT dynamic that is not strange to other Arab world ICT landscape (e.g. Tunisia, Egypt, Saudi Arabia, and Syria). On the one hand the country strived to develop its ICT infrastructure and systems in order to generalize access for the population; on the other, the regime maintained a tight control and censorship system over their citizens' use of ICT (El Gody, 2006).

The events of the uprising came as a product of this political, social, and technological struggle. On December 17, 2010, Mohamed Bouazizi, a 26 years old modest street vegetable vendor from Sidi Bouzid, Tunisia, immolated himself to protest constant maltreatment by municipality agents. His actions sparked a widespread uprising in Tunisia that resulted in the overthrow of the Ben Ali regime and continued on to shake long-established regimes in several Arab countries, including Egypt, Libya, Yemen, Syria, and Bahrain (Bouhafa, 2011; Kuebler, 2011; Cavatorta and Haugbolle, 2012; Dupuis, 2014).

SNS, particularly Facebook, have been used by the connected Tunisians during the events of the uprising as a means of communication, mobilization, and support (Zayani, 2015). During the years that followed, Facebook is still continuously used to discuss the new political scene, actors, and parties, and the future of the country in general. Facebook and other media were also used to spread the news and updates about the several sit-ins that took place in the government square "Al-Qasbah". Tunisians continued to put pressure on those leading the country at the time to change both the government and the constitution, which led to elections to form an interim

government and a Constituent Assembly (Nouri, 2013)[10]. Within a few years, the freedom of

speech and freedom of the press indexes raised significantly to position Tunisian as a leading

Arabic country on those two democracy indicators. In this study, I allocate a section to

investigate the effects of the newly acquired freedom on political participation, particularly on

the digital sphere through information technologies.

---

[10] On March, 3rd, 2011, the Prime Minister at the time, Mohamed Ghannouchi stepped down and the interim President Fouad Mbazaa announced the formation of a new government and nominated Beji Caid Essebsi as the Prime Minister. He also announced the scheduling of a legislative elections to take place in summer 2011 (it was postponed and took place in October 2011).

1.4 RESEARCH QUESTIONS

As a conclusion to the above discussed literature, it has become apparent that the digital divide has become more of an umbrella to several underlying issues, factors, and causes of digital and technological disparities (Van Dijk, 2012; Warschauer, 2012). It is true that ICTs have become an integral part of everyday life but their adoption and consumption differ from one social group to the other. Their benefits and advantages also vary depending on several social factors, including the depth of the digital gaps between different social and demographic groups. The digital divide is closely tied to different levels of social inequalities, as those can hinder economic, social, and technological development efforts. Therefore, an examination of the digital divide must be situated within the specific social and political context of the technologies under focus. My dissertation focuses on the Tunisian digital technology landscape in the context of the post-revolution. The setting of my in-depth interview study, Tunisia, is a small country with 11 million inhabitants[11], half of which are under the age of 25 and highly educated. It is one of the leading African countries in terms of ICT, with multiple government initiatives and programs implemented to provide affordable technology and access to all Tunisians. Although the stated purpose of these initiatives was to generalize access to Tunisians all over the country, regardless of geographic location, age, gender, or socioeconomic status, disparities are apparent suggesting a digital divide. My overarching theoretical goal is to investigate the dimensions of the digital divide in Tunisia. My immediate research goal is to explore the intersection of different demographic and social factors with technology access and use. I am mainly concerned

---

[11]Statistics based on the latest CIA facts about Tunisia. Retrieved from:
https://www.cia.gov/library/publications/the-world-factbook/geos/ts.html

with the gender, age, class forces, and their implications for ICT access, attitudes, and usage in daily life and for political participation.

The following research questions will help in guiding this project:

RQ1: What are the implications of gender, age, and class on ICT access and usage?

RQ2: What are the implications of gender, age, and class on attitudes towards ICT?

RQ3: What are the implications of gender, age, and class on ICT usage for political participation?

1.5 SIGNIFICANCE OF THE STUDY

As a result of several consecutive digital and technology initiatives, Tunisia has become highly connected with one of the most developed telecommunications infrastructures in North Africa. However, it is rather risky to take the government numbers for granted. Indeed, most of these statistics are derived from official reports published by the pre-revolution government agencies, which had to maintain a good technological image in order to meet the requirements necessary to obtain trade treaties and financial aid, especially from the European Union. Besides, the data remain descriptive with no in-depth analyses about each communication technology, its penetration in Tunisian households and the extents/nature of its usage. That is why, it is important to conduct academic, non-governmental studies to more closely examine ICT ownership and usage in the post-revolution Tunisia (Zayani, 2015).

I conducted this study aimed at providing much needed in-depth qualitative data about ICT access and use in Tunisia. Second, I aim at making a small contribution to the digital divide literature, especially in the context of Tunisia, a country that belongs to an under-studied region in the field of the digital divide, the Middle East and North Africa. Conducting ethnographic

research studies in Tunisia at this particular moment, is important because most scholars, as well as media and political specialists, argue that ICT will continue to play an essential role in the democracy process in the post-revolution (Castells, 2015; Zayani, 2015). Researchers argue that the governments of many developed countries are not taking advantage of SNS in particular and ICT in general to nurture citizens' political engagement and participation. However, without ensuring ICT access and usage by the whole populations, these recommendations are not only not feasible but will also result in a digitally exclusive sphere. That is why, ethnographic research is necessary to understand the social layers of the digital divide and to identify Tunisian social strengths and weaknesses that could be addressed to reduce the digital gap.

1.6 METHODOLOGY

While there is an ample amount of statistical data that describes ICT ownership and use in Tunisia, I opted for an ethnographic approach for several reasons. The first reason is the capability of ethnographic research to situate the technology within a specific place, and to provide the appropriate tools to analyze the interaction between the technology and the users without assuming the agency of one over the other. Miller and Slater (2000) argued that for a long time, research about the Internet has investigated the technology as a "placeless" (p. 1) device and invoked the need for ethnographic research to understand how the Internet, along with other technologies are assimilated into the everyday life of individuals and communities. In other words, ethnographic research contextualize the technology and respects the particularities of specific cultural, social, economic, and political contexts.

The second reason is related to the existing literature about ICT usage for political participation in Tunisia. The Tunisian Revolution engendered a series of studies about the

Internet and SNS that focus on the Tunisian digital sphere (Zayani, 2015). However, most of these studies are entrenched within a political participation area of research and are more concerned with the participation and effectiveness of the already connected, than with the extent and scope of connection and usage among all Tunisians. In other words, the research about digital media use following the revolution attempts to paint a diagram of the information flow within the online sphere and from the online to the offline sphere. In this work, I am more concerned with the access and usage itself, as well as with the interaction and attitudes of ordinary Tunisians vis-à-vis digital technologies. The focus of my research is on the vulnerable demographic groups including women, the elderly, and people from the lower middle class. I was mainly looking for Tunisians from popular neighborhoods whose socio-economic status can be described as middle to lower middle class. I also focused on middle to elderly age group, as research from all over the world demonstrates a persistent age divide between the elderly and the highly connected youth (Straubhaar et al, 2012; Correa, 2013). Nevertheless, I interviewed a few respondents from younger generations after observing the family dynamics and the involvement of the youth in their grandparents and parents' technology usage.

My point of departure was Sousse, one of the biggest coastal governorates in Tunisia with a population of 676,500 in 2014 according to the Tunisian National Institute of Statistics[12]. I selected Sousse as the point of departure for a series of project, this dissertation being the first. The overarching aim of these projects is to map the digital divide in Tunisia with respect to the socioeconomic differences in the different regions of the country. The post-independence governments focused their development efforts and strategies on the coastal areas of the country, leaving the interior to suffer from significantly high unemployment and poverty rates (Bouhaffa,

_____

[12] http://www.ins.nat.tn/indexen.php

2011; Kuebler, 2011; Breuer and Groshek, 2014). The divides are also obvious within the more developed coastal Tunisian cities. In Sousse, for example, different neighborhoods consist of different socioeconomic classes with different income levels, occupations, and social status. That is why I opted for investigating the divide within one city before the examination of the divides between the cities and regions. I chose the city of Sousse as the location for my ethnographic research for several reasons; (1) because of the diversity of its neighborhoods and the possibility to explore different socioeconomic status communities within the same city; (2) because Sousse is my hometown, which allowed me to easily find gatekeepers and have access to different neighborhoods.

Furthermore, being from Sousse meant that I conducted this research assuming the role of the native ethnographer, which gave me several advantages. On the one hand, my strong familiarity with the linguistic cultural traits allowed for an easier communication with the informants. They were free to express themselves and articulate their opinions and patterns as they do on a daily basis. Second, my familiarity with the cultural and social traits as well as the history of the city allowed for a quick understanding and interpretations of their discourses, which gave way to several instant questions and more fruitful discussions. Kraidy (1999) argues that native ethnography is an appropriate epistemological approach for understanding cultures from within as the ethnographer observes daily life patterns that pass unnoticed and uses ethnographic research to explore and theoretically make sense of those cultural traits. I have personally visited Sousse often during my 13 years of stay in the US. I used my familiarity with both cultures to identify patterns of behaviors and attitudes that are specific to the Tunisian culture. The last phase of this project was the intensive field work during which I used an in-depth interview study to take my observations to the next level and give a space to the Tunisians

in the city of Sousse to articulate, on their own words, those behaviors and attitudes in relation to ICT.

In Sousse, I selected three municipalities: Zouhour (14,786 families), Kalaa (50815 families), and Khezama (42,705 families)[13]. Khezama reflects the complexity of the issue of class in Tunisia more than the other two communities. It has a combination of very rich, middle class, and lower middle class families within the same densely populated geographic area. Zouhour and Kalaa could be described as suburban, mostly middle class and lower middle class neighborhoods also within the same geographic area. Thus, geographic stratification of the classes in Tunisian cities is quite complicated for reasons that will be discussed with further details below. To be more precise, I will state that I have selected "popular" neighborhoods[14] in Kalaa and Zouhour.

As previously discussed in the literature, research studies or even government data that describe class stratification in Tunisia are almost nonexistent[15]. I will attempt to describe the class division in Sousse based on my observation during my ethnographic study and based on my knowledge of the region given that Sousse is my hometown. The concept of class is clear in the mind of Tunisians although formal classifications are unclear. According to multiple sources (Brown and Spilling, 2009; Hasnaoui and Belhadj, 2015), the Tunisian society could roughly be divided into a high social class composed of approximately 20% of the population, and a middle social class that includes the rest of the population (80%). The boundary is very blurry

---

[13] National Institute of Statistics, Tunisia, 2015 Report.

[14] Popular neighborhoods is a term Tunisians use to call a collection of streets that house low-middle class families.

[15] A request was made to the Governorate of Sousse to obtain information about family incomes or class stratification within or across the neighborhoods or the whole region in Sousse were met by the response that no such data or statistics are available.

geographically. For instance a neighborhood like Khezama has houses where rich families live in close vicinity of houses where middle-class and even poor families live.

Nevertheless, I would argue that the lines between the two classes is clear mainly in terms of housing, car ownership, and employment. The upper class usually own their own businesses and are composed of families that are well known in their regions as the communities within one city usually know each other very well. The middle class is much more diverse, it combines people from different professional domains, a wide range of income sizes and family trajectories. I argue that the class lines become even clearer with two main assets that are significant indicators of one's belonging to the middle or the upper class. First is car ownership. It is rare for the low middle class to own a car. The middle class cars are usually European (mainly French or Italian) of a small size and made especially for the North African market to be accessible and affordable by the middle class. As a matter of fact, in my sample of respondents only 3 families owned a car in the popular neighborhoods; all of them were European, small-sized cars. On the other hand, the rich families usually own German luxury cars. That is why the car in Tunisia is a significant indicator of one's social class.

The second asset is the type of house a family owns. People from the rich class usually own a house that is independent on all 4 sides and is surrounded by a private garden. Only the gates of the garden are shared with the adjacent neighbors as shown in picture 1 below. On the other hand, the middle and low-middle class usually share three walls of their immediate house with the neighbors and have no separate garden. This is due to two main factors: the first is that most middle class neighborhoods were built during the 70s and 80s as part of the government housing projects, which resulted in the creation of neighborhoods composed of apartment complexes or neighborhoods with streets of attached townhouses (as in the case of Zouhour).

36

The second factor is that historically some families owned small lands in the rural areas of

Sousse. As the urban development reached these areas, they divided their lands among family

members to build small houses for their nuclear families (as in the case of Kalaa). The

similarities between the housing project neighborhoods and the new urbanized neighborhoods is

that in both cases, the houses are attached with the neighboring families. The process typically

continues with the next generation with children (mostly sons) building on top of their parents'

houses. In fact, another characteristic of the middle class neighborhoods, is that the number of

homes often surpasses the number of families (17,941 houses in Zouhour for 14,786 families

according to the Tunisian National Institute of Statistics). This is due to the fact that people build

houses for their sons (sometimes even before they marry and found a family) on top of their

houses (independent apartments), resulting in streets of two or three story houses as shown in

Figure 2 from Zouhour and Figure 3 from Kalaa.

Figure 1: An example of a row of houses in a rich street in Khezama. The photograph shows the independence of each house from the neighboring houses and the surrounding garden. The picture also shows examples of the cars owned by the Tunisian middle class.

Figure 2: An example of row of houses in a popular neighborhood in Zouhour. The houses are attached to neighboring houses on three sides. The picture also shows the extra stories built by the families for their offspring.

Figure 3: An example of row of houses in Kalaa. While the streets are wider than those of Zouhour, we can still see the similarities between the two neighborhoods in terms of the housing characteristics.

39

I had access through family members who live in both Kalaa and Zouhour. They served

as my study gatekeepers and assisted me throughout my work. I used convenient and snowball

sampling strategies to recruit my respondents. My gatekeepers contacted respondents of their

own acquaintances who in turn forwarded us to members of their families and people they know.

My focus was on adults and older generations of Tunisians, which is why I asked that the

respondents would be more than 30 years old and would be currently living in one of those

neighborhoods. I interviewed a total number of 33 Tunisian nationals, mostly, in their own

family houses in the governorate of Sousse in Tunisia. Using family members as "gatekeepers"

facilitated the access to the households of the respondents where the interviews were conducted.

This was important to allow for the observation of usage and interaction with the technology

available at the household and within family members. The interviews were a social encounter in

the full meaning of the term. Family members of the respondents gathered around us and often

participated in the discussion. I was offered sweets and food and traditional tea in each house I

entered and the conversation took place around the cup of tea while technology devices were

scattered around us (laptops, tablets, and smartphones), creating a crossover between the

traditional and the modern without any apparent conflict between the two.

A few of these interviews were conducted outside the houses, at the neighborhood's

hairdresser or in the middle of the neighborhood streets[16]. Regardless of the place, quite often the

interviews prompted group discussions among family members and neighbors who were

gathered around me and my interviewees. These discussions proved to be beneficial as they

---

[16] Whenever the weather allows it, the often-narrow streets of the popular Tunisian neighborhoods become a place
for socialization. People in Zouhour's neighborhoods, for instance, are accustomed to sit casually outside in the form
of circles by the walls of their houses. They place rugs, stools and chairs in a circle during the late afternoon hours
and until late in the evening in summer time. Each family sits in front of its house and sometimes neighbors join
each other and spend the evening drinking tea and discussing different issues while watching the neighborhood kids
play and people walking by.

revealed group attitudes, agreements and sometimes disagreements about the same issue within the same family and social class.

  I intentionally targeted women and people 30 years and older as well as the elderly (65 years and older). I interviewed different people that belonged to the same family in order to examine the generational divide and to understand family dynamic and techno-dispositions. All respondents were at least 18 years old Tunisian nationals currently living in Tunisia. The interviews were conducted in the national Tunisian dialect and were later transcribed and translated to English. While I had laid out the theoretical basis for an analysis and had specific theoretical inquiries in mind, I am also proposing a grounded theory analysis based on an inductive method approach to examine unexpected patterns of discourse, thoughts, attitudes, and technological behavior. I am committed to report my interviewees' voices and articulations of their own technological access and use. Their negotiations of the technologies' values and influence on their lives and their society stretched beyond the theoretical framework that guided the questions of my interviews. Therefore, I left my analysis open for possible theoretical and conceptual analyses grounded in the ICT experiences and narratives of my respondents.

  During the interviews I started from overarching questions on technology ownership and usage. I then explored questions of attitudes towards the technology, its role in their daily and social life, and their tendencies to participate in the new Tunisian political atmosphere with or without the use of ICTs. Some of the questions were borrowed from the respondents' question guideline used in the in-depth study conducted by RTF researchers for the City of Austin during spring 2011, which aimed at measuring ICT use and the digital divide within the Latino community of Austin (Straubhaar et al, 2012). Other questions were specifically designed for the purpose of this study. The interview guideline included questions related to (1) demographics

(age, gender, work, place of living…); (2) ICT and SNS access and usage (ownership of technologies, time spent on the Internet, types of websites and Internet services used on a daily basis…); (3) attitudes towards ICTs in general; and (4) political participation attitude and behavior (memberships in political parties, participations in political conventions and events, voting in past elections and intention to vote in the upcoming elections…).

I piloted my interview questions with 6 respondents who matched the criteria of selection for this project (older women and men from suburban areas of Sousse) in order to test the reception and effectiveness of the questions in generating discussions. A few initial questions were eliminated, such as the income question[17], and other questions were added to the list as they provided a basis to ask other key questions and generate fruitful discussions. For example, I added questions about Skype use as many families from the suburban areas of Sousse have relatives and children living abroad, mainly in Europe. When asked about their ICT and Internet use, the respondents immediately started talking about Skype and how it facilitated communication with their relatives who live abroad. This provided me with the opportunity to ask questions about their digital and technological proficiencies and the help they get from family members to either have regular Skype video or audio calls or to learn how to make these calls and hold a Skype conversation on their own.

---

[17] Income is a taboo concept in the Tunisian society and all 6 respondents were puzzled that I would ask such a question for a formal interview.

Chapter 2: Social Capital or the AliBaba[18] Cavern

of Techno-Capital

Cultural and social capitals are two of the terms I encountered often in my examination of

the literature regarding political participation and the digital divide. Several digital media

scholars argue that the concepts of social capital and political participation have a mutual

relationship. On the one hand, using the Internet and other information technologies for political

participation is related to the reproduction of social and cultural capital. On the other, greater

social and cultural capitals can themselves translate into political action and participation

(Livingstone and Lievrouw, 2002; Ellison et al; 2007; Skoric, et al, 2009). The two concepts

emerged immediately as a suitable theoretical framework to decipher the complexity of my

respondents' patterns of access and usage that could not be explained with the simple

examination and analysis of demographic and structural factors. Thus, this section analyzes the

influence of social and cultural factors on ICT usage based on the respondents' narratives of their

techno-related behavior and modes of usage. I start by laying the theoretical ground through a

discussion of the major capital related social and technological concepts that guide my analysis.

2.1 PIERRE BOURDIEU AND THE MULTIPLE LAYERS OF "CAPITAL"

Through his research on society's modes of reproduction, Pierre Bourdieu, an influential

French sociologist came to the conclusion that in addition to economic capital, there are other

forms of capital that situate individuals hierarchically in a specific social order. First on the list is

---

[18] Ali Baba is a story from the "Arabian Nights" folk tales. He is a poor woodcutter who finds by coincidence the cavern of the 40 thieves with immeasurable treasures. I am using it as a reference to what I believe is an uncovered and under-used wealth of techno-resources, as the analysis will demonstrate.

the "social capital", which refers to the durable network of relationships and acquaintances acquired by individuals (1985, p. 248). According to Portes (1998), "Bourdieu's definition makes clear that social capital is decomposable into two elements: first, the social relationship itself that allows individuals to claim access to resources possessed by their associates, and second, the amount and quality of those resources" (p. 2).

Bourdieu developed this concept while analyzing the tendency of the social elite to maintain their social status and the exclusiveness of their circles. However, many sociology and media scholars found in "social capital" a guiding conceptual theme to understand the transfer of resources and power from one individual or one group to another not only in privileged communities, but also within the underprivileged and the least powerful of social groups (Coleman, 1988; Putnam, 1995). This transfer results in the accumulation of other forms of capital such as the cultural capital, another concept developed by Bourdieu to describe non-economic factors that influence people's hierarchical status within a given society. These factors are culturally symbolic, and include taste, skills, credentials, styles of clothing and speaking, and so on. Each set of these symbolic elements determines the collective identity of a social group and signifies belonging and membership to a social class rather than another. Straubhaar *et al.* (2012) contend that cultural capital is acquired over time through long-term investment in time and education, which result in social mobility through generations. Bourdieu distinguishes between three forms of cultural capital: embodied (speech or skills), objectified (material belongings) which value is set by cultural norms, and institutionalized (education, credentials and qualifications), which is the cultural capital most pertinent to this research study.

While cultural capital involves the set of skills and material belongings individuals acquire over time, the attitudes and perceptions that drive their behavior is described by

Bourdieu as "dispositions." A set of dispositions that individuals develop through the course of their time is called habitus. The habitus explains diverse groups' modes of unconscious navigation of daily life, and the attitudes individuals develop towards certain objects not because of conscious reasoning but because of their class habitus. Overtime, a group habitus determines what the individuals belonging to that group can or cannot do (Rojas et al, 2012). Bourdieu pointed out that with time, people (of a certain social group) tend to perceive their attitudes about certain objects as "natural" rather than cultural. The value of habitus as a concept stems from its theoretical ability to explain the reproduction of social structures. For example, studies conducted on certain racial groups demonstrated that when a specific group sets an educational achievement limit to itself, it tends to hold itself and the next generations within that limit. For example, studies conducted on Latino communities in Texas demonstrated that Latinos developed a class habitus that views high school graduation as a life accomplishment in itself. Thus, newer generations of Latinos continue the reproduction of the previous generations' social structure- by remaining a working class group (Straubhaar et al, 2012; Rojas et al, 2001). The orientation towards reproducing social structures may take place even with more cultural capital, or resources, available to the newer generations.

Therefore, while cultural capital may function as an agent of social mobility, class habitus may function as a barrier that hinders the effectiveness of the resources available to achieve upward mobility. That is why Dumais (2002) stresses on the importance of combining the analysis of an individual or a group's capital (the resources available to them) with a careful examination of the habitus or the individual or group's tendency to use those resources. She criticizes educational studies that consider cultural capital without habitus explaining that "habitus, or one's view of the world and one's place in it, is an important consideration in trying

to understand how students navigate their way through the educational system. Studying cultural capital while ignoring habitus leaves Bourdieu's theoretical framework incomplete in its practical application" (p. 45).

According to Bourdieu (1984), practice (social action) is the product of the interactions between the dynamic triad of capital, habitus, and field. The latter refers to the space where each social group strives to acquire and maintain resources. Each field is tied to a specific type of capital, for example, there is a strong correlation between cultural capital and the field of education (Bourdieu, 1985; Dumais, 2002; Rojas et al, 2012). Bourdieu's concepts provided digital divide scholars with a theoretical framework to explore underlying social factors that hinder effective use of the Internet and other digital technologies. The growing complexity of technological access, usage and social factors that affect the two, prompted these scholars to develop another concept - techno-capital, a form of cultural capital that depicts the collection of resources and strategies used by individuals for meaningful Internet usage (Rojas et al, 2004; Robinson, 2009; Straubhaar et al, 2012; Lu and Straubhaar, 2014).

Rojas et al (2012) examined how habitus affects Austinite communities' investment in the field of education and ICT access and skills, i.e. techno-field, which they describe as a structured space that hosts the interplay between human agency and other social factors (political, economic, social, cultural, historical…). Rojas and her colleagues concluded that communities' investment in the techno-field depends greatly on their dispositions to technologies or "techno-dispositions." For example, an individual will be less likely to use the Internet or the computer when there is a prevalent group attitude that ICT usage is irrelevant to their lives. On the other hand, positive attitude towards the technology and its relevance will lead to time and resource investment in learning and mastering its usage (Rojas et al, 2012). Techno-capital and

techno-disposition provide an analytical nexus through which to examine my respondents'

modes of interaction, involvement, and usage of the technologies available to them. The concept

of techno-disposition is especially constructive for understanding the lack of usage despite the

techno-capital available to the respondents. Figure 4 summarizes the interactions between the

different types of capital. It demonstrates how individuals accumulate cultural capital, which in

turn leads to the development of techno-capital whether directly (as in the case of education) or

through the intermediaries of class habitus and techno-dispositions.
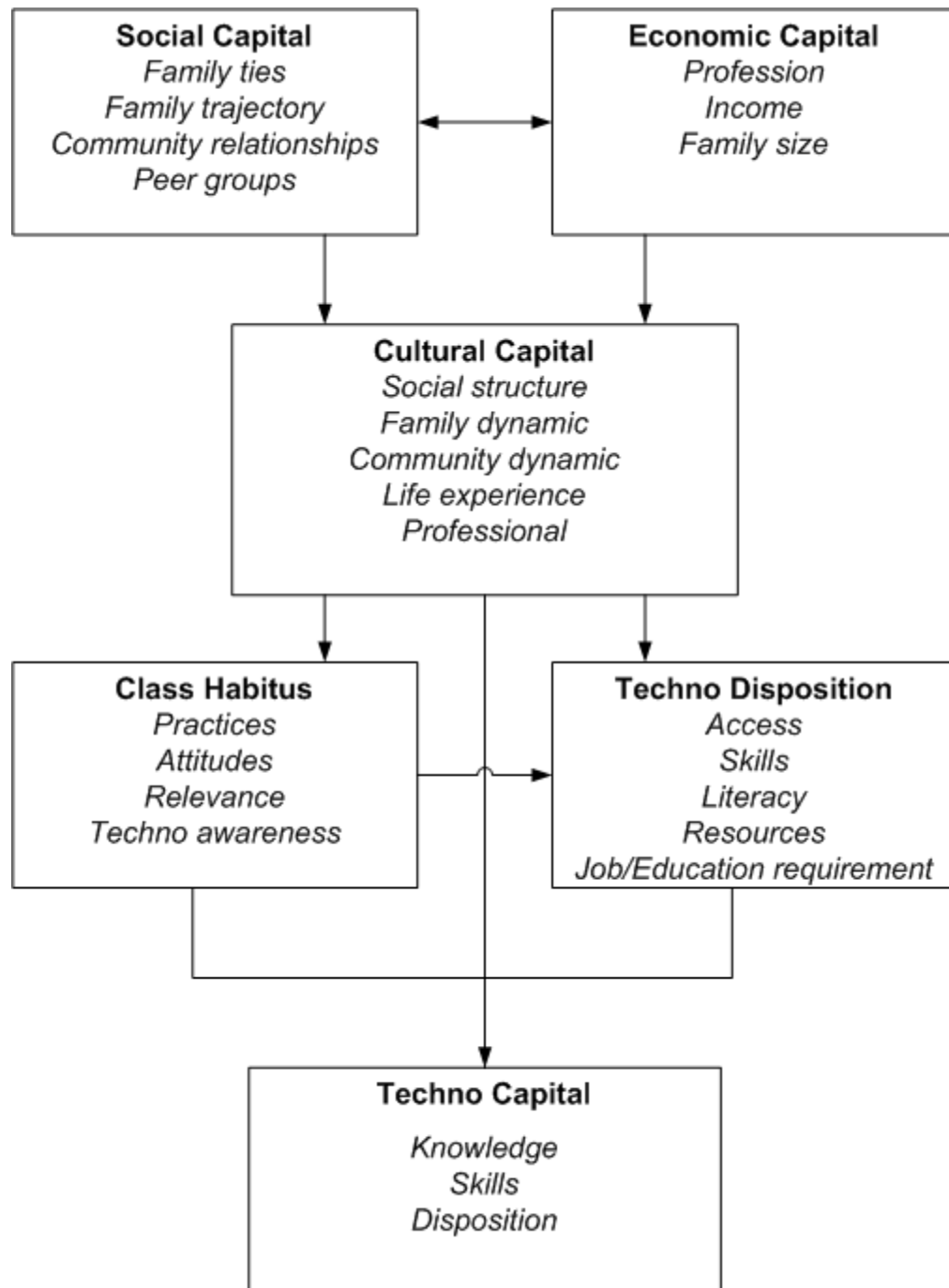
Figure 4. The interactions between the different types of capitals based on Bourdieu (1985), Rojas et al, (2001), and Straubhaar et al, (2012).

My aim was to combine the respondents' narratives with a theoretical analysis to describe the culture of digital media use in the popular neighborhoods of Sousse. I played the role of participant observer and used: (1) a laptop to record the interviews for a verbatim documentation

of the informants' discourses (and the background noise); and (2) written field notes for a personal documentation of the cultural aspects of the setting and the interactions taking place around me that the audio record could not capture. The home itself was one of the most important layers of the informants' ICT usage. I took notes of where and how the technology was placed, and how the informants interacted with it. The second layer, which emerged as I was conducting the first interviews, is the interaction within the family and between the informants and members of their community/neighborhood. I conducted my first interview in the home of an elderly lady who, I was told, lives by herself. When I arrived to the house, her daughters and grandchildren were all there spending the afternoon together. The lady insisted on doing the interview in her living room with all of them around us.

While, I initially felt uncomfortable with the crowded setting, I soon realized that this was a valuable opportunity to gather a wider range of cultural data regarding technology use. Spradley (1979) argued that in ethnographic research, observations and informal, friendly conversations produce an ample amount of data. Spradley's argument turned particularly true with the productive (from an analytical standpoint) conversations that took place between the family members and my key informant. This setting took place in almost all my subsequent interviews; some inside the house and others sitting outside by the walls of the houses of my interviewees, in the middle of a busy neighborhood street. Both the family and the community dynamic play a significant and influential role in the informants' technological actions and interactions as shown in this analysis.

During the parts of the interviews that relate to this section, I used umbrella questions about ownership and usage and moved on to more focused questions about usage and learning choices, attitudes, and resources, which produced three main domains of analysis; (1) the

49

relevance of the technology in my respondents' lives; (2) the degree of investment in learning and acquiring techno-competencies; (3) the resources available to them to acquire techno-competencies and techno-capital.

2.2 ACCESS AND OWNERSHIP

Despite the fact that digital divide research has moved beyond the question of access as the determinant of digital gaps (Warschauer; 2002; Van Dijk, 2005; Straubhaar et al, 2012), the issue of access is still one of the key dimensions of the divide. Usage is dependent on access; indeed it is often analyzed as "the first divide" (Vehovar et al, 2006). Therefore, my first issue of investigation was ownership and access. I asked my respondents whether they own any kind of technology. I used technology[19] in its broadest term intentionally as I was curious what the term means to the respondents. It was not a surprise that for almost all my respondents, regardless of their age, gender, or education level, the term generated a list of digital and information technology devices: "I have a PC and a smartphone" said Molka a 32 years old lady from Kalaa. The list was more extensive for Naima, a 52 years old lady from Zouhour: "I have my own tablet and smartphone and we have a computer too." Similar to Naima, many of my respondents had almost all the essential ICTs and many included Internet connection as one of the technologies listed: "I have a tablet, a laptop, and phone. I also have a desktop computer and Internet connection at home." Said Yasmine, a 35 years old high school teacher.

The lack of an access gap within my respondents does not strike me as surprising. I have come to witness first-hand the widespread abundance of technology devices and Internet connection in the Tunisian society. In fact, the respondents themselves are aware of the

---

[19] The term I used was *"Technologie"* in French, or its close Tunisian translation *"Technoloogia"*

widespread penetration of ICTs; "We have everything" was a phrase I heard from many respondents. This observation is best explained by *the process of diffusion*, which is defined as "the acceptance over time of some specific item- an idea or practice, by individuals, groups or other adopting units, linked to specific channels of communication, to a social structure, and to a given system of values, or culture" (Katz et al, 1963, p. 237). Technological devices have indeed become part of the daily life in Tunisia. Following the first ICT initiative launched by the Ben Ali government in the late 1990s, "The Family Computer", the computer slowly integrated Tunisian houses and the Internet soon followed path without a particular end-goal or immediate application. As the technology became more and more affordable to all ranges of the Tunisian middle class[20], the computer became a common household technology device bought because "everybody has it." Aya, a 58 years old high school teacher from Kalaa sums up the technological diffusion in the Tunisian household as: "We have everything that is part of the daily life" she told me when I asked her whether they have any technologies at home; "Nothing that is extraordinary" she added.

The above is especially true when part of the household consists of young and teenage children. Katz *et al.'s* (1963) definition of the process of diffusion acknowledges the social influence in the process of adoption of a new technology by the members of a certain group. In the case of the Tunisian families, children play an important role in the computer and Internet diffusion process. With the affordable "Family Computer" act, many families from middle class neighborhoods acquired the computer. Emulating peer behavior pushed children of other families to put pressure on their parents to acquire the computer as well. Rogers (1995) divides this

---

[20] Recently a few Tunisian scholars adjusted the poverty line measures to more realistic standards as the government had set the bar very low to determine poverty. These scholars found that the poverty rate was still significantly low compared to rest of the MENA region.

process of adoption to three stages: the knowledge stage, the persuasion stage, and the decision stage. Communities in the Tunisian society are grounded in strong family and neighbor ties. Thus, the late adopters of the computer had quickly become accustomed to seeing and hearing about it within their communities. Children accelerated the decision-making through persuading their parents to purchase the computer, which is a recurrent pattern in the Internet and computer diffusion research, regardless of the cultural context (Kiesler *et al*., 2000). Digital divide research showed that families with children are more likely to be engaged with technologies than households without children (Helsper, 2008; Correa, 2013). In her examination of the bottom-up flow of techno-competencies within Chilean families, Correa found that children played a key role in their parents' adoption of technologies. They used different persuasion strategies to convince them to acquire the technologies. She described her sample of young people as opinion leaders who promoted the diffusion of ICTs in their families.

As a matter of fact, out of all the families I interviewed, the only two houses that did not own computers were an old lady living by herself and an elderly couple also living by themselves without children at home. The case of Habib and Ahlam is particularly interesting because they belong to the only household that could easily be classified as upper class and rich. Yet, they did not own technology or have access to the Internet at home. Habib, a 74 year old man, is a very well off owner of many businesses across the city. Habib did not have computers or Internet access at home. "It's only me and my wife, all my children are married now." He explained, while implicitly stating that computers are for younger people. His wife, Ahlam (71 years old) further elaborated: "we used to have a computer that we used to see my daughter in Germany. We don't have it anymore… now my youngest daughter comes with her computer and "connects" us with her sister." In addition to confirming the fact that children are an important

factor in owning ICTs, Ahlam's statement also prompted me to rethink my definition of "home access."

The second observation is that while Habib and Ahlam do not, *themselves*, have computers or Internet access, their daughter provides them access, *at their home*, whenever they need it with her portable computer and mobile Internet device (USB drive)[21]. Similarly, another respondent, Yosra, an elderly lady living by herself in Zouhour, told me that she doesn't "have anything". However, as I was interviewing her, there was a tablet lying right next to her. It belonged to her granddaughter who was there spending the afternoon with her along with her mother and her aunt (Yosra's two daughters).

Another respondent, Hamed, a 55 year old electrician from Zouhour, owned a computer at home but did not have Internet access. Yet his sister's house was open to him whenever he needed to use the Internet. "I don't have Internet connection yet. Wahbi (his 11 years old son) is too young to have Internet connection now. When he needs something for school we go to my sister's house, she has Internet connection at home." When I asked him if he ever uses the *publinet* (the Tunisian cybercafé), he thought for a second then responded: "No. I never needed to, my sister has a printer[22]." His response shows that he understood my question as being concerned with where he prints his son's research rather than concerned with access to the Internet. It was a natural behavior for him to use his sister's house for Internet connection.

It is obvious that the close family dynamic in Tunisia greatly shapes my informants' technology and Internet access. It is a cultural trait that is deeply rooted in the historical

---

[21] In Tunisia, Internet providers offer yearly Wi-Fi Internet plans that require a landline phone, as well as mobile Internet connection plans via USB sticks. Yearly Internet plans cost about $175. I bought a mobile Internet plan in the summer of 2015 and both the contract and the USB drive cost me 20 TND (about $10). The offer also came with unlimited free access from 9:00 pm until 8:00 am. The costs of both plans are affordable to most Tunisians.
[22] Publinets in Tunisia are widely used for printing out, scanning, and copying documents from the Internet as not all households with Internet access own printers and scanners and similar devices.

trajectory of the Tunisian society. Family life in Tunisia used to be organized based on kinship and tribal structures. The family used to include extended family members who live in a big house or a collection of small houses that share a big courtyard in the middle of the family housing. The Bourguiba regime strongly opposed the kinship and tribal structures and invested social and political efforts to dismantle these forms of family organization. Bourguiba's government efforts coupled with the social and economic development during the period following the independence (1956) until the 1980s succeeded in reducing tribal and kinship. Today very few remnants of the tribal structures remain in Tunisia, primarily in the north and south west regions of the country, albeit, with much less power over the family relationships compared to the first half of the 20th century (Nelson, 1988; Charrad, 2011). These social changes along with foreign influences transformed the country into a cosmopolitan society. The extended family ties slowly began to diminish, especially in the urban areas to become consistent of the nuclear family with parents and their children only (Nelson, 1988).

That being said, other forms of extended family solidarity are still present in the urban areas of the country. Many lower middle class neighborhoods have a concentration of extended family members living in houses that they rent or buy near each other, and sometimes in apartments on top of each other. This was the pattern in the three neighborhoods where I conducted my interviews. My Kalaa neighborhood interviewees had mostly cousins and second cousins with second and third generations living within the same area. The same applies to Zouhour, which was built by the Tunisian government as an affordable housing project[23]. Consequently, poor migrants who moved to Sousse from the interior regions of Tunisia found in neighborhoods like Zouhour a place to start a new life with the modest means they had.

---

[23] Discussion of the cheap housing neighborhoods in big cities

According to Nelson (1988), Tunisian migrants settling in urban working-class neighborhoods all over Tunisia preserved kinship-like structure of living. They chose to settle next to each other and their children choose to remain close to their families as they form families of their own. These migrants found in each other's proximity a source of social capital and much needed social support to survive their transition from the rural to the urban life.

To better illustrate this Tunisian social phenomenon, I am going to describe one of the families I interviewed. The family consisted of 3 generations living in houses facing each other. Yosra said: "I used to live in Bir Chobbek (another popular neighborhood in Sousse) and I switched houses with my son. I gave him my house and took his house because it is "by" my daughters." Yosra's younger daughter, Naima, lives a few blocks away from her while her older daughter, Wafa, lives right across a narrow street from her. Wafa's house consists of two separate independent stories. One of her brothers (one of Yosra's sons) rents the upper story from her to be close to his mother and sisters. On the same street, there is another house with three independent stories, owned by Wafa's daughter who is renting the two upper stories to her two brothers, each living in his own apartment with his own family. It is simply a cluster of 3 generations of nuclear families from the same family. These clusters are becoming the norm in popular and middle class neighborhoods in Tunisia, not only because it is cheaper to build an apartment on top of the parents' house than to buy a separate house, but also because family ties and solidarity are rooted in the essence of the Tunisian social structure.

These family clusters add another layer to the complexity of the issue of ownership and access, and proved to be essential to the understanding of both concepts. For instance, they make it difficult to affirm that Habib, Ahlam or Yosra do not own or do not have access at home when their children and grandchildren are always with them in their house, with their technologies and

55

mobile Internet devices. The same is true for Hamed who does not have access at home but can walk to his sister's house whenever he needs to use the Internet. In all these cases, we can detect a form of home access allowed by the social capital that these family members represent to each other. Thus access extends beyond the walls of one nuclear family house to include all the households of the same family. In other words, each family cluster becomes a vehicle for ICT access in a dynamic that could be called the family diffusion of digital technologies. It is a form of techno-disposition that boosts and increases the cultural capital of middle class families who can rely on their family ties whenever the resources are limited whether for financial or for relevance reasons.

2.3 PURCHASE DECISIONS

The relevance construct was crucial in understanding the purchase and ownership decisions, which proved to be more complex than I envisioned. Some of my informants acquired technology because it was cheap and they could afford it; others can afford it but made the choice not to have it, as in the case of Habib the multiple-business owner; while others acquired the latest technologies through members of their families. Yahya, 36, a self-described technology savvy, reported that he always owns the newest technology for no particular reason: "We have a computer, TV, a tablet, and telephones of course, smartphones. We have everything. Even the Dish (TV satellite) is in the latest technology." Yahya is the only informant who reported acquisition of the technology for his interest in it. Most of the houses I entered had the latest technologies, whether information technologies (computers, tablets, smartphones) or TV and satellite dish, for specific purposes and to accomplish specific tasks.

A few of the informants bought a computer to provide their children with Internet access for school use, as in the case of Hajir (58 years old) who explained: "My sons have this (pointing to my laptop)[24]. We got it for them for school. My son uses it when he's in school (she uses a word that refers to school semesters), he works on it and prints out papers and everything. We don't have Internet connection but their "new phones" are all connected to the Internet." For one of the ladies, the computer and the Internet was her way of keeping her teenager away from the street. Basma, 55 from Kalaa, explained: "I have "the one you carry" (referring to the laptop) and a computer (referring to the desktop) for my sons. My sons use it the most. And my daughter too. They're always on it. As soon as one is done, the other one takes his place. To tell you the truth, I like it that way… it's better than hanging out in the streets all day long. At least, I know where they are and what they're doing. They listen to songs, talk to their friends and that's it" . She then explained why they have a newer laptop in addition to the desktop: "My son had one like this (pointing to my laptop), he used it to study. When he moved to Qatar, my husband bought me another one so I can talk to my son with it. So now my other two sons use it all the time and I use it to talk to my son in Qatar from time to time."

In this last comment, Basma introduced one of the most often reported factors for computer ownership and Internet access at home, which is to keep in touch with family members who live abroad. In 2015, the Migration Policy Institute[25] reported that an estimate number of 1,223,000 Tunisians live abroad, with a little more than one million of them settling in European countries. This is a significant fraction of the total population estimated at about 11 million in

---

[24] Hajir did not know what the laptop is called and she continued to refer to it as "this" while pointing to my laptop throughout the conversation.

[25] http://www.migrationpolicy.org/article/revolution-and-political-transition-tunisia-migration-game-changer

2015, according to the CIA World Factbook)[26]. This means that most families in Tunisia have at least one immigrant member living abroad. They come from all ranges of social classes and regularly send remittances to their families in Tunisia. As of 2013, an estimated 2 billion US dollar were sent to Tunisia from Western countries in the form of immigrant remittances (Migration Policy Institute). In addition to the money remittances, Tunisians living abroad often bring a diversity of home products and devices to their families[27].

Often times, it is the immigrant children who provide their families with computers (or tablets) so they can talk to them when they go back to their host countries. Several of my respondents who had modest jobs and lived in modest homes but had the latest technologies, acquired them through their migrating children. The latter either bought new devices specifically for their families in Tunisia, or left their personal technologies before they went back to the countries they live in after a vacation stay in Tunisia. Hadir (59 year old stay at home mom) revealed that their household ICT devices were a mix of items they bought and items that her son who lives in Austria gave her: "We have a tablet and a computer. I have the old phone, I don't want the new one because I like the old ones because when I get mad, I throw it on the wall and buy a new one (she bursts in laughter). Sometimes my son leaves whatever he has for us when he goes back to Vienna. He leaves the phone for his sister or the tablet. I bought the computer." In line with Hadir's report of technology acquisition, Kahina (57 year old a stay at home mom from Zouhour) expressed proudly her constant adoption of the latest technologies through her three children who live in different countries in Europe. She stated: "My daughter brings me

---

[26] https://www.cia.gov/library/publications/the-world-factbook/
[27] This is especially true for those who travel back to Tunisia by ferries since they can bring their cars along and can bring as many gifts and belongings as their cars can carry.

everything, everything that came out, she brought it for me as soon as it came out. We always had everything that just came out. My kids bring me everything."

The remittances and the technology device "gifts" from the children living abroad add a few other dimensions to the complexity of the relationship between access, social class, and income in Tunisia. First, the findings discussed above are in agreement with literature from Western studies in regard to the factors informing home computer purchase and usage. Several studies revealed that the computer is mostly introduced to the home for specific reasons, whether it's merely entertainment or for schoolwork, especially in homes with school-age children (Fairlie and Robinson, 2013). At this point, I have to note the absence of income related purchase motivations in my informants. For instance, none cited the need to perform activities that increase the family's income or to simply work from home, which are factors that often drove technology purchases in low income households in other cultures (Bakardjieva, 2005). Second, my informants' home computer acquisition counter the Western-based research findings that technology ownership is positively correlated to income (Ragnedda and Muschert, 2013). In fact, while the respondents who live in the low-income neighborhoods owned the latest technologies, the ones who lived in the more privileged neighborhood (Khezama) reported limited ownership or none at all. These findings support the new wave of digital divide research, which has driven attention away from the dichotomy between the haves vs. the have-nots, to other forms of divide relevant to Internet usage and digital literacy (Warschauer, 2003; Van Dijk, 2005; Jenkins et al, 2006; Straubhaar et al, 2012; Ragnedda and Muschert, 2013). The following section addresses these two main points: usage and the acquisition of digital literacies from a techno-capital standpoint.

2.4 TECHNO-CAPITAL

White-collar jobs and formal education emerged immediately as a source of techno-capital. A few of my respondents worked as educators, which required them to use computers and the Internet. Baraa (56 year old secondary school administrative staff) described his learning experience at length:

> *At first, I learned… it was 2000-2001.. yeah... at that time, there was an idea that computer is going to be introduced to schools, so then I learned. When I tell you I learned, this is how I learned... that period in the school where I was working, the director brought a computer. So I went to a private computer science school. I registered for 20 hours. I used to go study in that school, then go to my office and apply what I learned… I practice on that computer (the one the director brought.) I used to go even outside of work hours to practice more. That's how I learned. Then they organized a lot of training workshops for us. I went also to one-day workshops with professors, and then I started to train and teach my colleagues. I started to... I led workshops for school directors (principals).*

Baraa meant to report his own techno-capital experience, however, he unintentionally described the introduction of the computer and the Internet at the educational institutions in Tunisia during the late 1990s.

The government implemented several initiatives to equip schools in urban areas with Internet connection, and provide those in rural and remote areas with mobile computer laboratories (mobile customized computer vans). Official numbers suggest that by the year 2000 all secondary schools were equipped with Internet connection. However, training the teachers to use the medium was slower than the rate at which the equipment became available. This was

done by training small groups of teacher and then snowballing the skills from the trained teachers (called teacher-trainer) to colleagues in their school districts (Hamdy, 2007). Baraa described this process from a personal experience. He learned through a combination of formal courses that he took on his own, workshops provided by his work, and then he invested his free time to master the technology. As his competencies became advanced, Baraa became what is called "training trainer" (Hamdy, 2007). His techno-capital was a direct product of his cultural capital as his work and his occupation gave him an immediate purpose and resources to develop techno-competencies.

The case was somewhat different for my younger informants. School provided them with basic techno-competencies but they developed or maintained those competencies at home, alone through self-experimentation, or through the assistance of family members. Abir, a 36 year old stay at home mom with an assistant pharmacist diploma explained: "I learned by myself. I learned how to use the computer during my college years... but the Internet... I learned the Internet... I learned how to use the Internet at home." In line with Abir's experience, Yasmine, a 35 year old high-school teacher, took computer courses in college then expanded her techno-competencies at home. She said: "I learned the Internet during my college years. It was part of my education... you know my university is called: "Math-Physics-Computer[28]" so I learned to use the computer and the Internet. That's how I learned the basics... and then I learned a lot more by myself." (She emphasizes the word "a lot" with her tone). Later on, she explained the role of her husband in developing her techno-capital: "There is always something new I don't know how

---

[28] This is a program offered on many campuses in the country. Students learn all three subjects (math, physics, and computer-science) for the first two years then major in one of them for their junior and senior years. This program is designed for high school teachers. In other words, graduate of this program typically apply to become high school teachers unless they go into graduate education.

to do. I ask my husband to help me with technical or Internet problems, you see? Sometimes he would help me and sometimes he pushes me to do it, he tells me: you're a teacher, you should try to figure it out on your own. I would try and then beg him (she laughs) to just do it for me and he would give up and just fix the problem for me. But then, I know how."

Ayat (32), also a college graduate currently unemployed stay at home mom, reported a very similar experience to that of Yasmine's: "I am fine navigating. I can search anything, I use keywords to search... and search just fine. I studied "computer" at school, you know? Just one year, one hour per week. I learned by myself to use the Internet by searching... and my husband would help me sometimes... he would tell me to do this or that and next time I know how to do it. Even my 5 year old and my 2 year old know how to use it. They see us using it... and their father has "accustomed them" to the phone." It is worth pointing out how the two young children are also acquiring techno-capital at a very young age in their home through their father and through watching their parents use the technologies. Ayat also mentioned that her husband signed her up for job qualification exam/competitions[29] online as she is looking for a job in her field: "I signed up online for a "*concours*" (French for job exam/competition), but it was my husband who did it for me. He signed me up for a "*concours*" to recruit primary school teachers. He told me there was a "*concours*" and I gave him my information and he signed me up."

The similarities between the two households are striking. In both cases, it is the male of the family who is always ahead in his techno-competencies. The wives, while competent to a certain extent, turn to their husbands' assistance. Unfortunately, I did not have the opportunity to interview Ayat's husband. However, Yasmine referred me to her husband who is Yahya, the only technology-savvy person in my group of informants. While I was interviewing Yahya at

---

[29] Public sector jobs often require qualifying competitions organized by the government and state entities or companies. Most Tunisians use the French term "concours" to refer to these competions.

their neighbor's home (that's where he was when I asked Yasmine if I can interview her husband), his children were there too. The son was playing with another kid, while the daughter (5 year old) was given her dad's tablet in order to stop her from perturbing him during the interview. However, she kept coming back to him during the interview asking him to help her out with different tasks. Although we were in the middle of the interview, Yahya always took the time to address her technology problem and his assistance was always rather instructional, in other words, he was giving his daughter instructions on how to fix the problem rather than fix it for her. For example, on one occasion he told his daughter: "I just showed you this, look, here, you click on this and then click on this before you get to the front (referring to the main screen)."

It was an important observation because Ayat also reported that her husband "accustomed" her children to using the phone. I am using the word accustomed as the word that comes closest the Tunisian word Ayat used, which means both letting them use the phone and teaching them how to use it at the same time. Thus, in both households, the husband is the main source of techno-competencies for the whole family, and is the one who domesticated the technology in the home setting. This finding is in line with several digital divide studies, which revealed that there is always a gap (varying in depth) between males and females (Rojas et al, 2001; Stanley, 2001; Van Dijk, 2005). Van Dijk (2005) explained that the household chores are still primarily a female task even in some of the most advanced countries of the world. Therefore, the women of the households have less time to practice their Internet and computer skills, and consequently, they develop their skills at slower rates than their male counterparts. More recent studies are still reporting gender-role constraints as one of the causes of gender digital use gaps (Straubhaar et al, 2012; Lu and Straubhaar, 2014; Ben Hassine, 2014). This is appears to be the case in Tunisia as well. Although Tunisia is recognized as the leading Middle

Eastern country in terms of gender equity and women's rights, it is still a patriarchal society with well-defined gender roles. Chores and children caretaking are the women's job, which leaves much more time for the husbands to develop his techno-competencies compared to their wives. In fact, the findings of this research reflect Ben Hassine's study (2014), which found that gender roles in Tunisia significantly slowed women's acquisition of techno-competencies. It is important to mention that Ben Hassine's sample was limited to university students, faculty, and staff.

When the relationship between males and females is not spousal, as in the case of siblings or child and parents, those who have more schooling or are of younger age are the main technology resource regardless of their gender. Farouk a 30 years old high school dropout, found in his siblings, including his younger sister, a reliable source of techno-capital as he explained: "Nothing is difficult and you can research everything that you want to find. If I get stuck I ask my little sister, she's in high school, she shows me things. My brother taught me to use the computer and then I learned the Internet by myself." Farouk's brother provided him with computer-competencies that he used to acquire even more techno-capital on his own. His little sister functions as a tech-support system and thus she is unconsciously helping him expand his capital.

Nourane (a 74 year old retired lady) described how she acquired techno-competencies from her niece: "I actually wanted to take courses in computer and the Internet and then I found it to be easy to use, easy to understand... so my niece took courses, she gave me her lessons, I copied them down and I started to follow them, and I found it really easy. So I didn't take courses." Aya, the 58 year old high school teacher from Kalaa, had a similar experience as she learned from a relative whom she hosted for a while: "A guest came to live with us for a while

64

and she taught me how to use the computer. I like to use computers. I used to use it for hours. Now not as much. I don't use the Internet as much. My niece graduated from college with a Master's degree in computer science and she lived with us when she was studying and she taught me a lot about the computer and the Internet and how to use them. I'm very grateful to her."

What is most interesting about the case of Aya is that she is the wife of Baraa the "training-trainer." Both are high school teachers, yet she learned at home not at work. She explained that she took Internet workshops but it was a few years ago (not as soon as the Internet was introduced to schools) and she reported that the workshop was for specific Internet usage such as accessing the recently transformed educators' website, or how to create social networking sites accounts. The couple illustrate the slow pace in which training teachers in Tunisia took place, which prompted them to use their own resources to learn, such as paid computer classes as in the case of Baraa or family members as in the case of Aya.

Whether it's Aya and Nourane, or the respondents who were taught by their kids or siblings, most informants acquired their techno-competencies through their relatives who themselves acquired techno-competencies through formal education. It is an interesting example of the intersections of techno-capital, cultural-capital, and social-capital. As new generations acquire cultural capital through education, their relationships with my respondents prompt them to transfer one of the forms of their capital- their techno-competencies- to my respondents, and thus the latter became techno-competent through their relatives. Consequently, my informants' social capital becomes embodied in the techno-competencies they acquired through their relationships with somebody who has acquired techno-capital.

One of the cases that perfectly illustrate the intersection of techno-capital, cultural capital, and social capital was Hamed's, the 55 year old electrician from Zouhour who uses his sister's

house for Internet access. He has a computer at home that he bought for his son but does not want to have Internet connection until his son, who is 11, is older. He noted: "Wahbi (his son) is too young now. When he grows up I will get him Internet connection." However, his son currently has to perform homework tasks that require him to use the Internet. Thus, Hamed found in his sister's house all the resources he needs to help his son with his homework as he described: "Sometimes, Wahbi needs to do something for school, so he needs to find information or create a research project… so we go to my sister's house. She has Internet connection. I don't know much on how to use the computer or the Internet so my nephew shows me everything. He shows my son too. He always teaches him how to use the computer and the Internet. Even when there is a problem or something we don't know with our computer, we go to Taha (his nephew). He helps us with the research and we put it together and print it out then I take my son and go home when we're done." To Hamed his sister's house is a complete bundle of techno-resources and consequently a bundle of techno-capital, from access to the skills needed to teach and assist, to the technology support and help services. His sister's house is an important vehicle not only of techno-capital but also of cultural-capital as it is providing the means and assistance for Hamed's son to do his homework and thus perform better in school.

2.5 FAMILIARITY WITH THE DEVICES

The statements made by a subgroup of the *older* respondents about the technologies they own, gave hints about a level of familiarity and degree of interaction with the technology different from the rest of the informants. For instance, they revealed that while all the respondents have access one way or another, some exhibit limited familiarity and no immediate usage of the technologies. Qassem, a 72 year old college graduate who used to work for the

government, had difficulties naming some of the technologies they have at home, despite his ample education and rich work history. He said: "I don't use the one that moves like this one (referring to my laptop), I use the table one. My son brought it for me. I didn't buy it. I still want to buy one that moves. My vision is bothering me... I have to use one that has big letters. The tablets are difficult for me." Other informants had the same problem, though they did not have Qassem's educational background. For instance, a few ladies knew the devices but did not know their names, as in the case of Hajir, a 58 year old lady from Kalaa who said: "My kids have the one like this" while pointing to my laptop, "laptop, you mean?" I said, "Yes, laptop and they have a tablet too" she responded. To me, it was fascinating that she knew what a tablet is called but did not know what the laptop is called. However, in my later discussion with her she explained that her young grandchild- whom she watches during the day- uses the tablet all the time and thus she knows the name, while she does not come in contact with the laptop that often as it remains in her children's room. Interestingly, examining the placement of the technology within the house is a feature of the domestication theory as and digital divide research. . Livingstone and Bovill (2001) argued that the technologies are often placed in the children's bedrooms or play area, preventing other family members from developing familiarity and experimenting with the devices. This observation was echoed in the informants' discourse about their device ownership.

Ilham, a 68 year old from Kalaa, did not know what a tablet is called. She described it to me: "My son has that thing that's small and you touch it and it works." "A tablet?" I said, "yeah, I think that's what it's called" she answered. Another elderly lady, Layla (72 year old from Zouhour) recognized the tablet and laptop but did not know the name of the Internet USB stick: "We have a tablet and a laptop. We have phones, the old ones, and we have Internet connection

with that thing we hook to the laptop" and she made a gesture with her hand to describe the USB stick. The lack of terminology to describe the technologies they own and use to access the Internet, suggests two major points. The first, is that the Internet has indeed become well integrated in the Tunisian households that even those who are not fluent in the technological language are able to have a degree of familiarity with the devices and what they-the technologies- do. They can easily describe the devices and the tasks accomplished with them. They also find ways to list them as part of the technologies they or their kids own.

It has become part of their life and part of doing "what everybody does" to upgrade to the latest technologies despite the lack of means and income, a behavior that will be discussed at length in the next chapter. According to Carrington (2007), the digital technologies have become embedded in the structure of our daily life that sometimes we fail to notice it. Others went as far as describing the technologies as taking an almost natural place in the communal attitudes (Gere, 2002). Children played an essential role in domesticating the technologies to the level where it became familiar to the parents even without immediate usage. Silverstone (2014) argued that technologies are localized through the users, however, the social context of the house often limit the familiarization with the technology to a few members of the household (Haddon, 2006). Silverstone's statement is true in the case of the informants who developed familiarity with the technologies as part of the household devices but have not come to contextualize their usage as part of their overall media and technology ecology. Furthermore, for the current group of informants, age proved to be the main indicator of the usage divide as the common point among all the respondents who lacked the terminology about the technology is the age factor. All of them are older people who have only use the technology to Skype, a task facilitated by their children. Nevertheless, in the case of my sample of Tunisian informants, the invisibility of the

technology devices has not given it any privileges. They have determined and well-articulated

arguments about its positive and negative dimensions as will be shown in chapter 3.

2.6 THE COMMUNITY RESOURCES

The *publinet*, the Tunisian cybercafé, is an example of the communal life in these

neighborhoods. It is the equivalent of the cybercafé in its worldwide meaning and basic function

(to access the Internet) but with more functions given to it by the Tunisian users and culture.

First, the *publinet* staff or managers are willing to help, assist, and teach the users how to

accomplish tasks. A simple question of how to do something can become a digital literacy

lesson. It is not strange to see the staff pulling a chair and sitting next to the user and showing

him or her step by step with voiced instructions how to do something[30]. The *publinets* in small

neighborhood become part of the community landscape and resources as in the case of the

neighborhoods under focus in this study. The respondents talked about *publinets* and the people

who work in them casually. They constitute an integral part of their community and of the

resources they can use at any time. In addition to allowing her to talk to her expatriate son, the

publinet provides Refka (age, profession) with a sense of freedom as she explained: "My sons all

have smartphones. We use it sometimes to talk to my son abroad... and sometimes, I go by

myself to the *publinet*. "*Free*". Just by myself. Whenever I want to. I don't wait for anybody to

'*connect*[31]' for me. I call him (her son) on the phone sometimes but someone responds in a

foreign language. It takes all my money and I don't get to talk to my son. So I go to "Radhia"

---

[30] In fact, I personally learned and developed my computer, Internet, and digital skills at the *publinet*. I used to pay
for an hour to access the Internet and get free lessons on how to perform a wide array of tasks.
[31] Tunisians use the word "connect" to refer to different situations such as to access the Internet, to operate a video-
conference, and to spend time on Facebook. A lengthy discussion of the terminology used by my informants will be
included in the second chapter.

(the lady who works at the publinet) and talk to my son. When I go there, it's Radhia who puts

everything for me. There, I talk to my son in Sweden" soon she remembers something and adds

proudly: "I know how to close Skype. The only thing I know how to do is to turn it off. I would

look at him and say: Aziz my son, good bye! And he asks me: Mom do you know how to 'close'

the conversation? And I say yes, the green thing is here (referring to the Call button on Skype)...

and I send him a kiss and then close it. And then I'm sad. I say: Oh god, my son is gone." This

last statement demonstrates that for Refka, the virtual presence and communication with her son

is equivalent to or compensates for *real* presence. Only when the video call is over, does she feel

sad that he is *gone*.

Ayat, a 32 year old stay at home mom from Kalaa, reported that she does go often to the

Internet café for her daughters' research. She noted: "When they have to do research for school,

we go to the *publinet*. I go to the *publinet* to prepare their lessons. I don't do anything by myself.

I ask the guy who works there and he finds me everything. I can learn if I want to but I just want

to stay away from it.[32]"

In her 2005 study of Tunisian high school students, Abassi found that the *publinet* was a

source of competencies of one third of the sample while half learned from their siblings and their

friends, and only about 15% reported learning in their educational institutions. Abassi's

informants reported that they took free lessons and instruction from the person managing the

publinet where they learned. In addition to the *publinet*, neighbors are also part of the resources

available to the users. Nacira, a travel agency associate in her 30s reported: "I feel comfortable

searching and researching. Technical problems are hard. If it breaks, I have to find someone who

knows how to fix it. A neighbor helps us whenever something happens. Like if it "catches" a

---

[32] Amal had strong views about Internet and Internet usage mainly based on her fear as a parent about the dangers
the Internet poses to her young daughters, an issue that will be discussed in the next chapter.

virus." While Nacira's neighbor provides technical support, Kahina, one of my informants, plays the role of an Internet provider to her neighbors. She said: "Not everybody has connection at home. There are people who go to the *publinet* to see their kids. I have people from the neighborhood come under the walls of my house to use my Internet connection so they can talk to their kids. The young people from the neighborhood too. During the summer evenings they would stay until very late at night under the walls of my house to use my connection. And I don't care. It doesn't bother me. I'm paying for it with or without them using it... so I let them use it. I even leave the outside lights on for them so they can see." Kahina described how she is playing the role of a Wi-Fi hotspot for the neighborhood. She actually gives her Internet password to whoever wants to use her Wi-Fi signal, be it elder neighbors connecting to talk with their children abroad, or neighborhood youth connecting using their mobile devices for diverse reasons (as shown in Figure 5.)

Figure 5. Neighborhood youth, late in the evening, using Kahina's house Wi-Fi signal.

The sense of community is especially strong in the popular neighborhoods. It is a product of the structure of the Tunisian society and a consequence of the layout of the houses that make it impossible to avoid the interactions with the neighbors. In fact, Kahina's street was particularly busy (given the warm weather that day) when I interviewed one of the respondents under the walls of her house. As we were sitting, neighbors joined in, in a casual fashion, including Kahina. Others walked by and, recognizing the stranger with the laptop in the neighborhood, stopped to ask: "Are the 'census people' touring the neighborhood again?" They were told that I

wasn't one of the 'census people', but that I was doing an interview for my studies, and they were invited to join the circle and have a cup of tea.

Coleman (1988) argues that these close community relationships represent another source of social capital, consisting of people willing to assist each other with different problems in different contexts without expecting anything in return. He suggests that members of such a social circle engage in mutual assistance acts mostly because they value their community as an integral part of their social life. In line with Coleman, Rojas et al (2012) maintain that social relations and interactions are an essential component of the residents' techno-dispositions as they become a resource that promotes ICT use.

Nevertheless many of my respondents reported limited to no ICT use at all despite the resources they have in their communities and their households as described above. In the following section, I focus on those non-users and explore the factors that work as barriers to usage.

2.7 USAGE FACTORS AND BARRIERS

Most of my non-user informants had the same social capital at their disposition to teach them Internet and computer skills, but did not acquire the techno-competency for different reasons. The respondents discussed several factors such as gender role, lack of language competencies, and finally age and health related issues. The gender-role narrative was reported only by women who blamed the lack of time and the chores workload for not learning to use the technologies they have at home. Ilham (68 year old from Kalaa) stated: "I just don't have time, I have to weave rags and do chores, I don't have time. I think I can learn it if I want to. I didn't learn to write at the time because I didn't finish... that's it (in reference to the literacy courses she

73

took years ago)". Amira (54 year old) from the same neighborhood as Ilham said: "I don't want to access. If I need someone I have my phone. I don't use it. Besides, I don't have free time to use it. My mother in law lives with me and it takes a lot of time to care for her... and the house... and the kids. After dinner I just watch TV for a little while and that's it." Their similar attitude is not surprising given their close relationship within the same extended family and community. As a matter of fact, I interviewed both ladies in Amira's home in her kitchen, where they both were helping each other to make a Tunisian dish that requires a lot of work and preparation. They often intervened while I was interviewing one of them, finishing each other's sentences and asserting each other's points and giving me examples of what the other lady means by her statement. To both of them, chores and caring for the family is more important than investing time in learning to use the computer and the Internet. Gender-roles, coupled with women's tendency to be less tech-savvy than males, are recurrent barriers to access and usage in the research about the digital divide (Van Dijk and Hacker, 2003; Straubhaar et al, 2012; Ben Hassine, 2014).

A few of my respondents saw their lack of literacy as a barrier to their usage. Ahlam, the 71 year old lady, immediately stated that she can't use digital technologies because she is illiterate: "I never went to school. I went to those literacy classes for old people... I went a couple of days and then stopped... My husband told me it's not time for school now." she said. Dhiaa (53 year old) also stated his lack of education as the reason for his lack of usage: "I think if I were really educated, I would be able to learn it, but I can't really read and write. I had 3 years in school, so I think it would be difficult for me." For other informants, it was a mix of lack of education and lack of confidence in their abilities to learn that prevented them from learning.

Refka, the 54 year old lady from Zouhour, expressed a lack of self-efficacy: "I want to learn but I'm not sure my mind still accepts learning" she said.

On the other hand, one of the interesting observations was that not many people reported age as a barrier to learning (3 respondents only) and it was mostly brought up by respondents who barely went to school and lacked general literacy skills. Habib, the 73 year old business owner, barely knows how to write and read. He never went to school and taught himself to read and write enough to be able to manage his businesses (coffee shops, factory spaces, and houses that he rents to other people). He initially reported age as a barrier; he perceived himself to be too old to learn as he said: "Listen to me, now I'm 75 years old. I'm too old to go and learn. Now my children and grand-children learn and study. I help them and stand by them so they learn to make something of themselves." However, when I asked him if he would take digital literacy classes offered by the government- similar to the literacy classes the government offered- he stated that the lack of language skills may prevent him from fully learning how to use the Internet. He explained: "The problem is, it is 'created' in French not in Arabic. It is created in a language that is not ours. If it was created in our language I can learn it. Even writing on the Internet, everything comes in French. Maybe if something is 'organized' and made by the government, then maybe. But we're old and I can't really learn. If they make things in Arabic then maybe we can learn and it would be good for our finances and business". Habib's concern about the language has some validity to it, as there are very few popular websites and services available in Arabic. Viard and Economides (2014) argued that the lack of content in the native tongue is a significant barrier to Internet use and Internet diffusion within a particular cultural group. The authors stress on the language barriers as a significant reason for the global digital divide. This leads to some cultures where there is ample content in the native language, to have a

significant digital advantage over other cultures where there is very limited content in the native language.

This is particularly true in the case of Arab countries where the number of domains offered in Arabic language is not only relatively limited- compared to the domains offered in English or French- but also invisible and unknown to the Arab Internet users and non-users (El Gody, 2006). In Tunisia, language is not an issue for the educated population since education is bilingual (courses are offered in Arabic and French since elementary school). Tunisians who finish middle school usually master enough of the French language to navigate the Internet. Given that French is one of the popular languages on the Internet, connected Tunisians face no problems using popular websites and finding relevant content. Besides, whether in schools, at work, or at the *publinet*, the Internet as well as the computer are learned and taught in French; the terminology is in the French language and most websites are accessed in French (Facebook.fr, Google.fr, and so on.). Tunisians often code-switch on the net and a Romanized version of the Tunisian dialect is widely used[33].

In my sample respondents, very few reported using the Internet in Arabic and when they did, they put it in a second place after French. Those who reported using Arabic on the net also reported searching for religious information, as in the case of Baraa, the high school teacher whose Arabic language content use is driven by his second professional position as an Imam at the local mosque. He researches religious topics often, which is a content mostly offered in Arabic. He explains his language usage as so: "French, and Arabic. I use both equally. I

---

[33] Tunisians speak a colloquial form of Arabic called the Tunisian dialect. The standard Arabic is used in written forms and formal settings, especially in the media (newscast). On emails, SNS, and instant messaging, Tunisians speak the Tunisian dialect using Latin letters and replace the sounds that don't exist in the Latin alphabet with numbers. This form is widely used in other Arab countries, especially in Egypt as demonstrated by Warschauer et al (2002).

manipulate both equally. Sometimes, English but since I'm not fluent in English, I don't access much the Internet in English. For religion, Arabic, but sometimes in French too." Yasmine reported that she speaks Arabic when talking to other people, however, she uses the Romanized Tunisian dialect when writing: "I use French and Arabic... I use both languages equally depending on the friend I'm talking to or the page I'm visiting. I always type in French letters though and I only do research in French." Even those who did not finish primary school but learned to use the Internet at home reported using the Internet in French. Thus, given the prevalence of French illustrated by the users' habits on the Internet, we can understand how, for the non-users, the fear of the language plays role in the perceived-ease of use factor, which is a motivational factor that can become one of the psychological barrier to learning ICT use in addition to lack of perceived relevance and usage motives (Van Dijk, 2006; Correa, 2013).

Some informants reported the lack of relevance as the main reason for not using the Internet. One of the ladies, Hajir (58 year old lady from Kalaa) said: "My son asks me to let him teach me. He says: come mom let me show you how to use this. I say no. Something that I don't use or need! Why learn it if I don't need it?" Others explicitly reported the lack of interest as the main reason for not using the opportunity that their kids offer them to acquire techno-competencies. Monji, a 61 year old from Kalaa, used to work at a high school which provided a computer and Internet connection for the staff members. His daughter offered to teach him but he refused to learn for an unconventional and rather facetious reason: "The administration provided us with a computer and Internet connection but I was at the end of my career, I didn't care much for it, so I didn't learn. I don't use it at all. My daughter studied computer science years ago before I retired, and she wanted to teach me, I told her no! Because if you know, it's a problem at work. If they ever need something, you would be the one they call. I didn't learn so when I tell

them 'I don't know' I wouldn't be lying." Other than the fact that it's humorous, Monji's reason for not learning demonstrates a careless attitude towards the acquisition of techno-competencies that he was willing to give up, for fear that the new competency would burden him with more tasks at his work place.

Similar to Monji, Dhiaa's daughter desired to teach her father but was faced with his lack of interest: "My youngest daughter uses the Internet the most. She shows me things. Mainly pictures. She really wants to teach me how to use the computer and the Internet but I don't want to. I'm not into it. I just don't care." The same discourse, with almost the same words was brought up again in another informant's interview. Adam, a 53 year old from Zouhour, expressed no interest in learning because he finds the programs that he likes on TV. He said: "My daughter uses it the most. She didn't try to teach me and I'm not interested. I like news and animals and I find those programs on TV, so I don't care about the Internet." Fatma, the 58 years old lady from Kalaa also reported her satisfaction with TV as the medium where she find the information she needs: "There is TV to teach me everything I want, cooking and everything else." For all these respondents their satisfaction with their traditional media experience seems to be another factor preventing them from connecting to the Internet. TV is a powerful competitor to the Internet in these communities. It emerged as the main source of information for my informants, and will be discussed at length in the last chapter. That being said, it is not only their satisfaction with TV that is standing between them and learning. The main problem is that these respondents are not seeing any benefit to the Internet other than giving them entertaining programs about subjects that interest them (cooking, animals, news, etc…). Therefore, they do not see the benefits and the *relevance* of going online as long as the television is providing those services. In other words, there is a lack of perceived relevance in their attitude towards the Internet.

For many, the only relevance to the Internet is chatting with their kids via Skype. To do so, they had their children do everything for them, from turning the computer on to video-conferencing. This trend was particularly prevalent among the elderly regardless of the gender. Yosra, the 76 year old lady who lives in her own house but surrounded with her children and grandchildren houses reports: "I don't know why they use it. I don't ask and they don't tell me. I have my daughter in Sweden... she talks with her sister and I go there (to her daughter's house) and talk to her too. That's it." The grandchildren of Layla (the 72 year old lady from Zouhour) are always in her house, along with their parents as they all live in the independent stories above her house. She reports their assistance to help her talk to her daughter who lives abroad: "I call my daughter in Italy and talk to her via Internet. They open it for me, and I put that thing on my head and I just talk. I don't even know how to open the computer… I don't want to learn. As long as they call my daughter for me, I'm fine."

Similar to Layla, Basma's sons handle the whole process of video conferencing for her: "We talk to my daughter abroad. She calls them on the phone and tells them to open Skype because she wants to talk to me so they open Skype and they call me and I talk to her… I would like to learn. I just don't have the opportunity to learn. Whenever my daughter or my son is going to talk to me, my younger kids open it for me... it's ready for me to use. My daughter is very young and she opens it for me too." Basma actually articulates the reasons for her and the other ladies' lack of learning. There is nothing compelling them to learn as the kids do everything for them. The issue of younger family members "connecting" for their elders further complicates the issue of ICT usage which usually holds the assumption that people are either users or non-users, either *in or out* (Van Dijk, 2006). In the case of many of my respondents, they are *neither in nor out*. They are a separate category of users who go online through a

mediator, a person connecting on their behalf. That is why it is difficult to argue that they are not

benefiting from the technologies available to them. They have a specific digital needs – mainly

keeping in touch with their children abroad- and they satisfy their needs with other people

connecting on their behalf. If they have other needs, for example searching for health-related

information or administrative documents, they will satisfy their needs through their mediators in

the same way. In other words, their social capital is at their disposition as a bridge to technology

use and benefits. On the other hand, their social capital is playing against their techno-capital as I

can't help but wonder if these people, especially those who can write and read, would invest time

and effort in acquiring techno-skills had they been compelled to do so on their own.

Many researchers found similar results while investigating reasons for not using the

Internet by those who have access. They found assisted or facilitated Internet use as an important

factor, especially in marginalized populations (Van Dijk and Hacker, 2003; Straubhaar et al,

2012; Rideout and Katz, 2016). Furthermore, this line of research usually finds the lack of

relevance as a key determinant of the usage divide. Relevance is an integral part of ICT usage;

without a perceived degree of relevance, people do not see a compelling reason for learning to

use ICT. Rojas et al (2001) provided a list of techno-dispositions that includes the awareness and

perception of the potential value of the technology to the individual and the community as one of

the most significant elements. The authors argue that people must have a positive attitude

towards ICT. In other words, they have to perceive the information provided on the net as

relevant to their lives, in order for them to acquire competencies and apply them. In line with

Rojas et al, Lu and Straubhaar (2014) argue that the lack of perceived relevance and desirability

will drive a person away from computer and Internet use. Van Dijk (2006) argues that motivation

comes second in line after access in terms of the digital divide scale. He asserts that only after

one establishes access and finds a motivation for using the technologies, can he or she invest in

skill acquisition, and only then can we discuss the absence of techno-competencies as a reason

for lack of usage.

In terms of motivation, all informants who reported daily to limited usage of the Internet

also reported a specific motive for their skill acquisition and ICT usage. Yahya, the techno-

savvy, was driven by his interest in TV satellites and Dishes to both learn how to use information

technologies and to expand his knowledge. He said proudly "I learned by myself. Yes, I swear!

By myself! I learned mainly by… I'm very interested in satellite cards, so that's how I learned.

And through forums... I learned through forums such as TunisiaSat. I access a lot of groups and

pages related to satellites. So I learn about new generations of TV sets. How to "patchi"[34] (patch)

a satellite receiver… and so on." Yahya, also uses the Internet for work, he reported that he uses

it as a medium of communication as his work is based on receiving and sending emails. A few

like Yahya, especially those who work as high school teachers reported that they use it to

download the lesson plans and the exams: "My work does not necessitate that I use the Internet

so I rarely use it. Actually, I use it during the finals because they created this website where we

can download the exams and we can also use it to get the syllabus. That's it. I download what I

need for 2 or 3 months so I can have the lesson plans ahead, so I don't use the Internet that

much." (Aya, 58 year old from Kalaa).

Helping children with school work was the main motive for parental use. It influenced

the parents purchase decision or their usage of the *publinet* as in the case of Abir, the 36 year old

stay at home mom who graduated as an assistant pharmacist but uses the Internet mainly for her

son's schooling. "Sometimes there are things I don't understand. But I'm really not that curious,

---

34 "Patchi" is the term Tunisians use as a synonym to 'patch', to refer to the practice of downloading hacking codes
to access restricted satellite packages. The practice is illegal but some tech-savvies have made a business out of it.

I don't search in websites I don't know or try to find things I don't know. I search things mainly

for my son's studies. Otherwise, I'm not really interested in anything. I don't search that many

things...I search for things regarding Labib's (her son) studies or read about alternative medicine

or religion. But mostly Labib's studies. In fact, I learned to use the Internet just to help my son

with his school work. Otherwise, I never touch the computer or care for it." In the case of

Yasmine, the high school teacher and Yahya's wife, being a mom is the main driver of her

Internet use: "I search a lot about raising kids... I go a lot when I do something bad like yell at

them, so I would go and search how I change that, and then take notes and write down what I

read. I always want to improve myself as a mom and search for ways to make myself better. I

also search for things to help my daughter with her homework."

For the few who don't have Internet access at home, they use the publinet or their family

members' houses to help their kids with their homework. Hamed, the 48 year old electrician

explained that his son's homework is the only reason why he uses his sister's Internet

connection. He reported: "We don't have Internet... we have a computer but no Internet... when I

need something for Wahbi's school we go to my sister's house... but when he's older I will "get"

him the Internet." Molka, the 34 year old stay at home mom from Kalaa also uses the *publinet*

for her daughter's school: "I go to the *publinet* to prepare their lessons. Every time they're taking

something new, I go to the *publinet*, I research it and learn about so I can help them with their

homework. Sometimes, I go about two times I week. I go only for research. I never use

Facebook or anything else."

For the majority of my respondents, using Skype to keep in touch with their children who

live abroad was the only activity they do online. It was a form of usage that surfaced

independently of age, income, education, or gender of the user. Wafa, who didn't finish primary

school learned to use it only to chat with her daughter: "I don't use the laptop that much because my daughter calls me (on the phone) often. I only use it [the computer] to call Shada (her daughter). I learned how to turn it on. My sons taught me. But that's the only thing they taught me because I only use it 'for Shada'." The same usage was reported by Adam, the 64 year old from Zouhour, who used the computer exclusively to chat with his son. He said: "We have a laptop. My son is in Holland and that's how we keep in touch together. I have a yearly Internet connection plan so we can talk together. Otherwise, it's my daughter who uses it [the computer] the most." All these respondents use the Internet only to preserve family ties as a transnational space that compensates for the geographical distance separating them from their children and preventing them from sharing face to face time, something that is characteristic of the Tunisian family. In other words, ICT become an extension to what they usually do without the assistance of the technologies. This observation is in agreement with Internet scholars who argued that the medium "tends to complement rather than displace existing media and patterns of behavior" (DiMaggio et al, 2001, p. 307)[35]

My users' narratives indicate that the Internet has been integrated in their daily lives as part of the household instruments that satisfies specific tasks without much interest or emotional involvement with it, beyond the task they need it to accomplish. In other words, these respondents have appropriated a specific function of the technology and manipulated it to their specific needs. In more simplistic terms, their lives are not overwhelmed by the technology; it is the technology that is manipulated to fit into their lifestyles, habits, and relationships. Although it integrated their homes, the technology did not integrate their modes of life more than they allowed it to do.

---

[35] Skype will be discussed with more details in the next chapter as an example of how ICT are being used to assert pre-existing behavior of the Tunisian families.

Bakardjieva (2005) refers to this behavior as "indifferently instrumental" (p. 107), which signifies the instrumental use of the technology with limited emotional involvement. In other words, to these users, the Internet and the devices they used to access it serve a particular purpose, and it is them (the users) who manipulate the technologies as instruments to accomplish those specific tasks. In a way, the Internet became similar to the other one-task-only household devices such as the vacuum, the laundry machine, or the washer and drier, even if the potential of the technology, as well as the purpose and nature of the task are fundamentally different.

The indifferently instrumental usage was not tied to a specific demographic group. However, those whose use was limited to Skype have age as a common characteristic, as all were older adults. Some only learned enough to be able to perform a video-call through Skype, others had their children connect to Skype on their behalf. In my discussion with all of them, none reported a motive for usage besides Skype. This takes us back to the discussion of the relevance and motivational factors, which obstruct the acquisition of techno-competencies. As a matter of fact, the case of my next informant, Mohamed perfectly illustrates this point. Mohamed is an 82 year old retired judge, a high-paid job in Tunisia with a good retirement plan. He has several college degrees (from Zeituna University and from Law School) and lives in an upper-class neighborhood in Khezama. Yet, Mohamed's Internet usage is limited to chatting with his daughter who lives in Italy.

One particularity about Mohamed is that he learned how to access the Internet for other purposes when he had a motive and relevant information he was seeking, but his motive was short-lived: "I wanted to learn. My daughter taught me when I went to visit her in Rome. I was there for a month, she taught me how to use it. I had an account in something and started reading newspapers. When we returned to Tunisia, I didn't use it." When I asked him about what made

him learn and what made him stop using, he misunderstood my question: "It wasn't difficult to learn and when I tried to search for something it wasn't hard. The first thing I searched was news about Tunisia since I was abroad. When I returned I stopped using it." This is when his wife, Nourane (74), intervened and explained that he wanted to learn in December 2010 because they were in Rome visiting their daughter, and it was then that the uprising events started. Since there was no immediate television coverage, he wanted to learn to use the Internet so he could follow the news about the events of the revolution. She also explained that they returned home in January and they followed the events on the ground and from Al-Jazeera which, at that point, was broadcasting news about the events. Nourane on the other hand, displayed more usage patterns than her husband, despite the education differences between the two. She is the lady who copied her niece's computer lessons and instructions to teach herself how to use the computer and the Internet.

Thus, Mohamed's nostalgia for his country and desire to follow the events shaking its political and social scene motivated him to acquire techno-competencies and to use the Internet, beyond Skype, for as long as the motive lasted. Similar to Mohamed's behavior, Ayat, the 32 year old lady from Kalaa reported *intermittent user* behavior (Van Dijk, 2006) in reference to those who give up the Internet for a period of time then connect again for one reason or the other. She explains the reasons of her discontinuous usage: "I used to go when I was in high school, about 2 or 3 times when *publinets* were first created. There was no connection at home, so when professors gave me something to research, I would go to do my research. Just to do my research, I don't use it to talk to friends or other people. After that, I went for my Senior year thesis... In college... After I got married, I stopped using the Internet. It's something for people who don't have anything to do. For my thesis, I used it a lot. It can be good. A lot of things, I learned them

from the Internet. During my pregnancy, also, I used it a lot. I learned a lot about pregnancy through the Internet." Ayat and Haroun and a few other respondents' modes of techno-usage reflect Van Dijk (2006) sequencing of digital divide barriers, which consist of (1) access; (2) a motive for usage; and (3) the skills. Here we should add to Van Dijk's sequence the importance of maintaining a motive, as some appear temporary, allowing the users fall back into the non-users group.

Helsper (2008) explains that continuity is an important factor to ensure digital inclusion. She pointed out that "people tend to dip in and out of technologies such as the Internet, depending on their everyday circumstances. This means that at certain point in their lives they are digitally included and at others are excluded" (p. 23). For those who are on the verge of digital exclusion, especially those who have digital access but choose not to use, the Internet and other ICT are only part of their everyday life as hardware devices. Helsper adds that it is necessary that they become aware of some of the ICT benefits and relevance to their lives in order for these information media to become part of their daily life habits as well. This could be applied to my group of respondents and other similar non-users, especially that all the other techno-capital factors are available to them: access, resources, and a techno-positive class habitus.

2.8 AN ICT-FRIENDLY GROUP HABITUS

At this point, I would like to tie the respondents' lack of a relevant motive with a discussion of the younger generation's desire to teach their parents and grandparents to use the Internet. Most of my informants had members in their families willing to teach them how to use digital technologies. The discourse about children willing and wanting to play the role of techno-

brokers continuously emerged to the point where it became central to the narratives about the techno-field. I interviewed Layla (the 72 year old from Zouhour) with her daughters, grandchildren and some neighbors gathered around us. As soon as I asked her about her Internet skills her granddaughter intervened and the following discussion took place:

> *Layla: I don't want to learn. If they leave it on, I unplug it and that's it. I just don't know how to use it. Even the phone, I don't really know how to use it. I fight with my granddaughter all the time!*
>
> *Granddaughter: she won't let me teach her. I begged her: please let me teach you. I asked her over and over "please let me teach you" but she always says no.*
>
> *Layla: She keeps asking me to learn, she says: come let me show you this, let me teach you how to do this and I say: leave me alone. I just don't want to. I can't do it. As long as they call my daughter for me, I'm fine."*

What is even more fascinating in this conversation is that Layla had an annoyed look on her face as she tells me how her granddaughter insists on teaching her and won't "leave her alone", while the granddaughter had a regretful, almost sad tone to her voice and her facial expression as she told me how Layla wouldn't let her teach her. The attitude of the granddaughter is foremost intriguing; she acquired techno-capital in school and at home with constant access to the Internet since she was a kid and she sees it as her duty to pass her knowledge to her grandmother. Even much younger children were willing to teach their grandparents as illustrated in Amira's comment: "My grandson, aged 6 years old, was showing me how to open it (the tablet). He told me let me show you so you can take pictures of me (she laughs). He was telling me: this is how you open it, this is what you do next, you touch this, then the camera comes on, then this is what you touch… and so on." Amira proudly explained to me

that her grandson had acquired his techno-competencies at home from seeing his mother and his uncles (Amira's sons) use the Internet, and that he had the common sense to show his grandmother step by step instructions to operate the tablet to take pictures.

In line with their youngsters, the relatively older generation of adults reflected a positive and encouraging attitude towards their parents and grandparents acquiring techno-competencies regardless of their age. During my interview with Yosra, her two daughters were pushing for her to learn Internet and computer usage:

> *Yosra: I never went to school. That is the problem. If I had gone to school I would be able to do everything. I never went to those literacy courses. My grandchildren wanted to teach me but I never put my mind into it. I regret it. I regret it a lot."*
>
> *This is when one of her daughters intervened: "You can still learn. Anybody can teach you and they (referring to the government) still offer those literacy courses."*
>
> *- "I don't know." She responded as if thinking.*
>
> *- "You know Mabrouka (a lady that they must know) is 82 years old and she's taking courses." said her other daughter.*
>
> *- Of course! Education is good, it's always good. Said Yosra.*

Similar to Yosra, Refka's daughter was encouraging her to use the neighborhood resources, the "Youth Center[36]." When I asked Refka if she ever learned to use the computer she responded: "I never learned. There are [computer] clubs at the youth center but they don't teach you." Her daughter interrupts: "Yes they do!" Refka explained to her that they let people use but

---

[36] They are called "Houses for Youth and Culture" in reference to their communal aspect, and Tunisians refer to them as Youth Houses. These centers were created in the early 1980s in popular and lower middle class neighborhoods in order to provide entertainment for the neighborhood kids and youth. They offer free sports club (martial arts mainly) and culture clubs (theater, photography, painting, plastic arts). In the mid-1990s, the computer clubs were introduced to these activity centers. They were meant to teach the youth how to use the computer and, subsequently, the Internet when connection became available. However, many of these clubs are used only for gaming with youth coming in and out as they wish to play games whenever a computer is available.

do not teach how to use, to which her daughter responded: "No, they do teach. If you want to learn you can ask whoever is there and they will teach you. Just go there. You can go any time." It is noteworthy from Refka and Yosra's case that even when the children are not interested, willing, or simply are not able to offer to teach their parents, they still encourage them to seek courses and to learn using public resources available to them.

Researchers contended that social resources stemming from social capital can be in the form of instrumental support (teaching competencies) or emotional support to learn and use ICT (Helsper, 2008). Thus, the younger generations' encouraging attitudes towards their parents and grandparents learning is in itself a resource that represents a valuable techno-disposition to those who see age and other age-related factors (health, self-efficacy, or technophobia) as a barrier to their learning. The children and grandchildren have the power to change their elders' attitudes by instilling in them the conviction that they *can* learn. In many cases, the children succeed in teaching their parents or relatives how to use the Internet as in the cases discussed earlier in this chapter. The Tunisian characteristic of strong family relationship and solidarity informs much of these young Tunisians' attitudes. They value their elders, and passing the techno-capital they acquired to them comes naturally to them. It is a reverse trend from what we usually see in Western cultural-capital literature where the capital is passed from older generations to the younger ones. However, given the circumstances and the nature of the Tunisian society, this form of cultural-capital- techno-capital, is being passed in a reverse mode from the younger generations to older ones. This illustrates Rojas et al (2012) point that techno-field is a product of the interaction of specific cultural, social, economic, political, and historical forces with human agency. Rojas et al, found patterns of bottom-up transfer of techno-competencies in their sample of Latino-families in Austin, Texas. The same patterns were also reported by Correa (2013) in

her study of families from low socioeconomic status in Chile. Her results revealed that offspring often served as brokers of techno-competencies and taught their parents how to use both the computer and the Internet. Thus, it is a tendency of the children from low socioeconomic status, regardless of the culture to transfer or attempt to transfer their techno-competencies to their older ones.

In my group of respondents, while some succeeded at convincing their parents and grandparents to learn to use information technologies, others were less successful as in the case of Layla, Monji, Habib, Adam, etc... This could be explained by the lack of a perceived motive factor in these respondents' discourse as discussed above. The younger family members, while extremely motivated to pass their techno-capital to their elders lack the response to the question: why should the latter learn to use digital technology? The lack of interest narrative is not addressed in the effort of the younger to transfer their competencies within the family. As a matter of fact, their attempts at teaching, insisting and sometimes begging their elders, become exhausting to the latter when not accompanied by a reason that clarifies a motive. This was the case in Layla's situation who seemed tired of her granddaughter's constant begging to let her teach her how to access the Internet. It is worth mentioning that the only youngster who accompanied his desire to teach his grandmother how to use the tablet with a relevant reason, was Amira's 6 year old grandson. He provided a concrete and relevant reason to his grandmother, which is to be able to take pictures of him. This motive, as childish as it may seem, was significant enough to grab the grandmother's attention. The fact that she was able to recite the steps he showed her (to take pictures with the tablet) demonstrates that she did, indeed, pay attention to his directions. Thus finding motives and providing relevant reasons for learning maybe the key to the acquisition of techno-competencies by the older generations.

90

2.9 THE CASE OF KAHINA: THE TECHNO-EMPOWERMENT

While I consider every single one of my interviews as a valuable insight into Tunisians'

negotiation of the meaning of ICTs for their society, one of my informants had a particularly

memorable impact on me. Kahina (the 57 year old stay at home mom) added a unique

perspective to the way I view my research and the importance of understanding the issue of the

digital divide. In addition to the role she assumed to serve as access provider, a hotspot for the

neighborhood, Kahina exemplifies the sense of empowerment felt by "the simple user"

(Bakardjieva, 2005) through the Internet and technology devices. This section is dedicated to

shedding the light on the experience of a woman with limited financial and educational capital

who found in the information technologies a door to the world and an opportunity to acquire

literacy and digital competencies. Wheeler (2007) argues that the Internet's ability to empower

the less privileged and marginalized social groups is difficult to prove and is dependent on many

other factors. The case of Kahina highlights some of these factors, particularly the role of the

social capital in building techno-capital. Thus, I discuss in this section the role of children as

technology resources to achieve the sense of empowerment that Kahina reported.

2.9.1   Children as Techno-Competency Brokers

Kahina is a 57 year old stay at home mom. She went to school through 6th grade but quit

before she finished that year. She speaks Arabic and some French and can write and read in both

languages. She has never worked and saw "raising her 6 kids" as the only job she ever had.

Three of her kids live abroad, two in Italy and one in Germany. The other three aged 23, 21, and

15 live with her. Wheeler (2007) contended that "for women in the Arab world, several obstacles

stand in the way of their empowerment through ICT, including illiteracy, lack of access,

prohibitive costs, IT knowledge, and lack of technical training." (p. 90). However, social capital can sometimes represent a solution to all these problems. Kahina's children constitute a full network of techno-resources. Those who live abroad, provide her with the latest technology devices and send remittances that help in paying for the Internet fees. She has at one point owned all major information technology devices at home, although the tablet is her favorite. In response to my question about the technologies she owns she said: "I have a tablet and a smartphone, *they're my life*. I used to have a PC but now we don't anymore. We all have tablets. Who's going to sit on the table and type on a PC anymore? We all have tablets. I navigate and chat and watch the whole world."

Kahina is an avid user of the Internet. Her daughter who lives with her transferred the techno-competencies she acquired through education to her mother. Kahina maintained and expanded her skills as she continued using the technologies. She reported: "Before, I didn't know anything. My daughter Iman taught me. She taught me how to sign in, how to navigate, how to chat and so on. She taught me how to use the phone too. And now sometimes she would say: My mom knows more than I do! (She laughs)". One of the two sons living with her plays the role of tech-support, although she uses his assistance to acquire more skills. She said: "What I don't know at all is technical problems... like if it 'gets virus-ized[37]'. I don't know what to do at all. I would call my son Mohamed. But the things I have problems with and Mohamed fixes it in front of me, I can fix it by myself the next time. Like sometimes there are boxes that appear on the screen. I would ask him why that appeared. He tells me and he shows me what to do. Next time it happens I fix it by myself".

---

[37] Tunisian Internet users use a variant of the word virus as a verb when referring to computers being infected with a virus.

To purposefully engage in learning, Kahina had to be interested in the devices and had to have knowledge of the advantages and benefits the Internet and the computer offer her as a stay at home mom. Her daughter was the one who revealed the benefits of the Internet to her and influenced her initial interest in information technologies, which led to her adoption and usage as she disclosed: "My daughter used to call me and show me things on the Internet and that's how I got hooked: wow, it's a whole world and you can see everything in there, you can see the deep sea, how to give birth."

In her study of the bottom-up transfer of techno-competencies in Chilean families, Correa (2013) demonstrated that the transfer occurred more frequently and efficiently when the parents foresaw the relevance and benefits of the technology. Kahina is fascinated with the world and is yearning to learn. When she realized that she can "access" the world through the Internet, it was not difficult for her to acquire techno-competencies through her daughter and expand her skills through her son. Developing techno-capital is a complex process, the transmission of techno-competencies is only part of the process (Correa, 2013; Straubhaar et al, 2012). The desire to learn and willingness to invest time and effort are as important as the transfer of competencies (Rojas et al, 2001).

Kahina's strong drive to learn combined with her children's investment in teaching her moved the process forward to the point where she surpassed her daughter's skills as she reported. Correa (2013) argued that parents may develop feelings of technological empowerment after interactions intended to influence adoption and usage. Once they learn, they develop confidence in their learning abilities and further expand their skills (Correa, 2013). Furthermore, Tufekci (2003) argues that learning how to use information technologies engender feelings of empowerment and inclusion in the digital sphere. She also stated that learners feel confident in

93

their digital skills and in their ability to perform more and more tasks on their own. Hence, learners' confidence in the acquired skills lead to further practice and additional opportunities to strengthen their skills.

Kahina, continued using the Internet after her initial learning phase to the point where she became comfortable navigating the medium. Besides, accessing the Internet through the tablet has become part of her media ecology. She combines her viewing experiences with her technological practices for several reasons. First because traditional media no longer "feed" her curiosity to satisfaction. She said: "I learned [how to use the Internet] and now I can't sleep without the tablet next to me. I don't like TV anymore, TV programs "مايغدّينيش" "May-ghadhinich"! "May-ghadhinich"! Seriously... "May-ghadhinich"! (they don't feed/nourish me anymore).

Before, I used to not know anything. I used to complain that my daughter doesn't help me (with house chores). I would tell her: you're sitting on your bed all day long, you don't help me. She would respond: Mom, I'm in another world! Now sometimes she calls for me: mom where are you? And I say: *I'm in another world!*" Kahina's choice of words hints at her strong drive toward learning. She is hungry for knowledge and only the myriad choices and opportunities that the Internet offer to "feed" or satisfy her curiosity. "I like to learn. If I have free time, I really want to learn. Because I can't type on a PC for example, the tablet is easier. And I want to learn more, I don't like to miss anything. My mind is open and I really like to learn." In fact, throughout the whole interview, I only sensed traits of regret and sadness on her voice when she talked about her missed opportunity for literacy as a child. She said: "[Ya ritni] I wish I had gone to school. I wish... I really want to learn... The Internet teaches you. I thank whoever invented the Internet. Whether it's a foreigner or an Arab... *I thank whoever invented the Internet and*

94

whoever invented the AC[38] (she laughs)."

Besides, Kahina developed familiarity with the Internet devices to the point where it has become part of her daily routine and is akin to a companion. She noted: "At night, I can't bring a CD player next to me, so I put the tablet next to me and let the music play all night long." Moreover, her hunger for knowledge spills over to her viewing experiences. She merges media and ties her traditional media viewing experiences with new media forms. She watches TV on her tablet as she reported when I asked her about following political news: "I follow politics of course. Who doesn't follow politics now? I follow Tunisian politics and the world politics too. I like to watch the 8:00 pm national newscast and when I miss it, I watch it the next day on my tablet... I watch everything on my tablet... I like to watch reality shows from our national TV like "*AL Musamah Kareem*" (a popular Tunisian reality show). I watch it on my tablet too."

Kahina's TV and Internet practices demonstrate her control over the traditional media she consumes. She uses the Internet to complement, transform and control what she watches on "TV". Indeed, Kahina explained that she controls when she watches something, for example, she does not wait for the reruns of the Ramadan TV series. She said: "I watch Tunisian sitcoms on my IPad. I watch them sometimes on TV. But most of the time I watch them on IPad. There is that program I like... and there are a lot of TV series they have on Ramadan, I watch them later on my own one by one. I would be laughing by myself. No more boredom anymore. If I didn't have this tablet, I don't know what I would have done. They only repeat the things they have during the summer in winter time, I can't wait until winter to have a laugh, so I use my tablet to watch whatever I want whenever I want." She has moved to a next generation of "TV" viewing,

---

[38] Air Conditioning has just recently (since the early 2000s) become a basic home appliance in popular neighborhoods, and is highly appreciated as summer temperatures consistently exceed 35°C (upper nineties in F).

ahead of most people of her age, gender and education.

Mehra et al (2004) studied how marginalized groups are integrating information technologies into their daily lives and routines. The authors argued that people from less privileged social groups contextualize the Internet use in their daily life experiences to enrich their practices and widen their opportunities. In fact, not only does Kahina take control over what and when she watches, but she also ties her TV viewing with the Internet in a way that creates further learning experiences. The following discussion explains how her international drama viewing coupled with the Internet has become a learning experience:

> *Kahina: My daughter went to Turkey, she called me from there and told me she went to this great shopping place, a street full of stores... She said: "Mama, I wish you were here to see it, "ميش نورمال" [mish normal] (it's unbelievable)." I told her: I know that street!... Listen... I told her... If you go down the road from that street, you turn this way, then turn this way, then you will find that big palace where they filmed that drama series. She laughed at me... she said: even Turkey, you know it? (She laughed)... I actually know it very well... even though I never travelled to Turkey.*
>
> *Interviewer: you saw it on the Internet?*
>
> *Kahina: yes! I saw it on "that Google" with the maps and places (Google Earth). When they had that Turkish drama[39], I looked up the places on it. One by one... I looked them up. All the places they showed... I found them all... One by one... "طلّعتهم الكل" [talla't-hom elkol] (I found them all)... So when she told me about that shopping place, I said: tell me something I don't know." (She is clearly proud of what she had learned by watching TV on the Internet)*

---

[39] Since 2007, Turkish drama series dubbed in Syrian dialect (a dialect very well understood by the Arab audiences) has become very popular in Tunisia.

96

At this point, it is clear that a transnational TV product such as a Turkish drama series can become the motive for a new learning experience for Kahina. Straubhaar (2007) argues that consumers of global TV situate global cultural products within their specific cultural context. In the case of Kahina, she single handedly contextualized and refashioned the way transnational TV products are consumed. She maintains agency over the flow of the globalized product and personalizes it in a way that is meaningful to her. The usual trajectory of a transnational drama series flow is altered by an audience member, who is not content to be a passive receiver of the media product. Her simple act of watching a transnational TV drama is enhanced by an Internet search generating a knowledge experience. Kahina developed her own complex media practices that start with viewing places on TV, identifying them then locating them on Google Earth, and ends with challenging the daughter to come up with something that she doesn't know.

Furthermore, Kahina uses websites such as YouTube or Facebook as a learning platform. She remarked: "I only like to see things. I don't comment or share or do anything else. I like to discover things and that's it. I like YouTube too. I watch everything. But I'm really into dangerous and exciting things like natural disasters. I like African traditions, I like to watch traditions from different African countries. I like to see scientific things too... I like to learn about scientific things... like how humans and animals give birth. I don't like people telling me how it happened. I like to see for myself." Wheeler (2007) refers to this behavior as "knowledge gathering," which is when less privileged members of the society, specifically women with less education and professional opportunities, use the Internet for learning purposes.

Mehra et al, (2004) stated that the Internet empowers the less privileged and change their daily life into a more opportunity filled space. Wheeler (2007) defined Internet empowerment as a process that engenders independence, self-confidence, and self-worth. He argues that the

Internet empowers simple users into taking control over the structure of their daily lives and improves their overall quality of living. Although Kahina does not comment or share anything yet, Wheeler (2007) argues that as they feel more empowered, women who are constantly exposed to the Internet accumulate knowledge and over time develop more and more social and political awareness, thus slowly becoming more active and confident to share their points of view.

Throughout our interview/discussion, Kahina was very excited and animated as she talked about her Internet experience. Wheeler (2007) argued that the theoretical claim of the Internet's ability to empower and provide opportunities for women in marginalized and low socioeconomic status can be hard to demonstrate. Hence, I left Kahina with a sense of fascination as I have witnessed the theoretical claims being exemplified in a real life example. Kahina comes from a modest family, had little education, and migrated from the regional impoverished interior of Tunisia, settling in a popular suburb of a big city to look for better life opportunities. With only her husband working low-wage jobs and 6 children, things have not always been easy economically. However, with a tablet and the Internet, she achieved a sense of empowerment and overall feeling of wellbeing.

At that point, I couldn't help but think of Ahlam, the millionaire's wife who despite her husband's economic wealth, the big house, and her frequent travels to Europe (mainly Germany to visit her daughter), is in the opposite position in the empowerment scale. She said when I asked her if she would attend digital literacy courses if offered by the government: "I would love to go and learn. 'You know, now that you mentioned it, I feel like I'm going to cry (she does actually cry). I want to learn, I feel like I am missing everything because I can't write and read." Ahlam cried during the interview and cried again when I finished recording.

98

I naively thought I should mention to her that the adult literacy courses are still offered by the government and that she could go and learn. However, Ahlam burst in tears again and told me that she went for a couple of courses but her husband thought that she had enough "learning" and that she should stop learning. Ahlam's unfortunate situation demonstrates two main observations; first, it highlights how sometimes economic means are not enough to empower and provide an overall feelings of well-being. Ahlam's lack of education is troubling her and significantly hindering her ability to feel content and included in the social life around her. Second, her situation sheds the light on the social barriers that stand against Arab women's educational empowerment, and the impact of the family and social gender roles in limiting vs. fostering women's learning opportunities (El Gody, 2006; Wheeler, 2007). Ahlam's case shows that access to technologies and economic means are not always enough to develop techno-competencies and to have access to the benefits of the Internet.

The combination of a supporting social capital and access to the technologies, however, can be enough to access the benefits of the Internet even in the case of lack of financial resources. Kahina's family, mainly children, play an essential role in her sense of empowerment. Her curiosity, willingness to learn, and self-confidence did the rest. All those elements converged together to structure a space for human agency to negotiate and organize. Kahina is developing her own literacy curriculum, she is in control of what she does and does not learn. Kahina does this while maintaining an active social life. She is very close to her family members as she reported using Skype to keep in touch with her migrating children (as will be seen in the next chapter).

She is also very well integrated in her community life; she reported that she supplies the neighborhood youth with her Wi-Fi password to enable them to use her Internet signal and

99

leaves the lights on at nights so they can use the signal late at night under the walls of her house.

Kahina was also present in a few of the interviews I conducted with her neighbors as part of the

crowd attending the 'event' of the interview. That is why I believe Kahina can be a strong

influence on her community; she can spread awareness of the Internet's role in her learning

process and her feelings of empowerment. She can easily spread positive attitudes about the

Internet to motivate others into taking advantage of their children's willingness to teach them and

thus empower them through the expansion of their everyday opportunities. Identifying the

change agents like Kahina in each small community in Tunisia may offer one of the keys to

addressing the complexities of the digital divide in Tunisia.

2.10 CONCLUSION

Since the early 2000s, digital divide scholars argued that the issue is no longer

determined solely by physical access; other social and demographic factors, mainly poor

education, age, and lack of motives affect digital engagement (Warschauer, 2001; Van Dijk,

2006; Helsper, 2008). This chapter channels these claims. First, access was not a problem in any

of the households I visited or to any of the informants I interviewed. On the contrary, most of my

respondents had the latest technologies and had Internet access through yearly plans or through

USB drives. Those who did not have access at home had their relatives' houses or the *publinet* at

their dispositions.

Nevertheless, access did not necessarily translate into usage as already established in the

literature (Van Dijk, 2006). Many of my respondents had limited to no usage. Age especially was

a key factor, which is a well-known determinant of the digital divide (Helsper, 2008; Correa,

2013; Straubhaar, 2014). Education appeared as a second determinant factors for many

informants. However, it was not the case in all the families as some had a reversed tendency as in the household of the retired judge (Mohamed, 82 years old) who has not used the Internet at all ever since his return from his visit to Italy (January, 2011), expect for Skype chats operated by his wife. This is despite his rich educational background and the several degrees from prestigious Tunisian universities he acquired. In contrast to his complete lack of usage, his wife Nourane, who did not finish middle school, uses the Internet from time to time for medical doctor reviews. Mohamed learned from his daughter while he was visiting her in Italy, only to be able to follow the events of the Tunisian revolution. His wife, was much more interested in learning. She wanted to take courses but then her niece took the courses and she copied them from her and acquired techno-competencies by herself through her niece's courses.

It is important to note that Nourane's 9th grade level provides enough literacy to read and write in both Arabic and French, the language mostly used for the Internet in Tunisia. This was not the case of those who did not finish elementary school. Their poor education, coupled with their older age was a significant barrier to their ICT usage. This confirms digital divide scholars' assertion that while the access gap is closing among different socioeconomic groups, the digital gap is becoming more about usage and competencies (Straubhaar et al, 2012; Van Dijk, 2005; Warschauer, 2002; Compaine, 2001). Compaine (2001) places illiteracy at the center of the digital divide narrative. Illiteracy causes those with limited education to perceive many motivational psychological hurdles associated with lack of usage, such as confidence and self-efficacy (Van Dijk, 2006; Helsper, 2008). In other words, they view themselves as too old to learn or simply not interested because they do not see the relevance of learning.

In the case of my informants, their lack of competencies and digital usage emerged despite the abundance of the techno-dispositions necessary to acquire techno-capital. Their

family and community members were a significant social capital and techno-resource. They were willing to help, assist, teach, and encourage the elderly's learning and usage. They also provided access whenever the relative did not have the technology at his or her house. Not having younger children living at the house, as in the case of Habib and his wife Ahlam the upper class Khezama residents or in the case of Layla from Zouhour, was the main reason for not having the technology at home. In both cases, however, their children and grandchildren come to their houses often bringing their technologies and their USB drives with them to help them connect and chat with their immigrant offspring.

The absence of a motive was the main factor behind usage disparities. Many reported a complete lack of interest in using the Internet. There was no perceived benefits from the information technologies other than chatting with children abroad, which is performed for them by their children, thus, they had no reason compelling them to learn. For those who use, parenting education and children schooling were big motivational factors, echoing a recurrent finding in digital divide research from different cultures (Helsper, 2008; Correa, 2013; Straubhaar et al, 2012). Others acquired techno-competencies because they were motivated by keeping in touch with their immigrant children. Many learned enough to be able to use Skype and operate video-calls. Some learned to play games and conduct small searches.

A few respondents were intermittent users, meaning, they take part in the digital sphere as long as they have a motive then quit as soon as their motive expires. Some of the intermittent users go back to use with the emergence of a new motive, others don't. Thus, the techno-field in the communities I observed revealed to be unique in some ways, yet similar in many aspects to techno-fields from other cultures. On the one hand, my sample of respondents complicated the relationship between demographics and usage. It was a mixed sample of educated younger

respondents making an informed choice not to use digital technologies, while other, older and less educated trying to become more engaged digitally. Also, in terms of access, while informants with limited income had the latest technologies, those with much comfortable financial situations renounced digital usage and digital devices.

On the other hand, as other research suggested, my respondents' digital narratives also demonstrate that access is followed by motives not skills on the scale of barriers to digital use. While most research shows that older adults have similar usage and attitudinal patterns, my informants show that non-users have similar attitudinal and barrier patterns regardless of age. They have similar attitude, discourse, and reasons for their lack of usage, which is mainly the lack of a motive. Helsper (2008) argues that those pushing for techno-competencies must first establish motives and provide relevance factors in order for the potential user to invest time and effort to learn and become fully engaged in the digital sphere.

The recurrence of the of absence of a motive as usage barrier may be understood as an age group habitus; a shared and widespread attitude that views the technology as important for the younger generations as an educational and entertainment medium, but not beneficial or useful to their age group beyond keeping in touch with their children abroad. In a way this could be attributed to the lack of a government campaign, which is often crucial to instill in the population the relevance of ICT to their lives (Warschauer, 2003; Lu and Straubhaar, 2014). The Tunisian government's' initiative to domesticate the computer (in the late 1990s) and then the Internet (mid-2000s) produced a tech-savvy new generation of young Tunisians (Ayeb, 2011) but was not combined with a campaign to explain the benefits of using ICTs or their relevance to the Tunisian population regardless of their age or educational levels. As a matter of fact, for a long time, the home computer remained a medium of entertainment for the younger generations until

teachers started asking students to use the Internet for homework or for research. This may have affected the older generation's attitude towards the medium, especially that many of my respondents expressed that they don't need to learn the Internet because the television satisfies their need for entertainment and information.

Once a motive is established, my informants had ample techno-resources at their dispositions. Their social entourage (family and community) formed a social capital that fosters the acquisition of techno-competencies and encourages the usage of digital technologies. Correa (2013) argued that offspring from marginalized social groups often *socialize* their older generations into acquiring techno-competencies. The effect of the social capital was embodied in the unique case of Kahina who leveraged the techno-resources at her dispositions to empower herself and improve her overall quality of life and sense of wellbeing. Kahina's insight demonstrates the capability of the Internet to empower the underprivileged and the ability of social capital to compensate for educational and economic handicaps.

Rogers (1995) argued that social capital is an integral factor in the diffusion of new technologies. While I agree with these arguments and find evidence in their support in some of my respondents' discourses, I would like to lay a counter argument that social capital can in some cases obstruct the acquisition of techno-capital. This argument is grounded on the discourse of the informants who reported their reluctance to learn because there is always someone who can connect on their behalf. In other words, these informants' social capital is actually a barrier to their learning. As a few of them articulated, their social capital is causing them to feel content with their assisted-digital technologies usage, instead of trying to learn technological and digital skills so they can enter the digital world by themselves.

Chapter 3: Attitudes towards ICT – Skype and Facebook.

Van Deursen and Van Dijk (2014) argued that an examination of the attitudes towards ICT is fundamental to the understanding of the digital divide. This section is designed to the analysis of the informants' attitudes towards the technologies and the overall technological habitus that shapes the techno-field of the three neighborhoods from a cultural point of view. I examine factors that determine positive versus negative attitudes and trace how these factors affect the usage of certain applications and the rejection of others. The digital divide remains the guiding conceptual theme and thus this section is concerned with how attitudes and values affect the existence of usage gaps; in other words what cultural beliefs drive the formation of usage gaps and what beliefs foster the shrinkage of these gaps. I begin by an overview of the scholarly work on the concept of attitudes and the effect of the cultural and social traits on ICT adoption and usage. I discuss the impact of attitudes towards ICT in the context of the Tunisian and the Arab societies in general, which remains a theoretically unexamined area except for a few studies (Yasseen and Al Omoush, 2012).

This chapter is in line with an increasing impetus towards recognizing the role of culture based attitudes on the adoption or the rejection of ICT. Several researchers argued that technology is not a neutral social artifact; rather, it derives its meaning from the cultural values and social structure in which it operates. Several researchers stressed on the importance of situating the technology within the cultural values and belief system of the technology they inhabit (Straub et al., 2002; Loch et al, 2003). Loch et al (2003) defined culture as the set of unconscious beliefs, values, and behaviors within a defined group or a community. Cultural values constitute a measure through which good and bad are distinguished and applied (Bagchi,

2015). In their examination of the culture's impact on ICT adoption, Bagchi et al (2015) defined values as "the basis individuals use to evaluate people, events, and explain their actions and evaluations." Van Dijk and Hacker (2000) contend that a positive attitude towards ICT is indispensable for the adoption of the technologies. The lack of awareness of the benefits of ICTs and/or a negative attitude towards them obstruct usage even in the case of accessibility to the technologies. Rojas et al (2001) situate attitudes and technology awareness among the members of a family and a community within the matrix of techno-dispositions fostering or hindering technology use. A group attitude towards the use of the technology constitutes a habitus that most often deepens or reduces the digital divide without a conscious awareness of what engendered the gap or helped in shrinking it.

As Straubhaar et al (2012) stated: "members of the same group are the product of the same objective conditions and share habitus without realizing that their practices are harmonized beyond what they as individual agents know or wish" (p.7). Thus, a habitus could be described as a discursive construction of the attitudes and behaviors resulting from years of social and cultural experiences and perceptions of the information technologies. For instance, a habitus that discredits the accessibility and benefits of ICT for one reason or another, poses serious challenges to the adoption of the technology within that group's members. These latter reject the technology without consciously knowing that it is a direct product of their cultural habitus. This takes place regardless of the prevalence or scarcity of technology resources (techno-capital); a negative group attitude towards the resources will prevent its members from taking advantage of them even if they are available. Group habitus and its impact on technology adoption is particularly stronger in cultures with close-knit relationships between its members who tend to

106

gravitate towards the community for behavior references (Loch et al, 2003; El Gody, 2006; Straubhaar et al, 2012; Bagchi et al, 2015).

To map the habitus of a certain group, Straubhaar and his colleagues (2012) state that it is important to start from an understanding of what the technology means to the group members. In other words, do they view it in a positive or negative light and to which degree do they view its benefits and relevance to their lives? Loch et al (2003) used cultural influence modeling to examine Arab people's adoption of information technologies. The model was adopted from previous cultural and social studies literature and included culture-specific beliefs, technological culturation, and national policy and infrastructure. The authors found that these three cultural indicators significantly affect the acceptance of the technologies. Views on modernizations and foreign cultural influence had a particularly strong influence on the adoption process. In their examination of the cultural value orientations that influence the way Arab societies function, Al-Kandari and Gaither (2011) identified five primary cultural values: "commitment to religion, devotion to group, recognition of hierarchical order, resistance to change/attachment to history, and sense of pride" (p. 268). The authors contended that each of these values can create a barrier to changes; all together, they make for a strong change-resistance model.

Previous research studies revealed similar findings. El Gody's (2006) discussion of the digital divide implies that there is a rupture between the Arab society and ICT technologies due to attitudinal and diffusion issues. He argues that the rapid domestication of ICT in the Arab world was not coupled with a parallel human development in the region. He explains that the marginalization of women and the persisting high levels of illiteracy and poverty have created a significant access and usage gap in the region.

Several researchers (Dewachi, 2002; Loch et al, 2003; Straub et al, 2002; Albirini, 2006; El Gody, 2006; Askool, 2013) found that attitudes were the other significant reason for the slow diffusion of ICT in the Arab world. This line of research demonstrated that Arab people were cautious about information technologies when it was first introduced to their societies. Several Arab societies saw it as an extension of the Western colonization while others perceived it as a threat to their moral and cultural values. El Gody (2006) argued that the attitudes of some Arab regimes did not foster a quick adoption of the technologies. For example, in the case of Tunisia, the oppressing regimes feared the liberating power of the Internet (El Gody, 2006), which may explain the lack of a campaign accompanying the introduction of the computer and the Internet in the late 90s and early 2000s. The Tunisian regime may have preferred that the information technologies be viewed as merely entertaining media. In this study, not only did many of the informants see information technologies as a youth entertainment media, but also many perceived it as a threat to their social and cultural values.

This section proceeds from the premise that Arab society values and morals have a strong effect on usage patterns of Arab people and thus has an effect on the Tunisian society as well (Mills, 2005; Akour et al, 2006; Yasseen and Al Omoush, 2012). Tunisia could be described as a collectivist culture. The family is the center of all discourses, behaviors, and attitudes. However, I remained cautious in my analysis of the informants' discourses and left my theoretical framework open for a grounded theoretical outcome that respects the social and cultural differences and disparities within the Arab world. Indeed, despite the similarities in the cultural and social values of the Arab societies, the influence of these elements on ICT adoption is far from being homogeneous. El Gody, (2006) argues that there are deep educational, financial and social differences within the Arab world. In the case of Tunisia, while the country scores higher

than other Arab societies in terms of gender equity and literacy indexes, its technological infrastructure is less developed than other countries. Thus, it is necessary to situate the technologies within the Tunisian cultural and social context in order to examine the lens through which Tunisians view different technologies and their usage. I consider how the sense of family and attachment to the community form the basis of group habitus that significantly affect the acceptance of a technology usage and the rejection of another. I also use the informants' discourses to identify the different cultural values and attitudes that serve as barriers or boosters to ICT usage.

3.1 SKYPE: THE PLATFORM FOR A VIRTUAL RAMADAN

According to Straub et al (2002), Technology derives its meaning from the culture in which it operates. User assigned ICT values stem directly from the cultural and moral values of the society. This was clear in my group of informants' attitudes towards ICTs. They saw technologies through their cultural filter and thus Skype passed the cultural test with honors, while Facebook relatively failed it (or at least received mixed results). In fact, Skype has a privileged position in the informants' lives, families, and discourses. It has imposed itself in all my interviews. I added a Skype related-question to my key-informant questions after it emerged in all 6 pilot interviews. However, almost all my respondents discussed it before I asked them about it, showing how salient it was to them. For most of them, ICT was directly associated and, for many, synonymous to Skype use, whether because that is the only way they use the Internet or because most of the people around them use Skype.

Samia (a 61 year old stay at home mom), was very excited to talk about Skype even though she did not know what it is called. When I asked her if she ever uses Skype, her answer

was 'no' until her son intervened: "yes, you do, it's that thing you use to talk to me and see me when I'm not here." Samia's tone changed, she now sounded happy talking about the medium: "Oh! That's what it is! Yes, yes, I do, I use that. My other son 'opens' it and we use it. I asked him to show me how to use it and he's teaching me right now. I'm still learning. I asked him, I told him: I want to be able to 'open' it by myself and use it by myself." Similar to many respondents discussed in the previous chapter, Samia's excitement about Skype is motivating her to learn how to manipulate the medium and the computer by herself. For those who have family members living abroad, Skype facilitated and reduced the costs of communication with their relatives. Nourane explained: "We connect and talk to my daughter (in Italy). We see her and she sees us at any time. It's something completely different. My siblings used to study in Syria, Lebanon, and France, back in the day, I used to write so many letters, all the time. Even the phone. There was no phone that you could use to call them. After that the phone became available and now Skype. Skype is different because there is a 'picture'. And also, it doesn't cost money. The phone is really expensive. Even my family here all over Tunisia, I call them and see them with Skype. If I want to see my nephews and nieces I use Skype". Kahina as well uses Skype to talk to her family in other parts of Tunisia, she said: "My family from ElKef[40] here in Tunisia, even my family in ElKef and sometimes even people here, we talk via Skype. I don't waste any money that way. We send each other photos and so on."

Skype was integrated in Kahina, Nourane and other respondents' life as a space that allows them to maintain their close family ties. Almost all the houses I visited had a relative, mainly an offspring, who lives abroad. Thus Skype took a central position in their lives. Skype is their means to virtually unite what geographical distance separates, not only in terms of

---

[40] El Kef is a region in the North West of Tunisia, about 300 Km away from Sousse.

communication, but also in terms of the social practices that they are used to perform as a family before their offspring migrated. For instance, Refka (54 years old) spends time with her grandson whom she never met but who's used to her and knows her well because of their regular Skype calls: ""I see my son, his house, his kids, what he cooked and what he ate. The other day he even showed me the soup he was cooking! You know, he puts his son in his lap and asks me to talk to him and I start playing with my grandson through the screen... and kissing the camera and my grandson would be laughing and jumping like he's going to come to me through the screen." Two years prior to the time of the interview, Refka virtually attended her son's wedding. She described the event in details: "For my son's wedding, they put the cameras on... and they have this room they rent for weddings... and they cooked Couscous and Tajine and Slata Mechwiya[41] and the drinks! There were even alcoholic drinks! I told him, it's like you are here at home![42] He showed me the whole reception table. I was cooking couscous here too... and then he showed me his wife... My daughter was crying and he was holding back his tears. And I was crying too but was trying not to show him and was clapping and the neighbors came and they started clapping and singing too... It was a wedding celebration through a piece of glass (referring to the screen) [43]." *A wedding through a piece of glass* sums the situation. It was a typical Tunisian wedding with all the elements present: the community, the food, and the singing but through a virtual space. The geographical distance between Tunisia and Sweden was eliminated by the technologies which provided her a transnational space to be there for her son's wedding, and attend a celebration similar in nature to those Tunisians organize for their weddings in Tunisia.

---

[41] All Tunisian dishes often cooked in festivities.

[42] The food Refka describes is typical in wedding celebrations in the region of Sousse, where all family and neighbors are invited. Alcoholic beverages are commonly consumed by men in those celebrations.

[43] Refka explained that she was not able to travel to Sweden to attend her son's wedding due to financial reasons.

The *'piece of glass'* transformed the notions of place and time and created a space for instant interaction through transnational virtual spaces. For the Tunisian informants, social practices take place instantly despite the geographical distance as Adam (64 years old) reported: "We chat with my son on my daughter's phone or on the laptop. We talk with him as if he is here... He would be in his house with his wife and kids and sometimes we watch him cooking..." For many, Skype was particularly important during Ramadan, which is a cultural moment that has a special place in Tunisians' life. People fast all day long and get together at sunset around the family table to break the fast. They usually cook a wide variety of food with a few staple dishes that have to be on the table everyday (e.g., a Tunisian soup, Tunisian egg rolls, and Tunisian salad). Collectively breaking the fast in family is a revered tradition similar to the Thanksgiving dinner in the USA.

For the families that have someone living abroad, Skype allows them to connect with their geographically distant relative and virtually complete their family gatherings. Basma said: "In Ramadan sometimes, I would be breaking the fast and talking to him, it's as if he is here with me." The talking takes place through the virtual space while the "here" refers to her geographically-bounded location, her house and precisely her Ramadan dinner table. Nahla (62) goes as far as reporting what could be described as a transnational kitchen: "Skype is great, my son has been there [in Canada] for two years and I don't feel like I'm missing him that much. I see him every night. I see his house, I see his wife. Sometimes she asks me how to cook something, so she puts the camera in the kitchen and I tell her what to do. My son too, especially in Ramadan. I tell him now put this, now add that, now cut the onions... Now wait a little... And then when it's done, he tastes it and says: Mom, it's delicious! And I tell him: 'of course! It's like 'I' cooked it' (she laughs)." Nahla, does not only give her son or daughter in law recipes of

Tunisian Ramadan dishes, she actually spends time guiding him while he cooks. When I asked

Layla (the 72 year old from Zouhour) about her view of the Internet, her response was grounded

on the time she spends talking to her daughter via Skype. She said: "I think it's a great thing. It

brought people who are far away closer. You know in Ramadan, my daughter in Italy she asks

me, mom how do you cook this thing? So I have the computer next to me and I show her, I tell

her do this, do that. I tell her: boil the water, add the flour, add this... Add that... and she does

what I tell her. She tells me: it came out great. If there was no computer and no Internet, I

wouldn't even see her!"

The stories about the virtual collective cooking was overwhelmingly present in the

experience of the parents in my group. Kahina (57) also described moments of Ramadan cooking

that she shares with her son who lives in Europe. She said: "In Ramadan, he (her son) would be

cooking in the kitchen and I would be in the kitchen... and the IPad right next to me... I always

have the IPad next to me... like a TV set. I would be cooking and showing him what I'm cooking

and what I did or 'put'. Then he shows me what he is cooking. We would be talking like he's

here. Even when he comes, I don't feel like I missed him that much, '*chab-anin beb-athna*[44].''

In fact, it is worth mentioning how the transnational kitchen is both supporting existing family

ties and traditions but also challenging them. Given that the kitchen is not the typical place for

men in the Tunisian society, these moments of shared cooking with the "sons" is a product of

immigration and the Internet. Immigration compels the migrating sons to enter the kitchen and

cook for themselves, especially in Ramadan. Their nostalgia for the Ramadan table and family

time drives them to cook for themselves under their mothers' supervision. The Internet allows

them to instantly use their mothers' knowledge and experience to make authentic Tunisian

---

[44] Translates to 'our hunger of each other is satisfied'

dishes. Thus they spend quality time in their respective kitchens, which have been virtually connected despite being geographically separated. Thus, immigration and the Internet not only strengthened the preexisting family relationships, but also helped in overcoming years of predefined gender roles that kept the men out of the kitchen.

It is not only in Ramadan that the migrating children spend virtual time together with the family through Skype, they also include their families back home in their overall transition experience. For example, Basma's son gave her a tour of downtown Doha in Qatar. She said: "My son went in the traditional town where he lives in Qatar. He connected with me with his phone and he started showing me the town... he showed me the streets, the shops... everything! And then he said 'good bye, I'm going to have dinner now'. He always does that, he shows me where he's going what he's doing... everything." In her discourse about Skype, Kahina articulates its ability to delete the geographical distance. She said: "I think the Internet is the best thing that ever happened. It brings those who are far away really close. You need to drive 3 hours to go to Beja[45] but via Internet, you can bring Beja to you... in front of you in one minute! In one minute, I can see my son (in Italy), I see him even when he is in his car. My daughter gave birth two days ago in Germany. A few minutes after she gave birth she showed me the baby and I saw her and saw that my daughter was ok. If it wasn't for the Internet I would not have seen my daughter and looked at her face to know that she was ok." The informants' shared activities with their migrant children take place in a virtual space that creates a sense of proximity and relieves feelings of longing, despite the geographical disconnection. Wafa, literally articulated many informants' view that technologies are a remedy for homesickness: "Society is better today. You know, we used to hear some saythat there will be a time when you get a phone that 'looks at you

---

[45] Beja is a town in the north-west of Tunisia. It is about a 3 to 4 hour drive from Sousse.

and you look at it' and we used to say: What? No way! It sounded... just weird. But now it's a normal thing. And the Internet is great. It is great for homesickness and missing your kids." These informants not only satisfy their yearning for their migrating family members but they also use technology to reinvent family practices and traditions in a transnational setting. Immigrants and their families in their home countries often sustain modes of communication that create a network of cross-border cultural, social, and economic relations, all taking place on a transnational space and setting (Basch et al, 1994; Guarnizo, 1997).

Skype functions as the platform for this transnational space; it assumes a Tunisian identity and essence stemming from the social practices and experiences of the Tunisian users, and becomes shaped by their values and traditions. The users shaped its space and manipulated it according to their belief system and their daily life habits. Consequently a new cultural layer is added to the definition of space and time. These transnational communication habits also add a new culture-specific dimension to the space of flow, which refers to "the material arrangements that allow for simultaneity of social practices without territorial contiguity" (Castells, 2000, p. 19). Nevertheless, within this space of flow, the migrants and their families' position in the migration network is reconfigured and rearranged. Several research studies focus on the immigrants themselves as the ones living a dual and transnational life (Owusu, 2003; Christiansen, 2004).

Glick-Schiller (2003) uses the term "transmigrants" to refer to immigrants whose lives are rooted in and connected to two different geographical territories through technology-facilitated communication. Yet, based on this study's informants, I argue that the families in the home country themselves are emblematically transmigrants. Their daily existence is embedded in two different territories not only emotionally but also in virtual practices and activities. They

115

accompany their children in virtual tours in the host cultures, attend weddings, visit the newly born grandchildren, and cook and eat on the transnational space of flow. Thus, the combination of ICT, immigration, and strong family ties, are adding another layer to our understanding of transnationalism and transmigration.

However, the users' social practices are also shaped by the technologies; driven by their family values, the informants who reported spending quality time with their offspring online are mostly elderly who appropriated a function of ICTs to maintain the family unit. In other words, they adopted information technologies to satisfy a specific emotional, social and cultural need. Thus, the way that the *'piece of glass'* as Refka called it, functions as a transnational agent of family solidarity and unity generated a positive view of the Internet and its applications. On the other hand, other information technology applications did not fit within these moral values and traditions, as discussed below in the case of Facebook.

3.2 FACEBOOK: "IT'S ALL FACEBOOK'S FAULT[46]"

One of the younger informants, Nacira (in her 30s) stated that Facebook is the most used communication outlet by Tunisian Internet users. She said: "In Tunisia, we only use the Internet for Facebook (she laughs). I'm not kidding, it is becoming a sickness. Facebook is the number one in the family." In fact, Nacira is not exaggerating. Facebook remains the number one most visited website by the connected Tunisians, followed by YouTube and Google.[47] Some, mainly younger informants, use Facebook to maintain their social networks and for news information.

---

[46] "Kullu mel Facebook" (it's all Facebook's fault) was the phrase one of the informants used to blame Facebook for the degradation of cultural values.

[47] http://www.wamda.com/2013/04/12-key-statistics-on-how-tunisians-use-social-media-infographic

Naima (52 years old) learned to use the computer and the Internet through Facebook. She explained: "My children taught me how to connect. They taught me how to use Facebook and they taught me how to play games. They taught me how to use the computer too. They would be using it and I would sit next to them and they show me how to use it." Walid, a 31 years old from Kalaa described what he does on FB: "I talk to my friends, I follow sports groups, I read the latest news on sports. I follow groups about electronics as well." Others use it for personal interests and for work-related purposes as in the case of Yasmine, the high school teacher: "I follow a lot of groups for women... groups for fashion, accessories, clothes, kitchen and recipes. And there is a group for teachers, I use it a lot too, I participate in it too. Sometimes I'm not convinced with something so I ask a question and they answer me."

For many of the respondents, Facebook is used for communicating with friends, in addition to the other information, shopping, and general interest related activities. Farook (the 30 year old) also uses Facebook for news in addition to other activities. He said: "On Facebook, I order clothes... I talk to my friends abroad and... and I follow the news." Facebook links the offline world with the online sphere as Facebookers mostly use the platform as an extension to their offline community and social networks (Lampe et al, 2006). Thus, the maintenance of existing social ties is one of the main uses of Facebook regardless of the age of the user (Ellison et al., 2007). For instance, once she learned how to use it, Naima's (the 52 year old from Zouhour) usage pattern was similar to the rest of the younger Facebook users: "I have a Facebook and I use it to talk to my friends, I look around. I share things... I like, I comment. I connect everyday whenever I have free time."

Several researchers argue that SNS enhance and generate social capital (Livingstone and Lievrouw, 2002; Ellison et al., 2007; Zhang et al, 2010). They also found that SNS disembeds

117

communication from the traditional physical locality and give it more spatial dimensions and more flexibility over time. In addition, it empowers its users through the maintenance and expansion of their social networks and thus enhances their social capital. That being said, my informants' view did not correspond or match the scholarly found benefits of Facebook and SNS in general. Not only did they perceived them in a negative light but also their views affected their attitude towards the Internet in general. Those who had an account and reported being Facebook users had mixed feelings about the Internet and Facebook.

Farook explained: "It's good and bad. It's a whole world, it shows you everything, but for the kids, it's not good at all, parents must control their children's use. Especially, especially on Facebook! They can waste a lot of time. They have to control the time." Walid based his view on his own personal experience: "I think they could be used for good or for bad. The good thing, you can keep in touch with friends or read news. The bad things, it can be very distracting when one has to study. You can get into problems with the family too." He laughed and his mother nodded in agreement and laughed too. He explained: "I said something in the family group, it has the whole family,[48] and to this day, some of my family members don't talk to me." Molka (34 years old) was very distrustful about Facebook to the point where she felt the need to watch over her daughter's use of Facebook and used the assistance of other family member to 'protect' her. She reported: "When my daughter opened her Facebook account I didn't have to open an account as well because there was somebody monitoring her. Her uncle was monitoring her. I still sit by them sometimes when they're using it and watch what they do."

At this point, it is clear that the narrative about Facebook is family-based. Despite reporting being avid users of Facebook, both Farook and Walid's discourses are grounded in the

---

[48] Walid refers to the extended family, his mother and father's cousins and their offspring.

family dynamic and their cautious attitudes stem from the website's impact on the family and the relationships within it. They both saw it as a threat to the family's relationship, solidarity, and well-being. Another self-reported avid user of Facebook, Nacira, articulated most informants' fear of the threat Facebook represents to the traditional definition of the family. Nacira explained: "I think it has a lot of inconvenience. The problem is the family. The unity of the family is completely gone. It's a bad thing. Imagine we go out together[49] for a drink thinking that you're going to chat and talk together but you find everybody on their emails and Facebook."

It is interesting to note, through the above informants' discourse, the emergence of the top-down parental cultural transmission as a source of influence about ICT within the family. This flow differs from what we observed in terms bottom-up transfer of techno-competencies. In other words, while ICT adoption research demonstrated that younger generations affect their parents' adoption of technologies, it is the parents who influence the younger Tunisians view of technologies; their attitudes are the product of their social and cultural values. Bourdieu (1984) argued that parents transmit different forms of cultural capital, including attitudes to their children, which is why attitudes toward technology are also grounded on the parents' view of the world (Rojas et al., 2012; Correa, 2013).

Top-down transmission of attitudes also explains why the older informants had identical attitudes and a very similar discourse to the younger generations. Refka (the 54 year old) had a forthright negative attitude about Facebook, although she does not have an account and never used it Facebook. She noted: "I told my daughter it's better not to have a Facebook. It creates a lot of problems… many spouses divorced because of Facebook. So I told my daughter it's better if she stays away from it. Just use your phone to watch videos and talk to your friends and that's

---

[49] Nacira was talking in the context of the family and "together" was referring to her and her family.

it." For others, it is the problem of security and privacy that fed their distrust. Both Molka and Refka expressed a pattern often revealed in the domestication of the Internet studies. Parents, users and non-users, are often concerned about the effect of the Internet on their children's physical and moral wellbeing and feel a responsibility to protect them against the negative effect of the technology (Ito et al, 2010). Hover et al (2004) stated that in order to protect the family values, parents often go as far as placing strong rules and restrictions to control the children's ICT use.

Morals and cultural values were a especially strong source of ambivalence towards Facebook in my group of informants. Baraa (56 years old) the highs school teacher and Mosque Imam expressed a strong, moral-based view against Facebook despite having an account and being a regular user himself:

> *Interviewer: What do you do on Facebook when you access it?*
>
> *Baraa: I read news... There is our "branch" of elementary education domain, I access it to see what's going on in education... News about education mainly... Also, some communication for friendships but not that much. Very rarely.*
>
> *Interviewer: Do you ever write a status or post pictures or…*
>
> *Baraa: No no no, pictures, never! ... Why? Because you know the Arab mentality... the problem is... we use Facebook and the Internet the wrong way. Other people use it for research and we use it to… first, when you enter the Tunisian Facebook, all you see is people with fake names. Why does one have a fake name? To flirt and 'bleda' (bad immoral behavior). The Tunisians who use Facebook, 80% of them have fake names[50]*

---

[50] Baraa's statement about Tunisians using fake names on Facebook is mostly true, however, it has been argued that the large number of fake names was due to a general distrust in the Internet and how personal information are being

and switch their genders. And that shows bad intentions, not good intentions. If they had good intentions, they would use their real names.

Interviewer: Ok... so in general, how do you see Facebook being used?

Baraa: In a negative way... negative... negative... Very negative. There are people who are geniuses in computer... but they use it for "scamming"... So they would take your picture and do things... things that you wouldn't even think of! They would even use your account and use your name to talk with people that you respect about unspoken things! So I don't put my pictures.

In his way of describing the usage of Facebook, Baraa neutralizes the technology itself, instead he blames the users and considers the "negative" usage as ethnically-based problem, a direct result of the "Arab mentality," which, according to him, leads to misuse of the technology and of personal information and renders Facebook a dangerous space and a threat to privacy, morals, and existing network ties[51]. Baraa perceived the technology itself to be free of transgression; rather, it is the user who chooses to apply or to renounce his or her moral values when using the technology. That being said, the prevalence of the mixed feelings and the negative attitudes towards Facebook masked the positive usage and social practices. Baraa and many of the connected informants reported using Facebook to keep up with the latest news in their professional domains and to keep in touch with existing social ties. However, when asked to discuss their attitudes toward the medium or how others are using it, their narrative was mostly focused on the perceived negative modes of usage and none of them explicitly noted the time they spend on Facebook as a positive aspect of the medium.

used online. Concealing real identities was also part of the general state of fear of authorities as one could find him/herself persecuted for any comment or action.

[51] This view was actually largely shared by other informants but in their discourses about the Internet in general, a point that will be discussed in greater details later on in this chapter.

Many informants reported engaging in family activities or spending time together with other family members because of Facebook, hence the non-users knowledge of this online platform. Several older informants reported that their children show them "things" from their accounts and their newsfeed. Dhiaa (53 year old from Zouhour) said: "I see news sometimes on Facebook. When something happens in Tunisia, my son would show us what is going on through videos on Facebook." His wife proudly corroborated his comment. She said: "'Montassar' (their son) showed us everything and told us everything... Everything that happened... Whatever happened we know it from Facebook." Their son - also present during the interview along with his siblings and a couple of neighbors- added: "Every time I see something I know would interest them I show it to them... And they know what is going on Facebook and Twitter from Al Jazeera. They always watch Al Jazeera and it has a program where it shows what is going on Facebook and Twitter so they know from that too."

Monji (61 years old) also explained how Facebook allows him to spend time with his sons. He said: "My sons search things on Facebook all the time and then they call for me: Dad come see this... dad, check this out. I take a look and that's it. I didn't want to have an account on my own (he laughs)." He also reported how his son screens his favorite soccer games on their computer: "My sons have the games of my favorite soccer team on videos… recorded on some kind of video... On the Internet (YouTube)..., they have its participation in the soccer Clubs World Cup and I always ask them to play the final game for me, and we watch it together... We watched it together so many times."

Wafa's family often spends time around Facebook to the point where she feels satisfied about the platform and does not need to learn to use it or have her own account. She reported: "I know what they are. My sister especially follows Facebook a lot. She tells me and shows me

things. She shows me recipes and religious information. She shows me pictures of the family. My sons show me a lot of things too. I don't need to learn. When my daughter posts something or sends something, my sons show it to me." Several research studies demonstrated that families members tend to gather around the Internet as a casual family activity (Ito et al, 2009; Correa, 2013). The few users accustomed the non-users to Facebook to the point where it became part of their technological ecology and media habits.

For the few users, their usage does not take over the time spent as a family. On the contrary, it has become a means for the different generations living in the same household or in the same family cluster to spend time together and to gather around shared interests and hobbies, whether it's soccer or food recipes. In fact, this observation is in line with Western-based research studies that demonstrated that technology use does not necessarily disturb the time spent offline with the family, or engaging in hobbies and personal interests and activities (Ito et al, 2010). Researchers found that family members share time together around the information technologies whether to transmit new skills to each other (Straubhaar et al, 2012; Correa, 2013; Lu and Straubhaar, 2014) or to create web content together (Ito et al, 2010). In the case of these Tunisian informants, many gather around the technology to teach others new skills, to Skype together, to follow the latest news especially in relation to the political situation in the country, or to screen TV content through the computer or the tablet. Thus, in these situations, ICTs support the family tight-knit structure and create new opportunities for shared moments between different generations.

3.3 FACEBOOK AND BREAKING THE MORAL CODES

One of the major concerns about Facebook is its threat to the social and cultural values and morals. In this section I use the language used by my informants as a baseline to conceptualize their fears and ambivalence towards Facebook. Spradley (1979) argued that cultural meanings are encoded in the language used by the informants. Ethnographic research is the process of collecting encoded cultural meanings and decoding them through the analysis of the symbolic systems of the informants' language. Through the analysis of the terms often used in their discourses about Facebook usage, I identify indicators of negative attitudes towards Facebook and Facebook users.

'Exposure' emerged as the first indicator of the rejection of Facebook use. Exposure was mainly attached to the concept of privacy. For the informants, exposing one's life online is breaking the notion of privacy. In the literature, the alternative scholarly word to the informants' notion of 'exposure' is the notion of "exhibitionism." It is defined as the act of revealing one's life and sharing personal thoughts on Facebook (Day, 2013). While this is usually a behavior attached to narcissism, Facebook popularized the notion and provides a platform for a broad audience to regularly exhibit large parts of their lives (Day, 2013). The word 'exposure' was mostly used by the informants to pejoratively describe what people reveal and post on their Facebook pages. Hajir (58 from Kalaa) found the idea of exposing one's life repulsive. Her choice of word against Facebook reflected her strong attitude: "I know Facebook... And I want to *'curse'* whoever made it (she was serious when she said it but she laughed when I laughed)... Because the West made it to advance 'themselves' and we use it to 'expose' ourselves." Amira, a neighbor and a relative who was helping her prepare a Tunisian dish at the time of the interview, agreed with what Hajir said: "everybody is on it and they are all exposing themselves and their

whole lives!" Amira continued: "Us (talking about Tunisians)... we are using it to do things that I can't even describe. It's not a good thing. We should use it to do things that improve our lives and benefit us not hurt others." For both ladies, life matters are private and sharing them with a large public is morally wrong. The idea of a whole network of people who are not necessarily part of the family is hard to digest for them.

Ayat provided an example that defines to a large extent the problem of exposing one's life in the Tunisian culture. She said: "I am saying that because it has created a lot of problems to people close to me. A lot of problems! For example, my sister who lives right next to me. Recently she posted her picture with her friends in a cafeteria. My brother in Germany saw it and a big problem rose because of that picture. If she didn't have Facebook, she wouldn't have posted that picture. My brother's only problem is that she posted the picture, it wasn't that she went out with her friends." While I initially thought that the problem was patriarchal in nature, it turned out that it is specifically about the privacy of the family affairs. The sister was free to do as she wishes with her life, but exposing what she does on Facebook is a problem that upset the family. In fact, the issue of privacy was not related to a particular gender.

The informants had a problem with discussing one's life or posting pictures on Facebook regardless of the gender. Wafa described her disagreement with all her children (her sons and daughter) posting their pictures on Facebook. She said: "Sometimes I think it's a bad thing. I personally think that it's not appropriate. My husband too he told them one time: why post your pictures on FB? We just were not raised like that and I haven't changed, my ideas did not progress with this time, so I still think that pictures are private and we shouldn't post them for everybody to see." It is important to mention that Wafa is the lady who felt satisfied with her facilitated Facebook usage because when her daughter posts pictures, her sons show them to her.

As a matter of fact, Wafa's mother Yosra (a 76 year old), had the same appalled view about Facebook, which tainted her attitude towards the Internet as a whole. She said: "It's bad, it's bad in everything. I think people now live in prosperity unlike before, but I still think before is better on all levels. Life was better. They know everything now, but everything has good and bad in it. But people can control that, they can learn the good and they can learn the bad. Before we had values, and respect, and humility. Now they put pictures and they put everything on the Internet. They put everything on the plate." Yosra perceives someone exposing their life, especially pictures on the Internet, as a lack of respect and a lack of "humility." It is a strong value-centric view of other people's behavior on the Internet. Besides, it is clear from the informants' discourses that the issue is not posting the pictures online in itself, the issue is that a broad audience outside of the family is going to view them. In other words, the issue wouldn't have arisen had the pictures been posted on a platform where only family members could access them. It is exposing one's life to a broad audience that greatly bothers these informants.

In her quote, Wafa mentioned that her ideas about exposure did not progress with the times. In fact, this is not an individual or personal trend, it is rather a character of the Arab culture where the cultural attitudes are so strongly embedded in the social structure that they are highly resistant to the influence of technological progress and influence on societies (Al-Kandari and Gaither, 2011). That is one of the reasons why cultural beliefs about technologies are more likely to be transferred in a top-down rather than a bottom-up fashion. As discussed earlier in this section, the younger generations are more prone to adopt their parents' cultural beliefs towards technologies even when they are techno-savvy or occasional users themselves.

For instance, Yasmine (35), the high school teacher had a very confused and almost appalled look and tone as she spoke about what people do on Facebook. She said: "I 'go on it'

126

just for chat and FB and to look at each other's pictures more than doing research or using it for research. Everybody is using it for entertainment. I saw a lady posting pictures of herself giving birth to her son, she showed everything, right before she gave birth, her hospital room, and then the baby just came out and everything. I don't understand why they do that! There are ladies who put statuses of every single thing of their daily life. Some post things like: I just had a fight with my mother in law, I just ate at this or that restaurant. And other people enjoying watching and reading all this!" Despite being a user herself, Yasmine clearly had the same negative view toward exposing one's life on Facebook as the older generation in the group of informants.

It is also difficult for Yasmine to accept the fact that people would enjoy 'watching' parts of someone else's private life. In fact, watching others or the idea of "voyeurism" guided the choice of words to describe what Facebook users do on other people's pages. Molka (34 years old) had the same attitude as Yasmine. She said: "I just don't like the idea of talking to your friends online, sending messages and sharing things. I just don't. You spend time and then what do you gain? If you use it for news or to learn things, that's ok. But just to talk to friends and watch your friends' pictures and birthday, no. I mean, people watch other people's pictures! So no, when she (her daughter) really learns how to use it, it's ok, I don't mind."

"Voyeurism" is in the essence of SNS. Day (2013) explained that voyeurism is the act of observing others, which is a generally inadmissible social behavior. However, on Facebook the act of viewing other people's lives (through their Facebook pages), whether with or without sharing information is generally acceptable[52]. Nevertheless, the voyeurism function of Facebook is not well accepted by the informants. Arab cultures value the privacy of others and religious

---

[52] On Facebook, someone who shares information and views other people's information is simply a Facebooker. A person who views other people's information and lives without sharing his or her personal information is called a lurker.

teachings stress on the notion of not "prying over" someone else's household or family (Sobh and Belk, 2011). Both voyeurism and exhibitionism are deemed to be breaking the privacy barrier.

Privacy in relation to the Internet is a broad and complex overarching concept often used to discuss issues related to identity, information, security, anonymity, and fraud to name a few. Bowie (2015) reported "a considerable consensus around the notion that we have privacy when we have at least some control over the information that others have about us." When not attached to the Internet, the term itself is much simpler to define. According to the Oxford Dictionaries: "privacy is the state of being free from public attention." The notion of privacy takes a culture-bound meaning in the discourse of my informants who view exposing one's' life as inviting the public attention, and view that public attention as an invasion of other people's privacy.

The third issue is "dishonesty." For Tunisians dishonesty is both a religious and cultural. The Oxford Dictionaries define dishonesty as an act intended to mislead or cheat. Almost all the informants had difficulties accepting the fact that people have the space and freedom to talk bad about others, spread "lies" about others, or simply lie to each other on the Internet. Mohamed (the 82 year old retired judge) said: "There are people who talk about important issues, and others who only criticize people or say bad things about others. Facebook is the most important site for people but they don't know how to use it." Qassem had a very similar discourse to Mohamed's: "There is only one good thing about FB, which is learning about people and learning about their ideas and their thinking. But I don't like that you can use it as a fishing bite, they fish people with it. For example, if someone wants to say something about someone else, he has the space on Facebook to do that." For Nacira, the issue of "lying" is ruining the benefits of Facebook. She said: "Even Facebook, it can be used for good things. It depends on the type of

groups you follow. You can get information about sports, fashion, or religion. It's an electronic newspaper and always updated. You can read all the information. People don't have time anymore to go buy and read the newspaper so they read Facebook. But unfortunately a lot of it is lies."

Several informants used the Arabic verb "Shawaha [شَوّه]", which is best translated to 'misrepresentation to the point of distorting and deforming the matter being represented'. They expressed a feeling that Facebook users distort the notion of what it means to be part of a family and a Tunisian person. "There is no privacy anymore. There are a lot of lies in there, a lot of lying and a lot of fake news. I used to trust Facebook and then I was disappointed. I have a lot of friends who closed their accounts." Said Yasmine, the 35 year old high school teacher. Lying has surfaced in the Facebook narrative as one of the most negative and non-acceptable aspect of the platform. Lying is intrinsically problematic; however the informants' negative views may be exacerbated by the fact that the Tunisian culture is strongly influenced by the Islamic values and moral teachings (Jeffrey et al, 2003; Al-Kandari and Gaieth, 2011; Jandt, 2016). Lying in Islam is a sin and thus the informants found it appalling that there would be a communication space where users can freely spread lies or gossip about others. Thus, the combination of dishonesty, voyeurism, and exposure generated a strong negative attitude towards Facebook.

3.4 SKYPE VS. FACEBOOK

Cullen argues that cultures that value strong family ties and face to face communication will reject, to some extent, the use of technologies as a communication medium. In the case of my informants, I detected some fear of the information technology effect on face to face interactions, yet they all valued its ability to bring those abroad closer through transnational

communication. Studies from around the Arab world revealed similar patterns. Arabs fear the

negative impact of the Internet on their social norms. The fear that it would challenge the essence

of their social values is a reliable predictor of the use or rejection of digital technologies (Akour

et al, 2006; Yasseen and Al Omoush, 2012). The dichotomy of Skype and Facebook served as a

double lens through which attitudes about information technologies in general were built and

established. The informants' perceptions of technologies and their impact on societies were

definitely grounded in their views of Facebook and Skype. I was stricken by the similar and

almost identical responses to my question about attitudes towards ICT in general.

One interview after another, the informants placed Facebook in juxtaposition to Skype.

For instance, Refka noted: "The computer is great, before, I used to talk to my son without

seeing him. I can't see if he's thin or if he gained weight... Now I can see him and even see his

kitchen, his rooms, his living room; he even showed me the laundry room of the apartment

complex where he lives... It's way better now." Studies found that Skype's cultural advantage

stems from its audio and video call features. Ito et al (2010) stated that "voice and vision are

often viewed as the ideal modes of communication because they mitigate the distances in time

and space that typically plague transnational families." (p. 171). Thus Skype was easily

domesticated and welcomed in the Tunisian households and represented the positive aspect of

information technologies.

In contrast, Facebook in my informants' opinions presents a combination of privacy-

transgressing features that embody the negative side of the technological developments. When I

asked Refka about how technologies changed societies, her response was grounded in her earlier

discourse about Facebook: "I think technologies made society worse. It made it a lot worse. In

fact, technologies have good and bad sides. The negatives is that it creates relationship problems

between spouses and people engaged to each other. And the good side, it's like in my case, I can see my son. We would be spending the evening here and he would be spending his evening there and we would be chatting via Skype as if he is here spending the evening with us. Then, you can tell he feels better, he feels less homesick."

Ahlam's view of technologies was also grounded in functions related immediately to her life and her family. She said: "I think society is better now. We see everything now on TV or on the Internet. We used to not hear about news and events. If someone dies we don't know about him. Now we do. Even though I can't read, my son and daughter tell me everything. They would tell me this happened or that happened. It used to be rare for someone to have a phone, now everybody has phones. Now we can talk to people abroad all the time and see them too. I see my daughter in Germany... My son and grandchildren in Switzerland. They call each other too and their cousin in Canada talks to them and to us all the time too." Similar to Ahlam, Dhiaa's narrative proceeds from his ability to watch soccer games on the Internet. He said: "I think today life is much better with technologies. There was no Internet or Facebook before. There was only phone, 'the house phone'. Now societies have advanced... You can even watch a soccer game on the Internet. My son watches soccer on the Internet and I watch with him. I only like soccer and my son puts soccer for me on the Internet." Nourane's view was very specific. There were three dimensions to the Internet in her mind: Skype, Facebook, and the rest of the Internet. She noted: "I think it's a useless thing [Facebook]. It is used to criticize people and it creates problems. It wastes time. The Internet is great. There are a lot of useful information. Technologies brought those who are far away closer. We didn't think technologies like these were even possible. Now they became necessary, like Skype or the phone. We need them now."

Even the younger generations' views of the technologies (in my group of informants)

were shaped by the cultural values of the Tunisian society. Several saw information technologies

as distancing people from each other. Ayat explained nostalgically: "Before, we used to miss

each other, we used to go visit or call each other and say "Aid Mabrouk" (happy Aid)... now

either people don't call at all or send a text message or send a group message on FB... for

everybody! You don't feel like it's for you. In the Aid, we used to go visit each other and sit and

eat the traditional pastries made for the occasion, now a message is all we do. I feel like the

relationships between people has become very cold (nostalgically)."

Yahya, the 36 years old technology savvy also expressed an ambivalent attitude; on the

one hand he valued the global communication and information qualities of the Internet. On the

other, he expressed a concern for the cultural values and the face-to-face communication. He

said: "Look, I am a *'moukhadhram'* (translates to someone who lived through and experienced

different epochs)... I was here before the Internet and at the end of the black and white TV era. I

think it made society better and worst. A good thing for example is that you can see the whole

world while sitting down. The bad thing is that it distanced people from each other. People now

call each other and so on... So technologies made you have a bigger network, but within the

family, a lot of things have changed. Instead of going physically to say hello, now people only

send a text message. But at the same time, people who are really far, you can talk to them."

Molka, the 34 year old stay at home mom also expressed her dissatisfaction with how

technologies have changed the Tunisian society: "technologies… I think it's a good thing... But I

think before was better. I think the relationships were better before... In Tunisia... Tunisia, in

particular... is worse because of the technologies. We don't know how to use it. People here only

use it for negative things." The social and political problems also fed the fear of Facebook as in

the case of Naima (52 years old): "It's good and bad. It's a sword with double edges. It's good because it reduces the distance and one can see her daughter. I feel as if she is "closer." Bad because... more than 50% is bad. Some websites are bad and a lot of news are bad too, lies, a lot of lies. Negative things. There are things that, us Arabs, are not really knowledgeable about. Especially youth, they fall for brainwashing, like terrorism." Nahla (62 years old) shares Naima's fear over the threat of terrorism: "I don't like the influence of the Internet on young people. Sometimes they use it to brainwash young people. You know those guys, they got recruited by terrorists through the Internet." When I conducted these interviews, the terrorist attack in Sousse and later the bombing of a bus transporting presidential guards in the capital, Tunis, were still fresh in the collective Tunisian mind. The media discourse focused on terrorist recruitment through SNS, which fueled the older generations' fear of the medium and its threat to their children and their society. Basma (55) explained her mixed views about technologies also inspired by her views on Facebook, she said: "knowledge is great. But there is 'debauchery'. It shows you the good and the bad and it's up to you to do what you want with it. It can take you to deep oceans. My youngest son showed me this famous guy that was on a famous TV show, he told me he's friends with him on Facebook. So that's a good thing. But at the same time there are others who use it to become friends with young guys to take them to Syria; that is bad and dangerous."

A large number of respondents, especially the female ones, viewed Facebook as dangerous to spousal relationships. Ayat stated that Facebook and the Internet are only for people who are not in a relationship: "Also, between the man and his wife, men are distanced from their wives. If it wasn't for the Internet... The Internet and Facebook... he would be talking to her and they would be spending time together. My husband is like that and not just him, a lot

133

of my friends when I tell them, they tell me it's not just you, it's the same with our husbands. I personally see it useful for a particular age group, for those about to get engaged, it's better to stay away from the Internet." Yasmine had a similar view: "Sometimes I see my husband sitting for a long time on the Internet and I start doubting... Is he on Facebook? He tells me I'm on MediaSat and I'm doing research and I know it's silly that I think he might be cheating on me but for a while I couldn't help it. But he told me to do research too so I can learn more and improve as a teacher. He works as clothing dye expert and he is always searching for new formulas and new colors, he is doing great in his job and his boss loves him." One of the younger respondents, Yasmine, the 35 year old high school teacher, refused to teach her mom how to use Facebook, but taught her how to use Skype. As with most of the interviews, the whole family was present when I was interviewing the mother, Nahla. The following discussion took place when I asked the mother about her techno-competencies:

> *Nahla: I only learned when my son moved to Canada. I asked them (my daughters) to teach me. And I didn't really learn to use the Internet. I only know how to "open" Skype and how to "close" it. I don't know anything more than that. My daughter taught me, she only taught me how to use Skype. But she wouldn't teach me more.*
> *Her daughter intervenes: Well, she wants to "learn" Facebook.*
> *Nahla responds: Whatever! My son said he's gonna teach me everything when he comes home. I didn't need to use it when I was working, I only needed it for my son.*

Similar to the rest of the informants, Adam (who is 64 years old) also had mixed feelings about the technologies. Skype is good for keeping the family values and Facebook is bad for threatening these values. However, he did not develop his attitude about Facebook on his own; rather, he built it based on his community's attitude toward the medium as he explained: "The

134

good thing is they reduced the distance. We can talk to people who live really far from us. The negatives, I personally didn't see for myself but I hear people talking and saying that there are bad things. I heard that people say lies about other people. They ruin their public image. The youth take that seriously, they believe those lies as if it's truth. They are all on Facebook and they believe everything they see. They say: It's on Facebook. But Facebook is not a prophet or a holy book. You shouldn't trust everything in there." Adam externalized what is implicitly obvious in the attitudes of my group of respondents. Hamida also had an opinion about Facebook inspired by what people say about it. She said: "I think Facebook is good but sometimes I hear it's bad, it has bad things. I think it depends on the consciousness of the people, if you want to do something good with it, you can do something good with it." The informants' use of the same terminology is a strong indicator of this observation. Their discourse was almost identical, the good side is Skype while the ugly side is Facebook and/or anything else that touches on family, religious, and cultural values. Both were interpreted through the perspective of the group. It is a collective attitude based on the group modes of usage. Zakaria et al (2003) described Middle Eastern societies as high-context cultures where the individuals' social groups such as the family or community, act as the source of all attitudes and perceptions of the world artifacts. In contrast, low-context cultures lean more towards individual autonomy and personal privacy. The Tunisian society fits within the high-context culture definition and hence the similarities in the language, attitudes, and consequently the collective rejection of one communication technology and the adoption of another.

The sense of community also fed other forms of attitudes about the technology's influence on societies. Some are negative and others positive, and each stem from a different reason and point of view. However, collectively, the respondents summed the positive and the

negative impacts on society from a Tunisian point of view. Layla (the 72 year old) sought her neighbor's support about her opinion about technology. When I asked her about how technologies changed society, the following discussion took place between her and Kahina, the neighbor who had joined us during our interview. Kahina is also another informant.

> *Layla: Before was better than now. We didn't have the Internet like now and we lived just fine. Too many expenses now. She turns to her neighbor: just say the truth Kahina, wasn't it better before? '*

> *Kahina says: Life was better before, but technology-wise, it's better now.*

> *Layla: I don't care about technology, she's asking about life now.*

> *Kahina: But it was a different life and now it's a whole different life.*

> *Layla: yes, "we wake up at an exact time and sleep at an exact time" (a phrase that means now everything is controlled), now there are ACs, when we had the traditional fans before, we would use them until we fall asleep. The AC makes me sick, the fans never made me sick."*

Monji (67) criticized the effect of technologies on youth and their education but valued the promptness of the Internet's information. He said: "I think technologies only taught people how to be lazy. Now when you need an information, you can find it really fast, without any effort at all. Before, when we needed a very simple small information, we would go to the public library and we would spend time in there and the librarians gets fed up with us: give us this book, give us that magazine, where is this reference... Etc. However, I have to admit now the information is more precise. When you get an information it is still fresh. When we got an information [before the Internet] it used to be at least 5 years old, today it would be the same day information."

136

Baraa echoed and articulated the point of views of these informants: "Every era has its negative and positive sides. Our problem is… ok... from a technological point of view, people now are more modernized and more than our era... From a "values" and "discipline" point of view, we are better than them. Way better. This is from a religious standpoint. But from the technological point of view, what did we learn from the technology? We have the computers, we have the Internet, but what did we learn from them?" Mouldi thinks that it's people who have changed, he said: "We used to have only TV but our time was much better. Now they have more technologies but people have changed. People at our time were much better."

Others valued the technology's modernizing effect. Nacira appreciated the globalizing effect of the Internet. She argued: "I think now is better, there is a general culture, a world culture; the world is all connected. A window to see the whole world without travelling. You can visit the whole world without visiting. Even places in our country that we never physically visited, we can see them on the Internet. A lot of people don't have the means to go visit the South (south Tunisia), with the Internet, you can be there in a second." Farook explained the positive side of technologies: "It's something we didn't think it was going to happen. One didn't expect that one day, someone would be far away and you can talk to him and see him. It brings everything closer. You can see the whole world. Even if you want to go somewhere, let's say, you want to go to Hammamet, you can enter online and check out the best places and best restaurants, you can see the road. There is a big difference and big time. It's true that they say, it was a good life, but now is better." Ilham (68 years old from Kalaa) said: "Now is better. Technology is alive and society is developed unlike before. We were ignorant back then. "Yahyal-elm!"[53] Everything became better now with the technologies."

---

[53] A cheer translating to "Long Live Knowledge!" or "Long Live Science!"

Hadir also touted all the modern functions and tasks facilitated by technologies. "It's extraordinary! It is great!" she exclaimed with excitement. "Even when you go to an administration because you need an old bill or something, it used to take them forever to get it for you. Now all you have to do is give them the number of your ID card and they would get you everything, everything you need right away. It advanced the country, our country and all countries. 'El Elm Nour'[54]." Habib the businessman appreciates how technologies facilitate businesses, he explained: "It made society better. It improved and facilitated things. So now, if you sell and buy things even from America, you can see it on the Internet, you can even buy it and pay your money and they would send it to you from there." Yasmine, the high school teacher articulated the knowledge gap between the connected and the not connected. As a teacher and a mother, she also valued the technology's organizational and computational abilities. She noted: "Technologies facilitated things a lot. It's like having another brain with you. A second brain where you can store work, souvenirs, information, etc. People who don't own technologies know things but their knowledge remains limited compared to those who have technologies."

The spectrum of the attitudes towards information technologies could be divided into two major categories; (1) a positive effect narrative entrenched in the transnational communication and the socioeconomic benefits of the technologies; and (2) a negative effect entrenched in a cultural morality and nostalgia to the old-times rhetoric. Sometimes, the two manifest within the discourse of the same informant. It is as if the informants are in the process of negotiating the technologies' effect on society. The concept of cultural beliefs and values was central to the perceptions of the technological impact on societies in general and communities in particular. Whenever the impact of a technological platform was easily measured through the

---

[54] Another cheer meaning "Knowledge is light/enlightenment"

cultural-value balance, as in the case of Skype vs. Facebook, the informants provided clear articulations with an almost unanimous agreement about the attitude towards the platform. On the other hand, their varying perspectives towards the socioeconomic benefits of the technologies could be understood as a result of the relative novelty of the domestication of the technology and of people's struggle to negotiate their meanings in Tunisia and the Arab society in general, a society known for being resistant to change and imposed development (Al-Kandari and Gaither, 2011).

3.5 THE TUNISIAN AND THE OTHER

Perceptions of how the cultural 'other' uses information technologies were not included in the key informant interview guide. The issue emerged spontaneously in the informants' discourse about the misuses of technologies. It was prevalent in their discourses to the point where the trajectory of their articulations led to a separate domain of analysis. In a way, it complements the analyses of cultural impact on perceptions of ICT and their usage, and adds another layer to the understanding of the narrative of Tunisians' attitude towards ICT.

The 'Arab mentality' discourse brought up earlier in this chapter about the misuses of Facebook emerged often in the discourse. Hajir said: "I see... I think for Arabs... people didn't use it to advance themselves, because they can do that if they want to. They can use it to improve their lives, but they don't. I think before was better. Now even birthdays, they announce them and put them on Facebook." Baraa sees the West as taking more advantage of the technology benefits: "They (the West) use it for the positive… very rarely do they use it in a negative way... mmm... Maybe a little. But they are more clear than us, ok? They created pornographic sites to make it clear… the (the user) knows… if that is what you want to do … go on do as you want,

you are free. Things are clear... Us? No. We only take the negative. If we used the Internet for

good intentions... Just take a look at the Tunisian Facebook. If you ask them if they know

something, like... A religious question, they would say, what is he talking about? If you get one

or two comments you should be happy. But try to put a picture of a naked girl... then, you will

see all the comments and discussion you will get. So really, we're not using this technology for

good reasons. It's all about 'our mentality'. Technologies, did not improve our society. It's not

the Internet that didn't improve our society. It's us who didn't let it improve our society. It's our

mentality, the Tunisian mentality that didn't let us improve. The Internet is a 'manipulable' tool.

It's like playdough, and you can do anything with it."

Monji (61 years old from Kalaa) had a similar view to Baraa's, he said: "Everything in

these new technologies has a good thing and a bad thing. From my point of view. It makes

everything within reach, you can find everything. The negatives are only for us, the Arabs,

because us, especially the youth, when we take the positives, we take only very little, but when

we take the negatives we take everything. But as a communication medium, it is just

extraordinary. Someone can be in America, and you can see him/her within seconds. A letter

used to take two months to get to you. Phone is very expensive, especially to call Europe. Today,

you can see someone anywhere in the world." What is most intriguing in the discourse about the

West, is the fact that the respondents were aware that ICT play a role in social progress and

development. Almost all of those who brought up the topic, mentioned that Westerners use ICT

to advance their societies.

The comparison with the Arab society takes an almost regretful and nostalgic tone that

the Tunisian or the Arab societies in general are not using ICT as productively as the West is.

When this discourse is put in the context of their narrative about their usage and the relevance of

ICT to their lives, one cannot find an articulation of the benefits of ICT to personal and social development (except for youth educational benefits). This is significant in a number of ways. First from a digital divide perspective, it adds to the understanding of the global divide and the effect of the perceived benefits of ICT to cultural adoption or rejection of information technologies. From a techno-capital perspective, this further explains the lack of usage despite the prevalent ICT ownership as the respondents do not perceive it to be well used by their entourage, and thus do not have the group disposition to encourage acquisition of techno-capital to "do" what their peers are doing.

In contrast with the view discussed above of the West vs. the Arab society, other respondents had a more conspiracy-theory inspired narrative. Qassem, the retired government employee, an avid reader and poetry writer, meticulously chose his words as he described the ICT in relationship between his culture and the West. He viewed technology as a means of economic control of the West over the Arab world and criticized the overwhelmingly quick adoption of technologies by Arab societies. He explained his point of view saying: "The technologies are great, today is way better, no doubt. But anything that goes too far is bad. In the Arab world, we consume technologies, we don't produce them. Everything that comes out, we quickly get it, whether home technologies, or automobile technologies. This was the purpose of the West, to produce these technologies to keep us slave to it so they can always control us with those technologies. They give us what we need with very expensive prices. This creative revolution is in fact an anarchy revolution and is a result of technologies and advancement in weapons and the technology of destruction. Technology is an evil that we can't do without. We're a consumer society and we need the technology but we can't produce it. We do not 'create'." Habib had a lesser tendency to espouse the conspiracy theory in his discourse than

141

Qassem, but still expressed his concern over the knowledge gap between the Arab societies and the Europeans. He took the opportunity to stress on the need to follow the path of "the Europeans" to advance our societies as he reported: "I think it's good for the new generations. They have to advance with science and technologies. Because if we don't advance, like the Europeans, they advance and we go backward. We have to follow them, we have to advance like them or better."

In previous research studies about Arab cultures' view of the West from an information technology perspective, the Arab respondents appeared to be concerned by the technological advantage and dominance. Albirini (2006) demonstrated that Syrian interviewees had a similar - to the Tunisian interviewees- ambivalent attitude towards the Western technological advancement. Some of his respondents appreciated ICT communicative and informational qualities while others complained about the Westernizing effect on the kinship-based and conservative Syrian Society. In general, people all over the Arab world fear the corrupting effect of 'Westernization', which fosters a negative discourse towards the West and the exported technology (Albirini, 2006; Jandt, 2016). Several researchers (Hill et al, 1998; Albirini, 2006) attribute the skeptical and distrustful perception of the ICT to the religious-based cultural values of the Arab societies. This line of argument contends that the more conservative the society, the more resistant it proves to be to technological adoption. Albirini (2006) stated that "computer technologies, like most other tools, select, amplify, and reduce aspects of experience in various ways. This aspect of the new technology may pose a threat to conservative cultures that value their own experiences."

3.6 GENERATIONAL CONFLICT

Another cultural attitude-related perception of the Internet was also based on another "us vs. them" discourse, though this time, it is a generational conflict that was articulated. Some viewed ICT as more suitable for the younger generations and less relevant and appropriate to their age. Hadir considered Facebook as more appropriate for younger generations with parental control. She explained: "The Internet is necessary but mostly for the youth. I'm 59 years, it's not appropriate to start chatting online and talking. But I gave my daughter her freedom to do whatever she wants on FB. She can talk to her friends and she actually shows me and asks my opinion. She would say: look this friend sent me an invitation, should I accept it? We talk and I tell her to be honest with me."

However, the majority of the respondents, even those who are not yet parents, indicated a concern towards the effect of ICT use and Internet in particular on younger generation. Hajir had a disagreement with her friend about how the younger generations are using technologies. Hajir remarked: "We are using it to do things that I can't even describe. It's not a good thing. We should use something to improve our lives and benefit us not to hurt others." Amira disagreed with her: "But there are people who use it for good, some use it to study with it." Hajir explained her point of view: "But most kids use it to play with it. And I think it's very bad for kids, not all parents are always at home with their kids... and you have kids who come home and use the Internet as they wish, it's absolutely negative for them and for the society." Not only does Amira see the younger as susceptible to the harmful effects of the Internet, she also views them as less resourceful than the older generations as she noted: "We lived without the Internet and we raised good kids. They turned out very well our kids. Did you hear the minister the other day? He said I used to go to school with only a pen and a bag. Now you have everything but get nothing."

Baraa the high school teacher shares her concern: "Most of the time, you would find all the youth addicted to the Internet... but they play games... they chat... they say profanities. We [they] do not use the technology in things that would benefit us. I's just the opposite, it hurts us, the Internet. We have our neighbor, that house behind our house (showing me), his son failed his baccalaureate exam just because he is addicted to the Internet and he wouldn't study. He stays up until dawn but he wouldn't study. It's an addiction! So, it's a bad usage of the Internet. The Internet, is a science, an advancement, but we do not use it in the positive way, we only use it in negative way."

Concerns about youth addiction to the Internet is a common ICT research finding. Ito et al (2010) examined the interaction between youth and new media technologies and found that many parents are cautious about the effect of the Internet on their children's physical wellbeing (mainly fear of addiction and sitting for a long time in front of the computer). Besides, the authors found that parents (Latin American) were concerned about the preservation of their cultural and moral values. The authors demonstrated that both parents who are avid users and those who barely used information technologies share the same uncertainty and fear towards the Internet. In line with the fears of the Latin American parents, most disconcerting to the Tunisian informants in my study was the corrupting effect the Internet has on the youth. They were mainly concerned about youth exposure to 'immoral' content and some yearned for the old times when parents strictly controlled media exposure. Yasmina argued: "The bad things, you must avoid the bad things that corrupt the values. Debauchery! Sometimes a young kid asks you a question that he is too young for! I remember when we first had the dish, my father blocked all the channels. He left us with 5 channels. I used to be very curious about these channels. But I think my dad saved us from those channels."

144

At this point of the analysis, one begins to notice the emergence of a conflict between the technology generation and the generation of technology (born 1949-1963). Sackmann and Winkler (2013) argue that "the fast technological changes, especially a change of basic technologies, enlarges inter-cohort differences and raises the likelihood of a conscious perception and description of differences as generational differences." In other words, different generations begin to isolate the social and technological practices that differ from their own. Older generations, in particular, perceived the practices of younger generations as deviating from the cultural and moral norms. Some of them blame the technology itself, while others neutralize the technology and view the youth modes of usage as the source of deviation.

Ito et al (2010) argued that many parents feel a moral responsibility to monitor their children's new media usage. The authors argued that parents who are themselves users of information technologies have fewer concerns about the technology's role in their children's lives. However, in this study, no attitude disparities emerged among the users and the non-users. Concerns over information technologies' influence on youth were reiterated by the informants regardless of their usage levels, their age, and gender. The only shared attribute that explains the disconcerting attitude is the fact that they belong to the Tunisian cultural values, which proved to be the strongest source of attitudes towards technologies. For example, SNS created a contentious space of conflict between their values and the characteristics of the networks. In other words, while Facebook allows for monitoring others' lives and exposing one's own life on the Internet, the informants viewed those characteristics as the most offensive to their cultural values which holds private life at a highly status. As a matter of fact, these culture-based concerns echo the findings of previous research studies. For instance, Albirini's (2006) Syrian interviewees expressed the same concerns over the immorality on the Internet and its effect on

145

the younger Syrians. Others saw it as part of a cultural invasion agenda that aims at breaking the structure of the Syrian and Arab society in general.

Ito et al (2010) reported a line of research that revealed a universal parental concern for the inability of the younger generation to resist the temptations of the Internet and to avoid falling into the negative effects of the medium. However, the younger generations are not as helpless as we tend to perceive them to be. For instance, while the older informants viewed the younger Tunisian generations as morally corrupt and "superficial," the new wave of social movement research considers them to be a significant factor in the recent digitally supported social movements. Zayani (2015) coined the role of the young Tunisians in the Tunisian revolution with the term "the youth factor." He argued that: "the new generation was marked by a growing consciousness about issues of civil liberty, social justice, human rights, and citizen participation" (p. 173).

According to Zayani (2015) young Tunisians' usage of Facebook reflected a growing discontent with the status quo. He stated: "It is from this perspective that one can understand the gradual transformation of Facebook from a favorite pastime to a space that gave rise to a culture of contestation" (p. 175). Allagui and Kuebler (2011) argued that the young Arab users were patriotic and concerned for their nations' political state, and used technologies to shake the grounds of the dictatorships. They remarked that "the emerging force of Arab youth is articulated to the development of communication technologies in these countries and to the creation of content. Arab youth have triggered online activism and online participation for many years now, challenging all practices of censorship." While I do not attempt to invalidate the older generation's concerns about the risk of addiction or the potential demoralizing effect of information technologies, I argue that the newer generations are more socially and politically

146

aware than their elders think, and when necessary, they know how to take advantage of information technologies to be powerful agents of positive social change.

3.7 CONCLUSION

In this chapter I examined an important indicator of the digital divide, which is attitudes towards ICT. I discussed Tunisian culture in particular and Arab cultural values in general. My analysis revealed that my informants had strong culture-based attitudes towards technologies. Skype was regarded in a positive light because of its transnational communication features that allows it to fit within the structure of the Tunisian family, culture, and values. In contrast, there was either an ambivalent or a negative view of Facebook as the informants feared its usage in morally inadmissible behavior such as voyeurism, exposure, and dishonesty. This is significant from a digital divide perspective, as the informants' culture-based views towards the two communication platforms shaped their overall views of information technology. On the one ICTs are valuable because they allow for the transnational continuity and preservation of family ties and solidarity. On the other hand, information technologies seem, or are perceived to be, morally corrupting because of the effect of Facebook and the Internet. In a way, Facebook and Skype represented the differences between the weak ties and strong ties. Skype serves as the platform for the maintenance of the strong ties, which consist of family, community, and other acquaintances with whom people have an emotional bond. Skype assists in the maintenance of the essence of the strong ties, which is the solidarity, the sense of shared identity. On the other hand, Facebook represents the weak ties, which are the acquaintances that people occasionally communicate without a significant and close relationship (Granovetter, 1973; Putnam, 2000; Chen, 2013). In other words, the informants in this study use ICT mainly to maintain the

relationship with their strong ties and have not yet found a significant interest and motive to maintain and expand their networks of weak ties. To link this observation with the previous chapter, one can argue that, at this particular moment of the ICT trajectory in Tunisia, the strong ties emerge as the main source of social capital, leading to literacy opportunities and psychological well being.

Interestingly, many overlooked the social and development benefits of ICT as a consequence of their strong views and relative intolerance of the perceived negative effects of the Internet on their cultures. The rupture between the technologies and the cultural values instigate feelings of exclusion from the digital sphere, since a community views itself included when they see the technologies reflecting their values and culture (Gere, 2002). Feelings of exclusions may lead the potential users to perceive the technologies as "not for them" or not "a place" that can contain and respect their values. The homogeneous attitudes coupled to the linguistic similitude and argument conformity indicates the emergence of a group habitus that fosters the adoption of certain platforms and the rejection of others. That is why, I reiterate previous scholarly argument that the understanding and consideration of cultural traits are indispensable to the examination of the digital divide, as cultural values contextualize not only the perceptions but also the technological practices of the respondents.

Cultural attitudes function as a techno-disposition that developed into a group habitus. This indicates the extent to which individuals use and value information technologies, and the degree to which they are willing to invest time and resources to learn how to use them. I am inclined to believe that raising awareness about the relevance and benefits of the Internet to the individual and community wellbeing and development could translate into a faster and larger adoption rates. This study's group of informants as well as their broader communities could

148

integrate the techno-acquisition process into their family activities as in the case of some of the respondents who acquired techno-competencies through their children and relatives.

Barney (2004) contended that Arab societies are in a technological transition period, learning to transition and adapt their morals and values to the network society and technological changes. I am leaning to agree with this statement. The informants' ambivalence towards the cultural values and effects of information technologies reflects this transition. As a matter of fact, doubtful perceptions of the benefits and negative effects are part of the ICT domestication process. People carefully consider and weigh the negative and positive contextual usage of the new media then slowly negotiate and articulate their place and roles in their lives and societies (Silverstone 1994; Silverstone & Hirsch, 1992). Thus, I argue that this study's group of informants are in a technological acculturation process. They are slowly adjusting to the technologies and the change they bring to their lives, while searching for ways to integrate them into their social web of morals and for practices that do not damage their most valued basic cultural structure.

Chapter 4: The Digital Divide and Political Participation

This chapter examines the effect of the digital divide on online and offline political participation. It explores the underlying factors driving the attitudes towards, as well as the decision to join or not to join, the political digital sphere. On December the 17th, 2010, Mohamed Bouazizi, a Tunisian fruit and vegetable street vendor immolated himself in his hometown, Sidi Bouzid. His act came as an immediate response to the daily harassment by municipality workers and as an act of revolt against the declining social, economic, and political situation in Tunisia. Bouazizi's immolation immediately turned into a popular protest beginning with the town of Sidi Bouzid and slowly spreading to the whole country. Facebook and other SNS played a significant role in spreading the word about the events that took place in Sidi Bouzid, immediately after he immolated himself. Several Facebook groups were created to follow the events, spread the news and updates from the revolting regions to the rest of the country and within hours they were followed by thousands of Tunisians (Nouri, 2013; Kuebler, 2011). Videos of the protests and demonstrations invaded the Tunisian cyberspace. Within a few days, the unrest had spread to the whole nation. Connected Tunisians from different parts of the country defied the strict Internet censorship and used mobile phones and Facebook (and to a lesser degree Twitter) to inform the rest of the country about the events taking place in their hometowns through videos and breaking-news-like information. During the events of the revolution, many Tunisians were glued to their computers and their Facebook accounts following all the news coming from Tunisia about the social and political uprising that took the country and the world by surprise. The

revolution was not televised[55] because of the government's control over the Tunisian broadcast media, but it was indeed Facebook-ized with instant news updates, pictures and videos constantly flowing from the revolting streets to the online sphere.

The fall of the regime may not have been a surprise to those following the Tunisian political and social landscape (Nouri, 2013; Bouhaffa, 2011; Kuebler, 2011), but the rapid pace of the events and the promptness of the news coming through connected Tunisian citizens who transformed themselves into citizen journalists were fascinating and worth an in-depth examination. Tunisians on the online sphere continued using Facebook to discuss the new political scene, actors, and parties, and the future of the country in general. For instance, Facebook and other media were also used to spread the news and updates about several sit-ins that took place in the government square "Al-Qasbah". Tunisians continued to put pressure on those leading the country at the time to change both the government and the constitution, which led to elections to form an interim government and a Constituent Assembly (Nouri, 2013)[56].

Following these events, researchers studied ICT and SNS as a vehicle for social change and key channels in the diffusion of information during unrests. A group of scholars theorize that the Internet is transforming online spaces into public spheres (Blumler and Coleman, 2009; Papacharissi, 2002; Dahlberg, 2001). The idea of a public sphere stems from Habermas' work on the sites where non-formal deliberation processes that may have impact on official decision-making take place. Habermas focused on the limitations of these sites such as the highly exclusive nature and the bourgeois dominance of the decision-making process (Coleman &

---

[55] Al-Jazeera was one of the few Arabic channels to provide news about the Tunisian uprising. However, it was limited to using videos and feed from the social media, as it was not allowed to operate or have correspondents in Tunisia (Harb, 2011).

[56] On March, 3rd, 2011, the Prime Minister at the time, Mohamed Ghannouchi stepped down and the interim President Fouad Mbazaa announced the formation of a new government and nominated Beji Caid Essebsi as the Prime Minister. He also announced the scheduling of a legislative elections to take place in summer 2011 (it was postponed later on and took place in October 2011).

Blumler, 2009; Buckingham, 2009). Buckingham (2009) argued that Habermas did not foresee the impact of the Internet and other technologies, which transferred the discussion spaces from the physical place of the village square or elite salon to the online and virtual space (Culver and Jacobson, 2012). However, many others build on the Habermasian notion of the coffee houses and intellectual salons, as places for public's exchange of opinions and deliberation, to argue that this process of public deliberation is transferring to the online space (Blumler and Coleman, 2009; Zayani, 2015).

Many scholars view the online space as a deliberative camp where a rational and critical citizen discourse takes place (Coleman & Blumler, 2009; Dahlberg, 2001). However, to transform the Internet into a public sphere, more elements must be taken into consideration than the mere ownership and access to the Internet. First, scholars argue that it is impossible to theorize for effective deliberation processes and to construct an online public sphere without an informed citizenry (Coleman and Blumler, 2009; Buckingham, 2009; Putnam, 1995). Another trajectory of arguments suggests that it is not enough to have the technology to produce responsible engaged citizens; there are in addition integral skills in media and information literacy for effective digital media use (Culver and Jacobson, 2012; Khonder, 2011; Moeller, 2009; Jenkins, 2007; Stern and Dillman, 2006; Livingstone, 2004; Delli Carpini, 2000). Besides, Aday et al., (2010) argue that the new media coexist with other channels of communications and should not be treated in isolation. According to the authors, the new media should be grounded in their historical and social contexts. Brassari and Trere (2005) contended that the web should be discussed as an integrated socio-technical system and that its usage and effect is interwoven with other social, cultural, political, and economic elements.

I build on this line of research to explore my group of informants' level of participation in the Tunisian online political sphere. Political participation is defined as actions attempting to influence government decisions and election outcome (Coleman and Blumler, 2009; Zhang et al., 2010). Political scientists measure participation with activities that include activities such as voting, being active in a political party, attending protests and political events and rallies. Recent scholars measure online political participation with activities that include forwarding political messages, or signing online petitions (Anduiza et al, 2010; Gil de Zúñiga, 2012).

A large part of the research conducted about the Tunisian revolution (and the Egyptian one as well) documents the events and discusses/analyzes the role played by ICT *during* and *prior to* the uprisings that lead to the Arab Spring. I am concerned that the growing fixation on SNS and online participation will obscure other important aspects of the political participation narrative, as much of the scholarship has focused on those "connected" and active online and only a few focused on the large number of the non-connected Tunisians and Arabs in general.

Faris (2013) studied the Arab Spring from the digital divide perspective. He examined the social inclusion potential of the public sphere and contended that in Egypt, the tech-savvy youth and urban elites were the main actors in the digital sphere and the amplification of their voices obscured the voices of other social actors. Kuebler (2011) asserted that the Internet provides a free space for the well-educated and the already active politically and socially. He points to the traditional media's role in reaching the general public in a way [unmatched] by the Internet because of its exclusiveness to those who are already active online and have a decent level of digital skills.

In an article titled "Arab revolution and social media: the digital divide as a barrier to democracy" (2012),[57] Elkamel echoed Kuebler's statement and questioned the contribution of the Internet to the knowledge gap between the tech-savvy youth and the millions of Arabs who are on the lower end of the digital divide and remain reliant on state and privately owned media as their main source of information. She stated: "A knowledge gap emerges, between the educated and the illiterate, the elite and the underprivileged; and it is the tech-savvy youth who are at the forefront of the fight for freedom." Elkamel also argued that a fundamental social and political change can only take place offline because of the high rates of illiteracy in the Arab world. That is why, the digital divide is no longer concerned with access but with different usage gaps that includes both information exposure and political participation as some of its dimensions.

In this chapter I examine the informants' offline and online political participation behavior as well as their attitudes towards the new political atmosphere in the country. I also explore their attitudes towards government services such as paying bills online or taking digital literacy courses if offered by the government in order to sketch a more comprehensive picture of the informants' political attitudes and behavior.

4.1 A NEW POLITICAL CONTEXT: "NO MORE FEAR"

I open the analysis by exploring the informants' attitudes towards the revolution and the new political context in the country. A new sense of pride is clearly obvious in the informants' discourses. The majority of the group were aware that the revolution has brought about perceptible change. Some of the social and economic changes were not greatly appreciated. For

---

[57] Published by Future Challenges. Retrieved on 01/30/2016 from https://futurechallenges.org/local/arab-revolution-and-social-media-the-internal-digital-divide-as-a-barrier-to-democracy/

instance, despite the fact that she got to vote for the first time in her life, Layla (72 years old) found it difficult to accept the economic consequences of the revolution. She noted: "Yes, I voted… But I swear to god, when we were under Ben Ali, life was better… life was easier in everything... Everything got very expensive all of a sudden. Now, the electricity bills come showing 300 (TND)[58] and 400! What could I have done [to consume that much light?]... 300 for electricity! That's more than a celebration hall[59]? My son used to pay 35 max for his house. My son only goes up to his house at night. My daughter only goes up to her house at night[60]. Yet, they have to pay 95 now! Why?? " As she was talking, her daughter in law who was attending the interview was nodding in agreement with Layla and shaking her head in exasperation. The others remained silent and I couldn't decide whether they had a problem agreeing with part of the statement and disagreeing with another. None of them however, was shocked to hear her voice a nostalgia for Ben Ali's era. After the post-revolution inflation, the numerous terrorist attacks in the country, and the general loss of a sense of stability and safety, it is not uncommon to hear people complaining about the situation and expressing their nostalgia for Ben Ali's times (Benstead et al, 2012). Feelings of frustration with the failures of the post-revolution governments to meet pressing demands began to emerge as early as 2012. Benstead et al (2012) claimed that about half the population reported feeling that the economic and social situation was better before the revolution. This is probably due to what Desai et al (2009) refer to as the

---

[58] Tunisian Dinar (TND) is the Tunisian national currency. It used to equal around 0.80 USD before the revolution, now it equals 0.49 USD.

[59] Tunisians rent big ballrooms that they call celebration halls for their weddings and other types of traditional celebrations. They are usually big to host the large numbers of guests (sometimes several hundred guests), have a stage for the traditional music bands and a stage for the groom and bride (in the case of weddings). They are usually expensive given the amount of electricity they consume each night and Tunisians often use them as a metaphor for high electricity consumption.

[60] Layla lives in a 3 story house with 2 independent apartments on top of her house. Her son and daughter, each lives with their own family upstairs, and all of them spend most of their days in her house. In fact, I interviewed her with one of the biggest crowds I have had around me during the interviewing process.

"authoritarian bargain" in pre-revolution Tunisia (and in other MENA countries governed by authoritarian regimes). The authors argue that authoritarian governments subdue citizens into trading political freedom and reform for financial stability, mainly through subsidized essential goods. Given that this was largely implemented under both the Bourguiba and Ben Ali regimes, Tunisians may have developed- and experienced- a sense of false stability and economic prosperity[61] (Zayani, 2015). Hence, the increasing nostalgia of some of the population for the old regime and discontent with the current economic, political, and media situations (as this chapter will demonstrate).

To the contrary of Layla, Qassem, the 72 year old retired public servant did not express any regrets despite his previous attachment to the old regime: "I voted. I have my political roots in the RCD[62]. I expected the revolution, you know... I expected that it would happen... the country was on the edge of revolting. I was about to retire then. When the revolution started, I wasn't with it... to tell you the truth... I mean... I never thought it was a 'revolution'... it wasn't like the French Revolution or the Bolshevik revolution. It was people moved by the oppression of Ben Ali and the decline of the country's values, like the education system and economy... it was declining... the nation-state was declining." Despite his ideological disagreement with the uprising, Qassem clearly understands the underlying reasons for the people's anger and legitimizes their desire for a change. That is why, Qassem and Layla were the only two who expressed a contentious view towards the uprising or its aftermath. The majority of the

---

[61] although they were unaware of the heavy reliance of their governments on debt

[62] The Democratic Constitutional Rally or RCD as Tunisians refer to it (*Rassemblement Constitutionel Démocratique*) is the former ruling party in Tunisia since independence (1956). The party was officially dissolved on March the 8th, 2011, by a court order after a strong, persistent pressure online and offline as protests in front of the RCD headquarters were very frequent from January 2011 until it was dissolved. All those who work in official positions or in the government offices were compelled to have an RCD membership and to participate in the RCD organized events. For the general public, applying for job positions with the government, registering for graduate courses, and getting a license to open a business required showing a proof of membership in the party.

informants expressed contentment with the change, especially with their newly found freedom. Hadir (59 year old from Zouhour) also mentioned the change in freedom of speech: "Now? Yes, I am interested (in politics). Ever since the revolution we all became interested in politics... Before, you couldn't even talk. You could go to jail."

Many informants articulated the changes as observed on both the community and national levels. For instance, Monji (61 year old from Kalaa) illustrated what could easily be described as a general trend in the country since the revolution, which is newfound tendency to closely follow the news and politics. He said: "I'm not interested but I follow all the time. I watch different news channels to get different opinions and I read newspapers." I note that Monji exhibits a consciousness of the post-revolution plurality of opinions, also newfound among Tunisians. Nacira from Zouhour was one of the most outspoken informants about the new political scene. She said: "Of course I'm interested in politics. Since the revolution of course. We weren't interested before. I'm speaking for all Tunisians. The very old were the only ones who followed news. But now even the youth follow the news."

When I transitioned from questions regarding ICT ownership and use to questions about political participation, I first asked about news in general and narrowed the interview down to questions about politics. The majority of the informants brought up politics and political news spontaneously before being asked about the two issues. For many, following the news (5 years after the revolution) is strongly tied to politics. What is worth reflecting upon is the statement that the person is "not interested in politics but I follow political news" overwhelmingly repeated across the interviews. Interest in politics and following political news are two different notions in the mind of the informants. For the majority, interest in politics equates to interest in political work. Because of the current situation in the country and the close link between the political

157

atmosphere and the social condition, Tunisians have been closely following political news even with a perceived lack of interest in political work or 'politics' to use their own words.

4.2 NEWS: THE NEW KNOWLEDGE GAP

For decades, the news in Tunisia were limited to a daily praise touting the magnanimity of the "father president" (Ben Ali, and Bourguiba before him), and blatantly depicting an image of a successful regime rising to the challenge of ensuring the people's prosperity and wellbeing. Tunisian became used to the newscast they watched on a daily basis with very similar content, and grew both skeptical about and uninterested in the national news (with the exception of sports news). The newscasts also focused on international events as a way to divert the public from the national news, and also to give a false sense of stability and content with the peaceful situation in the country compared to the countries shaken by conflicts.

Al Jazeera took the Arab audience away from their local national media, including the Tunisian audience. This was mainly because of the novelty of its content and because it was the first TV channel that addressed issues of social, political, and human rights nature in the Arab world (Zayani, 2015).

Today, the media scenery is at the complete opposite of the pre-revolution one. Nacira described the new political news sphere saying: "You know how it is like in Tunisia now. It's all about the news now. Ever since the revolution, "نرقدوا و نقومواعالاخبار" [Norkdu w n'kumu 'al akhbaar] (a phrase that literally translates to: we go to sleep and awaken with news). We were never interested in news before. Even those who don't know anything about politics, now follow political news."

The revolution sparked an interest in news and a desire to closely follow what is going on in the country. Farmanfarmaian, (2014) affirmed the recent popularity of news in Tunisia following the revolution, as Tunisians have been more interested in local news and the general state of their country. The interest is continuous, but peaks during particular circumstances such as the elections, or when major events takes place as in the case of the terrorist attacks on Tunisia. Baraa illustrated this point by explaining how his interest fluctuates depending on the political situation and events: "I do [follow the news]. A little bit. Especially when the situation of the country is kind of agitated, when something is going on, you are compelled to follow the news... obviously… when something is going on in the country, I seek news.... If nothing is going on, I stay... I always stay as far away as possible from politics."[63]

The question about the type of media use for news divided the informants into two groups: those who rely on the traditional media, mainly non-users of the Internet, and those who rely on the Internet as their main source of information, mainly Facebook; this group obviously gathered the Internet users. Baraa named the Internet on top of the list of media he uses for news information: "[I follow political news] through the Internet, TV, radio, newspapers. Newspapers on the Internet… all kind of media." Other Internet users in the group reported similar patterns regardless of age and gender. Nacira (in her 30s) stated Facebook as her main source of information. She said: "I follow the news on my FB newsfeed. On Facebook, you follow a lot of groups and get different points of view... Competing views and then you form your own opinions. I follow some people too who write statuses and opinions better than some newsgroups. I follow the president's group, the ministries pages, etc." Farook (30 year old taxi

---

[63] The point Baraa makes about "staying as far away as possible from politics" is likely linked to old pre-revolution reflexes among the populace in Tunisia to avoid questioning or even thinking about politics because it often led to retribution by the regime.

driver from Zouhour) echoed Nacira's view: "The TV… and TV hosts they have masks on their face… they take us for idiots... But on the Internet... There is everything... The Internet shows you everything."

Scholarly literature has revealed an increased pattern of SNS usage for news information (Zhang et al, 2010; Gil de Zúñiga et al, 2012). In Tunisia, the users rely on Facebook and the Internet in general not only because of their constant exposure to online news feeds, but also because they perceive the Internet as more credible than traditional news media (Ivey, 2014). For more than half a century, the traditional media have been a propaganda tool under the tight control of the authorities. Tunisians therefore grew cautious and distrustful of all forms of traditional press. This may have fed into the continuous distrust of the traditional media even after the revolution, despite statistics showing that 47% of people over 12 years old reported an improvement in the news quality since 2011 (Farmanfarmaian, 2014). Nevertheless, existing literature stresses the need for a fundamental media reform in the post-revolution Tunisia (Farmanfarmaian, 2014).

The traditional media remain the main source of information for the non-user informants. Basma (55) said: "for news, I use TV. For entertainment too... I use TV." Many echoed her media usage and stated TV as their main or only source of news information. Hajir (58) named the radio in the first place: "I listen to radio for news... All kind of news. Radio and TV... I listen to political news on the radio."

Seeing the disparities discussed above between users and non-users, I am more concerned with the knowledge gap resulting from the continuous usage of traditional media by the older generations while the younger are exposed to additional sources of information, political discussion and debates. Ivey (2014) argued that the connected Tunisians are not only exposed to

a wider range of domestic and international political news but also have a faster rate of access and control over the traditional media news through their online versions or outlets, resulting in a large information advantage of the connected over the non-connected. .

Van Deursen and Van Dijk (2014) contend that the knowledge gap is a predecessor of the digital divide, as more privileged segments of the population necessarily have more and faster access to information, as well as better manipulation and usage of this information. The authors claim that the gap widens between the users of traditional media and users of the Internet. The former don't require the same literacy skills as the latter. Traditional media rely on reading skills at the most, while the Internet requires a set of skills in addition to the basic literacy skills. That is why, "the more sophisticated citizens" (Gibson and McAllister, 2016, p. 245), i.e., the younger and more educated citizens, have a knowledge advantage over the rest of the population. Besides, through continuous use of the Internet, users develop more skills in a fashion that snowballs the knowledge gap (Van Deursen and Van Dijk, 2014; Gibson and McAllister, 2016).

Research about the political news information and the knowledge gap they engender was conducted in many countries through longitudinal studies. The existence of a knowledge gap was revealed in almost all of them (Prior, 2007; Fraile, 2011; Gibson and McAllister, 2016). In one of these studies, Gibson and McAllister (2016) measured the knowledge gap stemming from political news in Australia over a period of 3 election campaigns (2001, 2007, and 2010). They revealed an increasing socially concentrated news information resulting in a widening knowledge gap. In other words, citizens who are part of the more privileged segments of the society are more exposed to a variety of news from the Internet than less privileged segments whose news sources are limited to traditional media.

That is why, I argue that in Tunisia too, the difference in the informants' types of media used for news information will entail a knowledge gap between those who use traditional media for news and those who use the Internet (in addition to other sources of news information). That being said, I must bring attention to the potential role of the social capital in reducing the gap of outcome, as the younger generations broker news from the digital sphere to their parents. Several informants reported that they follow the online politics through family members as in the case of Hadir, the 59 year old lady from Zouhour: "Yes! I did (vote)... I followed the news on TV... and my daughter showed me news on Facebook." Aya, the 58 year old high school teacher who only uses the Internet to download the exams and lesson plans, also follows the online political scene through her son: "My son showed me. He showed me the presidents and government and their news. He shows me videos on news websites about their activities and what they do."

Although they keep their parents updated with news from the digital political sphere, the younger generations' constant exposure and usage of the Internet and SNS will maintain the digital disparities between the groups. Moreover, the users are more selective as to what points of view and what news sources they are exposed to. Facebook users have substantial control over their news feed and can block or allow any source of news. Those who are not on the Internet are exposed to a news agenda set by those who own and control the traditional forms of media. The users are aware of this trend and thus turn to the Internet to find "different points of views" as stated by Nacira.

Several research studies (Ivey, 2014; Gibson and McAllister, 2016) criticize the literature that emphasizes the potential of the Internet to increase political awareness and civic education arguing that these benefits will remain limited to the privileged segment of the society. Nonetheless, a few research studies use the exclusiveness of the digital political and information

sphere as a basis to criticize the determinist arguments that amplifies the role of the Internet and SNS in altering and influencing political participation (Ivey, 2014). As a matter of fact, the following section supports this claim as it demonstrates that both users and non-users of the Internet voted equally in the recent Tunisian elections and that the context was the most influential drive for voting rather than the media exposure.

4.3 VOTING BEHAVIOR

While media use for political information revealed the informants' differences, their voting behavior united them again. Almost all of them, except for three who didn't vote, took pride in the fact that they have voted. "Of course, I voted" was the response I got from most of them (as will be shown throughout this section). They all said it with a proud tone. It was impossible to miss the pride in their tone and discourse about voting for the first time ever in their life. Ilham, a 68 year old stay at home mom, was proud to report her consistent voting. She said: "I voted in every election! I made my opinions by myself. I watch the news and knew who I want to vote for." During the reign of Bourguiba, Tunisians almost never voted as he appointed himself president for life, and parliamentary elections were always rigged. Ben Ali reformed the constitution and re-introduced presidential elections. However, none of the elections that took place during his 27 years of presidency was free or transparent, and they were staged with chosen candidates to run against him. Ben Ali and his party would often declare victory with record high and notoriously questionable numbers (89% of the votes in the general elections of 2009 was the lowest result Ben Ali claimed, after having "won" the previous 4 elections since 1989 with an average score of 99%)[64].

---

[64] http://www.businessnews.com.tn/details_article.php?t=520&a=19191&temp=1

Thus, Tunisians seized the opportunity of the 2011 election and exercised their citizen rights for the first time, and then again in the 2014 elections. According to Malouch et al., (2014), during the first post-revolution election 73% of voters of the 40 years and younger age group, voted for the first time ever. Images of Tunisians standing in long lines in front of the election bureaus made the news all over the world (Figures 5 and 6).

Figure 6: Lines of Tunisians waiting to vote in the 2011 elections roamed the world.
Picture taken by Amine Landoulsi/Associated Press65

---

[65] Picture retrieved from: https://www.washingtonpost.com/opinions/us-helping-tunisia-to-make-sure-democracy-delivers/2015/05/20/05b029e4-fe75-11e4-833c-a2de05b6b2a4_story.html

Figure 7: In the 2014 elections, the lines were also so long they went very far in the street near the voting center[66].

Voting is probably the most popular and important political participation activity, but it is not the sole component of the concept. That is why, I attempted to explore other forms of online and offline political participation behavior. I began with a question about involvement in political parties or in political work in general. All but three respondents relayed a complete absence of such involvement or interest in politics. The lack of interest narrative is not culturally-specific. Extensive research has been undertaken in the area of voters' interest in politics in different cultures (mostly Western) and demonstrated a continuous decline in the public's interest in politics (Gil de Zúñiga, 2012). Scholars reported that in Western countries, voting rates also dropped continuously. On the other hand, voting turnout in Tunisia peaked following

---

[66] Picture retrieved from CNN Arabic website: http://arabic.cnn.com/middleeast/2014/10/26/tunisia-elections-pix Photographer unknown.

the political change of 2011. The new political context created a sense of patriotism and Tunisians felt that they "had to vote," as Yasmine (25 year old) said. However, the change did not prompt an interest in other forms of political participation. Many articulated that they are not interested in politics but interested in political news. For instance, a few respondents, deemed politics to be 'not for them' and thus were not interested in politics. Dhiaa (53 from Zouhour) stated: "Not really interested. I am a very simple man. I work and come home. I only like sports news and I watch it on TV." I argue that the culture of participation prior to the revolution in Tunisia plays a significant role in this "lack of interest" narrative.

In Tunisia political participation was part of the government's decisions and agenda, not the opposite. Only those active in the governing RCD party used to be active politically and it was viewed as part of their jobs. While the participation of the average citizens was limited to major events, as the government used to rally people in the streets during national celebrations for news purposes in order to broadcast a positive image of the country and the regime. Thus, many Tunisians as in the case of Dhiaa perceive 'real' participation to be limited to the 'sophisticated political figures and party members'. In fact, one of the respondents used to take part in these rallies. Monji (61 year old) laughed as he described his experience with being involved in politics. He reported: "I voted. I relied on my own convictions. But they all disappointed me... I worked in the capital and I know all the parties. But I don't have a liking for a group over another... I actually... I was more involved in politics when I was a Boy Scout. They would dress us up and take us to make the ceremony when the president or a minister was coming (he laughs)."

Qassem was involved in politics before the revolution, but his political activities at the moment are limited to voting. He voted based on his history as a member of the former ruling

party. He remarked: "I followed what each government was doing, on TV. Very few people talk honestly about the country and the people and their interests. I followed everybody's meetings and speeches and discussions on TV and then voted for Beji[67]. I thought he was the best for the country. And also because of my political roots. I'm from the RCD and not all RCD is bad." Baraa was also involved in politics, however, for a very short time during his college years. He stated that he soon quit for reasons related to his values and his religiosity. He disclosed: "I was interested when I was in college, when I was a student. I used to take part in politics. I was in a good political status [position]. I used to do political work. I was at a point where I was doing a conference. I was lecturing. I talked about reality. I said the truth. A [responsible] came to me at the end and asked me about what I was saying. I told him: that was just the truth. He said no, you have to lie and not say that. I told him this is the politics of lies! And I told him goodbye! Right there... Good bye! Never went back to political activities ever since. The politics that's going to teach me to lie, I don't want it."

Nevertheless all Qassem, Monji, and Baraa exercised their right to vote and so did many others regardless of their interest or involvement in the political sphere. I attempted to explore the decisive factors in their voting decisions and found that family members and traditional news outlet played an important role in voting behavior. Shokri (63 years old from Zouhour) remarked: "I voted in the last election. I just learned from people about the parties and from the campaigns. I read their programs and the one I liked I thought he was going to do that, so I voted for him. I didn't get in much discussion with people, I hear them out and that's it." Ayat (32

---

[67] Beji Caied Essebsi is the current president of Tunisia after winning the 2014 presidential elections. He is a former RCD official and held many administrative and government positions under both regimes (Bourguiba then Ben Ali). That is why, he is perceived with his Party, Nidaa Tounes, as the face of the old regime. Many, however, perceived Nidaa Tounes to be the strongest secularist party despite the history of its members, which led to the party and its president winning the 2014 legislative and presidential elections respectively.

years old) was exposed to her father's opinions about politics but what she learned from him prevented her from voting altogether: "No, because I wasn't convinced with anybody. I mostly learned about them from my father. He is very interested... And he voted but... but I didn't (she laughs). I am not interested... yeah... I don't get involved in discussions about politics."

Yasmine, the 35 year old high school teacher was also directly influenced by a family member, her husband. She said: "I'm not interested at all. I only voted because I had to vote. I don't even know what the person or party I voted for are like exactly. I watched my husband and family and friends. I literally asked my husband when he came out of the booth: who did you vote for? He told me and I just voted for that person." Ahlam (71 years old) went to vote despite her lack of interest, also influenced by her family views: "I didn't really follow the campaigns but I went to vote like everybody else. I heard people talk, people around me or during family gatherings, I heard them talking about someone in particular so I voted for him."

The lack of involvement in political work, beyond the act of voting, is closely related to years of oppression under one-party rule. The political scene was very exclusive; only those close to the regime could take part in politics. Others, who dared express different views, were faced by a notoriously ruthless persecution. That is why, I also argue that it will take time for the general public to develop a positive attitude towards different forms of political participation and involvement and to consider them an act of citizenship that could affect the decisions made by the government. I argue that close networks of relationships will play an important role in changing the attitudes and popularizing other forms of participations, as family and community members prove to be most influential on voting behavior. In my group of informants, the only person who reported participation beyond voting is Hamed (55 years old), an electrician from Zouhour. He explained his cousin's influence on his decision to join Ennahda party. He noted: "I

168

am a member of a party. Here in Sousse. The regional office of the party. Ennahda, voilà, the Ennahda party. I helped in the campaign... When it was the elections I helped, just like everybody. I gave fliers to my neighbors and other people... I helped in the meetings too. I go and we prepare the room, we put the chairs, we put the slogans up on the wall... Yeah, that's it. That's what we do." Without being asked, Hamed continued to explain how he joined the party and how he got involved in their campaigning activities. He said: "I voted for Ennahda. Like everybody else. Basically everybody in the family likes Ennahda. A lot of Tunisians like Ennahda. That's a well-known fact... That's why we won the first elections and the last ones too. You know my cousin is in Ennahda. That's how I got in it [the party]. Even before the revolution I liked Ennahda. He [his cousin] got in trouble with the [Ben Ali] government because it was not a 'legal' party. You know how it was 'with' Ben Ali... So my cousin got in trouble. But now we are both in the party."

The influence of family figures' discourse was reiterated in other informants' speeches. Dhiaa also has a cousin who influenced his voting decision. He said: "Most of my family members are 'Nahdawee' (a word used by Tunisians to refer to those who vote Ennahda or are members in the party), so we voted for 'Ennahda'... Our vote was Nahdawee (he giggled). My cousin is active in the Ennahda party, so my whole family voted for Ennahda party." The influence of the family and friends in the informants' voting behavior was not specific to a certain age, gender, education, or usage level. For instance, Farook, the 30-year-old high school dropout reported that his offline social network was the most influential in his voting decision. He said: "I went to vote... Of course... I only knew who to vote for from my friends and my family. We sit together at the café and we talk together." Being a taxi driver, Farook was also exposed to political discussion through people who ride with him, which is very common in

Tunisia. He said: "Online, I get into a lot of discussions but mostly sports discussions, I get into a lot of debates... You know about teams and so on... I discuss politics mostly in the streets, not much on the Internet. Even during the elections, I got into a lot of political debates, mostly with people who ride with me in my cab." Others, especially from the Zouhour area listed political campaigns in their neighborhoods as another influential factor in their decisions. Layla (72 years old) reported: "Yes, I voted. From people... from TV... from the Internet... and from the campaigns... and there were people who came roaming the neighborhood... here... to tell us to vote for this person or that person."

The role of family and community members in political engagement and voting behavior could be understood through Katz and Lazarsfeld (1955) two-step model. The authors argued that mass media messages are channeled "from radio and print (the media of the time) to opinion leaders and from them to less active sections of the population" (p. 32). The opinion leaders can be any influential member(s) in the social network of the audience (family members, friends, famous figures, etc…). Relying on opinion leaders results in networks of homogeneity (Schenk, 1994) where political discussion circulates among the close network (family or friends), who share similar cultural values resulting in a large conformity of opinions and political behavior. The opinion leaders often represent the social norms of the group and thus, they filter the news and information to fit the standards and culture of the group. To a large extent, this explains the agreement within clusters of respondents about one of the parties (Nidaa represented by "Beji", or Ennahda). The Arab world in particular, is an oral communication-based culture. People continue to value the word of mouth, their community, national, and religious figures and place more trust in them than they place in mass mediated information (Fandy, 2000). Consequently,

the influence of the close networks of relationship was clearly stronger on the reported voting and engagement decisions of the informants.

The same pattern of political information flow is relevant and applicable today to the online political sphere. In their examination of the influence of SNS on political attitudes and behavior, Zhang et al (2010) explored how peers affect each other's attitude and foster engagement among each other. That is why I argue that over time, members of the family or the community who are active in political parties may play the role of gatekeepers and introduce people from their social network to the political sphere through different forms of participation, both offline and online. However, as of now, the "I'm not interested" narrative is limiting the informants' participation to voting for various reasons. For the limited offline participation, I am suggesting that the lingering dark history associated with political engagement, i.e., either as a member of the RCD and a propaganda tool in the hands of the regime, or as part of a clandestine opposition and victim of brutal retribution. Second, which is most important, there appears to be a negative attitude towards online participation, stemming, largely, from the negative value-based attitude towards the digital political sphere.

4.4 ATTITUDES TOWARDS POLITICS AND PARTICIPATION

Ivey (2014) claimed that many Tunisians are not as trustful of SNS, especially Facebook as they used to be during the revolution and shortly after it. Ivey's Tunisian sample group reported that the proliferation of false news and the aggressive political atmosphere on Facebook are the main reason for its lost credibility. Many of my respondents echoed the claim of their fellow Tunisians from Ivey's 2014 study. Walid, 31 years old from Kalaa, is a regular Facebooker but does not take part in the so-called Facebook public sphere. He responded to my

question about online participation: "Never! I don't share or get in political discussion online. I do that with my friends at the coffee shops. Never with anybody else." The same discourse was reiterated by other users. Yahya said: "No, I never participate in online discussions about politics... Never... I talk with my friends... Face-to-face I mean... But not on the Internet... No."

Walid and Yahya's statements could be understood as a lack of trust in strangers preventing them from sharing political views or opinions. It may also due to feelings of fear of voicing political opinions, a feeling that still lingers after decennia of political oppression. Besides, cultural values play an important roles in their online behavior. Many of them were particularly concerned with the proliferation of immoral acts in the political sphere: lies, gossip, and spreading rumors. Nacira was one of the few to report patterns of online participation. She said: "I write and comment and voice my opinion all the time. I share what I think is worth sharing too. I participate in online polls. I sign petitions, any way I can participate, I participate." However, when discussing others' behavior on Facebook, Nacira had a very strong attitude towards the general political atmosphere on the medium. "On the Internet, there is an open competition. Everyone reveals the lies of the other. I had my Facebook before the revolution. But there was no news then, it was all controlled. Now, because it's *supposed* to be a democracy... now everything in there is insults over insults." Nacira has two clear stands towards the online freedom of speech; while she appreciates the Internet presentation of the "whole truth" and different political points of views, she dislikes and disapproves of the personal attacks and lies. Nacira continued on with the previously discussed value-based view of the Internet sphere[68] and so did many other respondents.

---

[68] While I was interviewing Nacira, she misunderstood my position as a media studies student for being a journalist and she insisted on telling me about a Tunisian TV channel product that completely bothered her. "Please, I really want you to write about this drama series, I really want you to write what I'm telling you right now." She then talked

For instance, Farook (30 years old) said:

Farook: I follow political news. There were people who tried to recruit me to a party, but I just followed my convictions. I watched news, I followed on the Internet, at that time, I bought newspapers too to read what they say. On FB, I just comment, I never share anything.

Interviewer: Why?

Farook: I don't know... I write... I write simple things... But I don't talk about others. I don't like to talk about others. The TV... the TV and TV hosts... they have masks on their faces, they take us for idiots, but on the Internet there is everything. I follow the ministries like the sports ministry... and the government's website... the president's website... Never everything else.

Farook, viewed sharing the news he reads on Facebook as a way of talking about others or recycling what he considers doubtful news about others. Thus, he renounced engaging in what he considered an immoral activity. Yasmine the high school teacher, also in her 30s, only once made a comment in a political discussion, also driven by her values. She reported the experience: "I only commented one time, I watched a video about a candidate (one of the finalists) on FB on our teachers' group, and I really liked his speech. Then I saw my colleagues saying something unacceptable... they were calling him names! They called him 'animal'! I commented and got

at length about her disgust of a private TV channel drama that, according to her, portray the Tunisian women in a bad light and in a fashion that does not fit within the Tunisian cultural and value framework. "I don't care what they say, I don't care about all the modernity speeches and arguments... I think as a conservative society we have to respect our values and not show the women in that light."

Nacira's conservative view of drama production was also reflected in her view of the political digital sphere. What is most fascinating about Nacira's case is that she was one of the few non-veiled women I interviewed. Popular neighborhoods have a high rate of veiled women and thus most of my female interviewees were veiled. However, Nacira was quite liberal in her clothing code, a great contrast to her conservative ideas, which shows the complexity of the Tunisian society as people filter what they appropriate from Western features of modernity (clothing, technology, food, and so on) without removing and disowning the essence of their cultural values.

into a discussion with them. I couldn't hold myself. I was very disappointed, they're educators!

They shouldn't be doing something like that. That was the only time I ever made a reaction to

something political." While Nacira, Farook, and Yasmine were from the same age cohort, value-

based views of online political participation was also prevalent among older users. Baraa did not

report regular online participation also for value-centric reasons. It fascinated me at the time of

the interview that he remembered exactly the instances when he was involved in political

discussions on Facebook.

> *Interviewer: Do you ever get involved in political discussions online?*
>
> *Baraa: (after he thought for a moment) hmmm... After the elections... yes... One time, I*
> *entered a discussion about Bourguiba... One time about Marzouki[69], and one time about*
> *Ennahda. When something really interests me, I react... But I don't really get involved...*
> *It's risky.*
>
> *Interviewer: What do you mean by risky? What kind of risks are you fearing?*
>
> *Baraa: Risk that one may be gossiping... You know? Talking about someone without that*
> *person even knowing that we're talking about him/her... They would say: someone said*
> *or did and you make a comment or share it... but it's not true! If you know the speaker*
> *100% then you can trust... but if you don't know the person, you can't share or comment.*
>
> *Interviewer: I see. When you said risk, I thought you mean fear of the government kind of*
> *risk.*
>
> *Baraa: no, no... There is no more fear. No... No more fear.*

This value-based view of the SNS political sphere could be understood as part of the

adaptation to the newfound freedom of speech in Tunisia. Tunisians are still in the process of

---

[69] Mohamed Moncef Marzouki is the previous president of Tunisia (2011-2014).

learning how to politically participate beyond voting. They are not used to personal political attacks and aggressiveness. For example in Western cultures, people are used to candidates attacking the history and policy-related issues of other candidates and sometimes even their personal lives. However, in Tunisia, because of the tight control of the previous ruling party, the RCD, people have never witnessed a debate, let alone an aggressive political atmosphere. In fact, campaigns in the Ben Ali era, used to take the shape of a national celebration, whether in the streets or in the mass media.

Thus, while some Tunisians considered the newfound freedom to be favorable to a new society and freedom of speech, others deemed it to be too aggressive and immoral to be part of, even by sharing or relaying political news. As a matter of fact, a Tunisian media researcher, Hizaoui (2013) discussed the term "media of shame," which is a popular phrase among Tunisians used to describe the post-revolution media. Hizaoui asserted that the perceived aggressive online political sphere resulted in nostalgic feelings for censorship and press restrictions among many Tunisians. Nevertheless, the majority of Tunisians as well as the civil society remain supportive of the freedom of press and freedom of speech (Farmanfarmaian; 2014). Farmanfarmaian (2014) argues that the misunderstanding of certain political concepts and the cultural disagreement with certain media practices are a natural result of the novelty of the political Tunisian scene. She contended that the new atmosphere will create hybrid political and media forms that are universal in their values, but cultural in the way they function. Hence, I am more concerned with the divide between groups exposed to a wider variety of information and political debate, than I am concerned with the freedom of speech.

That being said, it is noteworthy to mention the absence of correlation between being a user of the Internet and SNS, and political participation. Those who are connected are not

necessarily active politically while those who are not connected are not necessarily isolated from the political sphere. As a matter of fact, the only person who reported being active in a political party, Hamed, is one of the few who does not have access to the Internet at home[70]. This observation was previously made in a study about Tunisians and political participation. Ivey (2014) interviewed 40 Tunisians about their SNS use for political information and participation and found that only 4 Tunisians in his sample did not have Internet access at home, 2 of those were among the most active politically in his sample group. However, while, Ivey's informants reported online participation activities such as sharing news, writing statuses, discussing political issues, my group of informants refrained from engaging in the same tasks. This could be due in a large part to the age difference between the groups, the median age for Ivey's study was 24, which is the age reported to be most active in the online digital sphere and the age group that Zayani (2014) labelled as the "youth factor" of the Tunisian online social movement. Given that my group consists of rather older informants (the youngest being 30 year old), it is not surprising to sense the existence of a usage and online political participation gap between the two study groups.

4.5 TRUST IN GOVERNMENT

In the following section I discuss what I consider to be another most fascinating revelation in the collection of interviews. In order to understand the techno-dispositions of the informants, I included a question about willingness to take digital literacy courses if offered by the government. The idea of literacy courses for adults in Tunisia is nothing new; in 1992 the government launched a program entitled: "National Literacy Strategy" (NLS) aiming at reducing

---

[70] Hamed is the father who reported walking with his son to his sister's house often to use his nephew's' computer, Internet access, and assistance with his son's homework.

illiteracy rates among Tunisian adults. In 2000, the program and its results were revised and a new initiative was implemented under the title "National Adult Education Programme" (NAEP). Both programs offered late afternoon courses for adults who wished to learn how to write and read. While the illiteracy rate fell slightly as a result of the NLS, the overall evaluation of the program deemed it ineffective with poor attendance and a lack of commitment from the learners, especially women from rural areas, mainly due to the lack of awareness of the existence and the importance of the courses.

The second program, NAEP, focused its efforts on girls and women, particularly in rural environment. The NAEP was coupled with a mass media campaign targeting prospect learners all over the country. The new program also included incentives for the learners and the teachers in order to maintain attendance (e.g. end of the year prizes, free meals, free excursions, and reimbursement of the travel cost for those who live far from the centers). Furthermore, the program provided more flexible settings and rules in respect to the social situation of the learners (for example, mothers were allowed to bring their children along, classes offered at different times in the same area to meet occupational requirements, etc…) (Journal of Adult Education and Development report, 2004[71]). The new program proved to be more effective contributing to a drop of the illiteracy rates from 27% in 2000 to 18.5% in 2015[72]. A new Initiative has been launched in October 2015 focusing mainly on the women from rural areas and women and youth in high density popular neighborhoods[73] (Webmanager Center report, 2015).

---

[71] Retrieved from: https://www.dvv-international.de/adult-education-and-development/editions/aed-622004/literacy-and-basic-education/education-for-adults-in-tunisia/
[72] CIA Factbook, Tunisia.
[73] http://www.webmanagercenter.com/actualite/societe/2015/10/31/166839/societe-une-strategie-nationale-d-alphabetisation-et-d-enseignement-pour-adultes-en-tunisie

Adults with their notebooks and sometimes with their children walking to the schools in the late afternoons are not strange to the Tunisian communities. When asked about her willingness to attend digital literacy courses, Hadir (the 59 year old retired hotel housekeeper) said: "I would be the first one to go learn. Who would be offered courses and say no? People used to be illiterate and when they made those illiteracy courses everybody went to learn. Late in the afternoon, you would see all the ladies with their Quffa [قفّة][74] heading to the adult literacy classes. So if they make something like that, everybody will go to learn." I relied on this informant's familiarity with the adult literacy courses, to ask the rest of my group about their willingness to attend digital literacy courses if offered by the government. Although many of the respondents were reluctant to let their younger family members transfer their techno-competencies to them, almost all of them affirmed that they would go take digital literacy courses offered by the government.

Dhiaa reported at the beginning of the interview that his daughter "really" wants to teach him how to use the computer and the Internet but he refused to learn. "I'm not into it, I just don't care," he said. However, Dhiaa asserted that he would go to courses organized by the government if offered at proximity to where he lives: "I would go unless it is problematic... like... if it's too far from here, I won't go. But if it's here in the neighborhood, yes I would go." Shokri (63 years old) was very enthusiastic about the idea, to which he responded: "I would go of course. I would be the first to go... if I find someone to teach me... of course I would go." The same "of course, I would go" was reiterated with the same enthusiasm in the majority of the informants' responses regardless of their educational level. Hajir (58 years old) foresaw the potential benefits of acquiring techno-competencies as she remarked: "Maybe... I don't know...

---

[74] A Quffa is a traditional basket made with palm tree dry leaves.

Actually, it's good, I would go learn. You never know... one of my kids can move abroad and I will have to use it." The age of the respondents did not influence their willingness to learn. In fact, Nahla, the 62 year old retired nurse, viewed her age as a positive factor to learning. She said: "Yes, I would go to learn. I want to learn. I don't have anything else to do. I would love to learn. Especially at my age, I could learn a lot of things."

Younger respondents also, who are already users of the information technologies welcomed the idea. They considered digital literacy courses an opportunity to improve and advance their skills. Yahya, the techno-savvy, responded to my question about taking digital literacy courses saying: "Yes, why not? Even though I know a lot of things already… but on the Internet you learn a new thing every day." The female younger respondents weighted the idea based on their assigned gender roles, nevertheless, the answers were eventually positive. Ayat (32 year old stay at home mom) remarked after thinking for a moment as if she was contemplating the idea in her head: "If I find a place to put my daughters or someone to watch them, I would go. It would... It would actually be a very good idea." She then expanded on her point of view: "I'm with courses offered to learn how to use the Internet. Because I want to learn everything. In my opinion a person who doesn't know how to use the Internet is an illiterate person. And I don't want to be one of those illiterates." Being a college graduate Ayat had the terminology and a view of the digital gap that matches scholarly views about the digital literacy gaps.

Qassem's strong educational and occupational background resulted in a more broad and analytical view of the idea of digital literacy courses. He said: "I would go of course! It's extraordinary! And we need something like that... You know, it was Bourguiba who reduced illiteracy. I was sad to see that illiteracy actually rose under Ben Ali. And we made those adult

illiteracy courses but they [adult learners] don't come[75]. People don't come. Not because they

don't want to learn but because the method of teaching is from the 60s and 70s, that is not

effective anymore. If you use a computer and a screen, they would come, especially women.

Illiteracy is higher among women. Bourguiba used to use technologies, he used to screen movies

in the streets. Cinema in the street. I... I consider myself to be ignorant in computer and the

Internet... Without any 'complexes', I say it: I am ignorant in digital technologies... even though

it is extraordinary. I am trying to teach myself but formal courses would be great..." Qassem not

only described the importance of acquiring digital literacies in the information society but also

tackled an important educational issue in the new age, which is the conflict between the old

methods of teaching and the requirements of the network society.

In fact, many media literacy and education scholars argue that the new classrooms should

be designed on a multi-dimension literacy basis that includes media, digital, and information

literacies, in addition to the basic reading and writing skills (Culver and Jacobson, 22012; Tyner

and Gutierrez, 2012)[76]. The positive reception of the digital literacy courses may be attributed to

the fact that education is highly valued in Tunisia. The young as well as the elders were willing

to learn and attend formal courses. Given that education in Tunisia is free (including college) and

accessible to all, Tunisians have over time developed a culture and a habitus that expects the

younger generations to acquire university diplomas, which they equate with social and financial

success (Mills, 2005). Besides, one can argue that education and accumulation of formal

diplomas have become a habitus as their value has not changed despite the recent ten years of

---

[75] Qassem was the head official in the regional government administration during the late 1990 and early 2000, which is the period of the not so effective first adult literacy program, NLS.

[76] A new initiative for literacy courses has been announced in November 2015 by the Tunisian Ministry of Development. However, the announcement was made in a press conference without much details about the new program that explains whether new methods and new literacies will be included in the new adult educational program.

soaring college graduate unemployment. I often hear people complain that graduates now can't find anything to do, but then they quickly state that "a college diploma is better than *nothing*", or tell their kids that "even if you don't find a job, at least you are '*educated*' and have a diploma." Both statements, often heard even in TV series and talk shows indicate that in the popular mind anything less than a college diploma is equivalent to nothing and is equivalent to being illiterate or at least uneducated. In fact, when I piloted my study, the initial question about the level of education was phrased in a literal American survey and interview protocols: "What is your level of education"? However, after I received a few "manish qariya" [مانيش قارية] (I'm not educated) responses, even though the informants later stated that they went to school for a number of years (one actually finished primary school), I changed it to: "did you go to school?' in order to better adapt to the Tunisian state of mind.

However, it was somehow puzzling to observe that people rejected their children's offer to teach them but were very receptive of the idea of formal courses. For instance, Layla (72 year old), who had an exasperated tone when explaining her rejection of her granddaughter's offers to teach her, had an enthusiastic tone about the idea of government courses. She said: "I want to learn, I would go learn. Yeah, I would go... But I would go learn *if* the government creates courses." "If the government creates courses" caught my attention. I wondered why learning through the government courses is more appealing or more acceptable than instructions offered by a granddaughter in the comfort of one's own home. Two ways to interpret this tendency to accept something offered by the government is the observed is the fact that a formal setting is viewed and valued as Education and the observed effectiveness of the adult literacy courses[77]. This creates a trust in any program implemented by the government. Besides, in a way, digital

---

[77] Adult literacy courses is the phrase used in the Tunisian daily discourse about the adult education program courses.

literacy courses offered by the government validates the importance of learning to use information technologies. In contrast, the grandchildren offering to teach does not generate a significance or relevance factors in the mind of the older informants, especially those who reported a complete lack of motive and those who perceive information technologies to be appropriate only for the younger and well-educated.

In fact since the independence, Tunisians have generally been responsive to government campaigns and quickly adopted change even when fundamentally related to social and religious beliefs. For example, even though fertility and the high number of offspring was considered to be a sign of prosperity, Tunisians quickly responded to the government's campaign of family planning[78]. Family planning was part of the post-independence agenda to reform the society and thus was heavily advertised through the media of the time, through opinion leaders and through mobile campaign events (campaign vans that roam the country and meet with villagers). The Tunisian mass media constantly reminded the public about the benefits of family planning to their immediate lives and to their nations as whole. The campaign included other forms of advertising such as postcards and post stamps celebrating the program and popularizing the idea.[79] The campaign led to a significant drop in the birth rates (from 7.2 children per woman in 1956 to 2.9 children in 1994) leading to a stabilization of the population growth over the following years (Curtiss, 1996; Mills, 2005).

Al-Kandari and Gaither (2011) argued that Arab people highly respect their government authorities and the national decisions they take. Thus, it is within the norms of the culture to be more receptive to government-implemented programs, especially when accompanied by a strong

---

[78] I report the Tunisians' response to the family planning campaign with caution about its real purposes as many scholars argue that it was an imposed form of modernity for government's control purposes.
[79] Family Planning in Tunisia: Foundations Results Prospects ONFP, Ministry of Public Health Republic of Tunisia March 1995, p .19

and pervasive mass media campaign. That is why, I believe that the inclusion of digital literacies in the new adult literacy initiative will engender positive outcomes in terms of reducing the gap between the older and the younger generations[80].

4.6 ONLINE GOVERNMENT SERVICES

To further explore the digital divide within the group and examine their attitudes towards government offered services, I asked the informants about their usage of online billing services. The responses varied between the groups and the gender. Most of the men in the groups welcome the idea, the women, not as much for various reasons. Dhiaa (the 53 year old from Zouhour) said: "I think it would be a great idea. I have to go to the city[81] to pay bills sometimes. It would be great if I can pay bills from home." The men were more excited about the idea, the idea of not standing in long lines at the beginning of each month to pay the bills was quite appealing to them. Ahlam (71 years old) who can't write and read, articulated the problems faced by those with no to very limited education and no digital literacies, as the implementation of such programs assumes the acquisition of certain levels of digital competencies. She said: "It depends, I'm not sure how that is going to work. Some people will have the Internet and can pay online, for others who can't read or write like me, it's easier to go to the post office and pay the bills. You can't do something you don't know how to do. I don't do it anyways, my husband does it but I guess it's easier to go to the post office."

The men in my group disagreed with Ahlam's last statement. Shokri (63 years old) said: "It would be great to pay the bills online. We don't have to stand in lines. You just sit at home

---

[80] At the moment (Spring 2016), there are no information about the curriculum or the nature of the courses offered to the learners neither in the popular media nor in the scholarly literature.
[81] Zouhour is about 7 Km from Sousse

and pay the bills. It's just great." Basma, 55 years old from Kalaa, on the other hand, did not care much since she was not the one responsible for the task of paying the bills: "I don't really care, my husband pays the bills. When we get bills he goes and pays them. If it's something for my sons, they take care of it too, so it's not really my issue." The male informants found the online services appealing as it will facilitate a task they already exercise on a monthly basis. Thus they weighted the perceived attributes (Rogers, 1995) of the new function of technology and accepted the possibility of using it. Basma, did not have a strong opinion about the proposed idea because the function is not relevant to her. However, other women on the group formed their opinions immediately either by thinking of the social benefits of standing in lines and paying the bills or by the perceived (and sometimes experienced) difficulty of the task.

A few of the respondents who attempted to pay bills online found the process to be complicated. Abir, the 36 year old assistant pharmacist reported her attempt to pay a bill online: "They sent me a note once. They said I can pay my electricity bill online. I looked it up and then got lazy I didn't do it. You have to follow up and it seems like a big hustle, so I just thought it's easier to just go and pay it at the post office." While Abir is a user of the Internet, other informants with little education and a complete lack of techno-competencies foresaw the complication of the process that Abir discussed. Refka (54 year old) found paying in person at the post to be easier. She is so used to the process that it has become similar to a ritual. The people at the local post office are used to her and she is used to them and a sense of community has been established between the two. "It seems very complicated to pay bills on the Internet, I would have to put my money somewhere and get a card and learn how to pay, it's easier to just go to the post office when it's not busy and that's it. I would go when it's almost time to close

184

and I would beg the lady there: Hey "Saida" [the name of the lady], please let me pay. And she

would let me pay. It's that easy."

According to Rogers (1995), the perceived complexity of the innovation in addition to the

degree to which it fits in the social norms could be significant barriers to adopting it. Thus, the

social benefits of paying bills at the post office compared to the perceived complexity of paying

online, made the former win the debate in Refka's case. Hadir from the same community as

Refka, found the idea appealing but explained that the social appeal of paying at the post would

hinder its implementation: "Before we used to pay bills via phone. But now you can't do that and

I don't pay anything on the Internet. Even the Internet bill, we have to go to the provider to pay

it. It would be a good idea though to pay from my house. I would be sitting in my house and can

pay my bills. It's great. But here people like standing in lines. You can see this or that person on

the way to the administration and you can talk and gossip (she laughs)." In a way, the socializing

aspect of paying at the post office makes one questions the necessity of the implementation of

such services. Besides, it also explicated and justifies the tendency of Western countries to offer

services on different forms (by mail, online, and in government offices) as it respects the literacy

and cultural differences and characteristics of different communities and groups.

Naima (52 year old) summed the problem of negative perceptions of online services, she

said: "There are some things you can pay on the Internet but we're not really in that state of mind

yet. People are still scared, they don't trust paying things on the Internet. I personally would love

to just pay everything from my own house. You know they showed us on TV how to pay bills on

the Internet but we still don't use it yet. I'm talking about us the shaabi-yin [الشّعبيّين] (people from

popular neighborhoods). I'm not talking about the others who use it." Naima brings up an

important point, which is the community members' influence on one another in developing

185

perceptions and attitudes about a certain technology, program, or usage. Community members develop and perpetuate ideas about *who* they are and *what* they can or cannot do. In fact, one of the informants, Ilham (58 years old) thought for a moment and then as if she had figured out the condition on which she would start paying bills online responded: "If everybody starts paying their bills online I would do it too. I would do like everybody else, if everybody else is doing something, I would do it too." In other words, once again, culture and communities emerge as the most significant factor in the adoption or rejection of a technological platform or feature.

4.7 CONCLUSION

This chapter is grounded in the theoretical frame that the Internet is transforming online spaces into public spheres (Blumler and Coleman 2009; Dahlberg, 2001). Besides, social movement scholars who examined the Tunisian post-revolution digital context argue that, "the stakes involved in Internet governance are higher under the current regime than they were previously." (Artaud de La Ferriere and Vallina-Rodriguez, 2014, p. 641). That is why I attempted to investigate the social inclusion of these spheres and the overall attitudes of the informants towards political participation, digital political spheres, and government services.

A few behavioral and attitude traits emerged from the analysis. First, Online participation and voting behavior do not go hand in hand. Being the first free election in the history of the country, both the 2011 and 2014 elections attracted international press and scholarly attention. Much research has hitherto been conducted. While the youth are claimed to be the most active in the online political sphere, their voting turnout is rather low compared to older generations. Statistical data demonstrating that only 48% of the 18 to 24 year old age group voted during the October 2011 elections. On the other hand 68% of the 48 to 63 year old age group voted in the

same elections (Lefèvre, 2015). The disparities could be attributed to the youth dissatisfaction with the post-revolution governments.

According to Benstead et al, (2012) the youth in particular report being dissatisfied with the current government (60% dissatisfied in the 18 to 33 age group). However not unlike the majority of the population, they view the country to be increasingly democratic and are rather optimistic about its political future. Hence, despite their dissatisfaction with the government, Tunisians reported that they would vote in the next election (Benstead, 2012).

It appears that for a long time Tunisians have developed a negative attitude and a bitter stance towards politics, which is why despite their overwhelming voting and interest in political news, the informants reported that they "are not interested in politics." They viewed voting as a duty as a result of the new social and political context, not as a form of engagement in politics. The newfound enthusiasm about participation (even though they don't perceive voting as participation) could be nurtured into a more active and comprehensive view of political participation. Digital media can become a driver of civic engagement and political participation. Besides, given that the youth are the largest population on the digital political sphere (Ivey, 2014; Zayani, 2015), they could be brokers of civic skills and can spread positive attitudes towards politics within their families and communities.

The second important finding is the importance of government validation of programs and innovations. According to Martin (2015) democracy is a collection of values, skills, and practices established gradually, in which the culture interacts with universal democracy features to produce a cultural model of democracy. A fully democratic model must encourage citizens' participation in policymaking through positive beliefs, attitudes and perceptions. In fact, culture emerged again as central to the narrative of politics and political participation, and an appropriate

framework for understanding the acceptance of certain political practices and the rejection of others. Understanding political participation disparities and negative attitudes may be further enhanced by linking the cultural values of the informants to their trust in governments and authorities (in regard to programs and projects).

I argue that the inclusion of digital literacy courses in adult educational program and promoting their benefits to the general public may lead those who refuse to learn from their family members to change their attitudes towards the acquisition of techno-competencies. Developing techno-capital by the marginalized population groups could be a response to the information gap stemming from the media exposure divide between the information technology users and the non-users.

In regard to the role of the media, Farmanfarmaian (2014) contended that "agency is being exercised by and through the media as Tunisians develop new tools to discern who they are in an evolving and freer political environment." She argued that the revolution has created an unsettled space where "people exercise free agency and spontaneously improve what they do through practice and experience" (p. 614). Thus, addressing the attitude and usage gaps could turn the digital sphere into a space for exercising and developing political skills and competencies that could translate into an offline civic and political engagement, through time and across all population groups.

Chapter 5: Conclusion and Final Remarks –

The Tunisian Techno-Context

5.1 CONCLUSIONS: THE TUNISIAN TECHNO-CONTEXT

I conclude this dissertation with a summary of the findings and a discussion of the Tunisian contextualization of information technologies. The overarching goal of this project was to examine the digital divide in the Tunisian context. I aimed at situating information technology in the social and cultural context of the post-revolution Tunisia, while building on the historical background of the country. I began with the assumption that there is a digital divide in Tunisia with both scholarly literature and government data claiming that the divide is generational, occupational, and regional. The lack of qualitative data about the nature of the divide prompted me to engage in an ethnographic research to explore the digital divide in small community neighborhoods in the region of Sousse, Tunisia. I relied greatly on my position as a native ethnographer who is immersed in the culture, but who has also acquired a detached view and ground for cultural comparisons. Kraidy (1999) stated that "native ethnography occupies an intermediary position on the border between different worldviews. Because of their hybrid ability to negotiate a variety of traditions and contexts, native ethnographers are uniquely positioned to understand and conciliate these different cultural systems". Kraidy adds that the native ethnographer has sufficient familiarity with the informants' culture to understand jokes, single words with deep cultural meanings, and body languages.

I built on Van Dijk's recent findings that the divide is no longer merely about access, but is more usage-based. Therefore, I investigated both issues of access and usage, and examined

their indicators and underlying factors. Given my knowledge of the strong infrastructure of information technologies in Tunisia, I suspected that access would not be a major contributor, except for very low income families. Income turned out to be less of a factor than I anticipated, as the Tunisian diaspora plays a major role in domesticating the latest technological devices, and balancing access to technology among classes across the households of my informants by bringing technology back from abroad to their families in Tunisia. Moving on to the issue of usage, the informants demonstrated no particular divide patterns of demographic or social stratification nature. Some young informants were non-users while older ones were consistent users; likewise, highly educated elderly declined any type of usage while others with barely any education reported some to constant usage.

As a native ethnographer, I am familiar with the family and community solidarity, a vibrant and solid attribute of the Tunisian society in particular and the Arab world in general (Jandt, 2016). Therefore, I guided the interview to explore the patterns of accumulation of techno-capital through my informants' social capital among their extended families and communities. It was not surprising to learn that almost all my informants, regardless of educational background, had ample access to a variety of learning resources, mainly through family members (especially younger generations), neighbors, community youth centers, and *publinet* staff.

However, not everyone had the techno-disposition necessary to invest in learning through these resources. At this point in the analysis I wanted to push beyond access and usage to map the group habitus or collective dispositions towards technology, and explore the motives and attitudes behind the usage/non-usage and the learning/no learning decisions. It is only then that the indicators of the usage divide started to take shape. Both learning to acquire techno-

190

competencies and the decision to use information technology were driven by specific motives and perceived relevance. Those who rejected learning opportunities reported no usage motive and believed the information technologies had little to no immediate relevance to their lives. What further complicated the matter was that many reported a pattern of usage limited to one specific task, i.e., to chat with their children and other family members who live abroad. Given that the majority of the families I interviewed reported having a family member abroad, they all appropriated this communication feature of the Internet and used Skype to maintain the family relations, whether by themselves or through an intermediary. The practice produced what I referred to as the transnational living room and transnational kitchens, which defy the geographical distance to create spaces where family values and solidarity are maintained and reproduced.

Through the discussion of Skype, the effect of the Tunisian cultural values began to emerge as the strongest influence in almost all the usage and attitude patterns. The dichotomy of Skype and Facebook use conveyed this notion. The former was negotiated as a communication platform that fit easily within the tightly-knit family and community relationships and cultural values. On the other hand, Facebook was perceived as potentially detrimental and culturally inappropriate by the majority of the users, the young and the old, the users and the non-users, the men and the women. The fact that Facebook was used as a mass communication channel and a resistance platform during the events of the 2010-2011 uprising (Zayani, 2015) did not give it the benefit of the doubt. The informants seemed to be oblivious to its role in the social change that swept the country and toppled the previous regime. In today's post-revolution Tunisia, my informants appeared more concerned with the chaotic, aggressive and disingenuous nature of the political debate they see on Facebook. Most found this to be against what they referred to as "our

values". Over the course of their country's history and succeeding civilizations, Tunisians have developed a set of unconscious believes and values that define them as a group and a community and constitute the traits of their culture (Loch *et al.*, 2003). According to Bagchi *et al.* (2015), cultural values refer to the lenses or the balance that individuals of a certain community use to weight and evaluate actions and people and distinguish between the right and wrong, the acceptable and the unacceptable.

The same cultural balance was used to weight the positives and negatives of the political digital sphere; the verdict was a strong negative view of politics with a majority vote. In fact, in this research I demonstrate a complex relationship between Tunisians and their government. On the political level, the government was the face of oppression. On the administrative level, it is a trusted source of validation. It determines the relevance and validates the significance of new cultural and social artifacts. Even for the informants who resist learning through the social resources described above, acquiring techno-competencies as part of a government educational program appeared highly acceptable and appealing. Techno-competencies transferred by the family younger generation is not valued as much. That is unless there is a motive and a perceived relevance.

Based on these findings I revealed several traits of the Tunisian technological context. First, the diffusion process was incomplete; the government introduced a technology without introducing its benefits and values. Acquisition of the device itself is only part of the process. However, given the lack of targeted promotional and educational programs or publicly announced technological strategies, acquisition seemed to be the strategy, the process, and the end-goal for the Tunisian government.

Tunisians acquired computers in a peer-simulation fashion, they did not acquire it because of perceived attributes or to fulfill an established need. In other words, both the knowledge and the persuasion stages (Rogers, 1995) were bypassed. The younger generations domesticated information technology as a means of entertainment (beginning in the late 1990s) and for many it is still perceived as a "youth" medium used mainly for homework or entertainment. The analysis demonstrates that this perceptions has developed into a community attitude and a group habitus, echoed from one informant to the other with almost identical responses as if scripted, indicating a strong sense of community and community influence. Consequently, many informants declined the acquisition of techno-competencies, while others explicitly articulated that they view information technology to be "not for them." Their attitudes and behaviors are circulated and recycled in a way that disrupts the claims of the powerful and undisputable integration of ICT regardless of the context (Martinez, 1999; Leaning, 2009).

Several researchers argue that the sociocultural factors represent a risk to the diffusion of technologies in developing countries (Straub et al, 2001; Albrini, 2006). While I agree, to some extent, with this argument, I would also like to bring attention to the deterministic and technological imposition tone in it. I argue that the interaction between the technology and the culture has to be examined, understood, and applied from a cultural perspective. We have to look at the technology from the people and the culture's lenses. What do *they* need it for? I argue that technological theories need to be further decentralized and need to be grounded in the cultural values of the specific contexts and emerge from the developing countries not the other way around. In fact, I sensed firsthand the simple user's agency over the technology (Bakardjieva, 2005), appropriating what fits their needs and making informed, well thought out usage choices and strategies based on specific needs and cultural values.

Leaning (2009) argues that information is only given meaning by the social functions assigned to it. In fact, the Tunisian user maintained control over the technology and what aspects of it could be included in her/his daily life. When there is no motive for daily usage, information technology was rejected or reduced to one task as any other household device, even by the most skilled informants. Nevertheless, my argument towards emphasizing cultural empowerment is in no way an attempt to underestimate the technological power with its scholarly demonstrated educational, economic, and development benefits. Instead, I am attempting to lay the ground for a cultural contextualization of the technology in Tunisia and a cultural negotiation of the meaning and the need for technology.

From a theoretical point of view, I argue for the localization of the theoretical understanding of information technologies. In other words, we need a more culture based operationalization and conceptualization of the interaction between the technology and the social context. An overview of the findings of the study reveals a moment of contact between tradition and modernity; the conflict that takes place between an imposed development and the local values. The government, with its consecutive EU-inspired initiatives, continues to ignore the specific cultural needs and attitudes of the populations and the disparities in attitudes, behaviors, community dynamics that exist between them.

I have yet to find an indicator of a qualitative or ethnographic research conducted as part of the government's process to develop and implement its digital initiatives. This could be attributed to the Tunisian government's long tradition of importing modes of modernity[82]. In her study of the politics of family planning in Tunisia, Mills (2005) demonstrated the adoption of a

---

[82] In addition to the remnants of 75 years of French colonization, Bourguiba was deeply influenced by the French system and rebuilt the country after the independence based on French ideologies and notions of modernity (Mills, 2005; Charrad, 2001).

194

Western-made notion of modernity by the Tunisian government. She stated: "Official Tunisian discourses replicate the notion of a linear progression from a state of tradition to as state of modernity, leaving tradition in the past except when needed for tourism or proof of authenticity. Both ideologies of tradition and modernity are commoditized and disseminated broadly, but in different contexts."

The people's technological behavior produces a different trajectory through strategies of usage to localize the modernity represented by the Internet. In other words, Tunisia is going through a period of transition not only socially and politically, but also culturally. Tunisians' interaction with the technology is creating a moment of negotiation of the meaning of the technology, its place in their culture, and its effect on it. Jenkins (2006) argues that each new technology engenders a period of slow adjustment. In Tunisia, some have already accepted and adjusted to the technological changes, others are more resistant and are still gauging the technology to determine the possibility of accepting it within their cultural values, system, and structure. That is why I believe that a more appropriate discourse about this period is to view it as a transition, as the cultural agents exercising their agency over the technology and considering how much of it to allow in.

5.2 LIMITATIONS

While this research contributes an ethnography-based knowledge about the digital divide in Tunisia, Tunisians' interaction with technology and their relationship with the changing political sphere, it has some shortcomings that could be addressed in the future to provide a more comprehensive depiction of the issue at hand. My research was constrained by time limitations. Thus, when families brought up learning from other family members or offered to be taught by

195

other family members I immediately saw the importance of interviewing the brokers of techno-competencies to listen to their voices and explore their own articulations of the underlying reasons behind their desire to transfer their techno-competencies to other family members.

While my position as a native ethnographer facilitated the interviewing process and the analysis of the informants' discourses, it may was also be limiting in some instances. For example, during the interviews, I may have skipped follow up questions because I knew, or anticipated, the answers as I belong to the culture. However when analyzing the transcribed discourses, I identified instances where I could have explored in more depth the informants' discourses and attitude about the subject. Besides, although I am familiar with the Tunisian pattern of strong community relationships, I have been away for a long time and somehow, I started to underestimate the closeness of the relationships and the small home-feel that these communities have. While I argued at the beginning of the second chapter that the crowds of family members and neighbors were valuable to the observation of community interactions and attitudes, at times, they may have interfered with the interviewing process. Many times, I had to break serious and sometimes heated debates that took place because those around us did not agree with something the interviewee said.

A few times, I had to reassure family members that it was the interviewee's opinion I am interested in, not the degree of correctness of their statements. Another time, I silently and awkwardly watched as a couple engaged in a heated argument because the interviewee stated that he had an account in another SNS besides Facebook (which the spouse did not know about). Besides the humorous aspect of these situations, I was concerned about a potential effect of the spiral of silence and the interviewees' overthinking what they were saying in order not to aggravate the crowd. Another constraint is the location. I initially wanted to investigate a rural

area, however, the limitation of the time and the lack of access limited my study to suburban, popular neighborhoods, and one middle-upper class neighborhoods. Nevertheless, I believe my group of informants revealed patterns of behavior that are broadly relevant to the Tunisian culture and society as a whole.

Finally, what I found most constraining was the limitation of the written language to transfer different modes of communications such as body language, tone, and feelings. It is without doubt the most challenging aspect of the analysis process. It was difficult to transfer the strong emotions they voiced through the facial expressions and tone of voice (as when talking about people's conduct on Facebook, or when reporting about their voting). The translation was also a challenging and limiting element as many of the words the informants used were loaded with linguistic, cultural, and emotional meanings. In many instances, it was difficult to find English words that capture all the meanings of the Tunisian words they used. But as Spradley (1976) notes, this is the ethnographer's responsibility, to learn the often very local and particular ways that people talk about key issues, and to translate them both linguistically and conceptually for the reader. Thus, I only hope the words I chose do justice to their careful articulations and word choices and efficiently translate their voices to the outside world.

5.3 RECOMMENDATIONS FOR FUTURE RESEARCH

I believe this research can develop into a broader and bigger endeavor. During the interviews, I captured discourses that were not directly relevant to the ICT divide problem but that could lead to meaningful understanding of the social and cultural interactions. Follow up research should first investigate other geographic areas to identify cultural traits vs. small community traits. Accessing a rural area and replicating this study among other communities

197

would enrich the analysis and develop a broader picture of the Tunisian cultural interaction. I believe ethnographic research is an integral heuristic tool to the understanding of the culture and the technological practices of specific social contexts.

To map the digital divide in Tunisia, it is indispensable to examine different cities in different regions of the countries. Sousse is in no way representative of the whole country. It is one of the most economically advantaged Tunisian cities with a strong economy and more developed infrastructure. That is why, assuming that similar results may be encountered in the interior cities and the rural villages of Tunisia is highly misleading. Replicating this study in a variety of regions is beneficial not only to assess the digital divide within the country but also the social, economic, and literacy gaps as well.

I also believe that the voice of younger generations must be heard to examine their points of view in order to draft a more comprehensive picture of the techno-capital. In fact, the intersections between social capital, cultural capital, and techno-competencies within the Tunisian context are worth further investigation. It is a unique dynamic of rich resources with endless possibilities for educational opportunities, engagement, and citizenship. In chapter 3, I discuss how the informants mentioned again and again the difference in usage patterns between Arabs and the West. Unfortunately, at the time I did not explore this point further during the interview. However, for future research I think we need to account more for Tunisians' understanding and articulation of themselves as Tunisians and as Arabs vis-à-vis the Western Other. Indeed, most informants gave hints that issues of identity have informed their attitudes towards technology, which in turns informed the levels of usage. The informants made assertions about what the technologies means to them and how it affects their societies. For future research, the examination of the way they negotiate the intersection of identity and technological

198

development should lead to a more comprehensive overview of the cultural interactions with

technological development.

Appendix 1: Participants Information (All names were replaced with pseudonyms)

#	Pseudonym	Age	Residence	Occupation	Education
R1	Baraa	56	Kalaa	High school teacher, currently works as an administrative educator staff	College graduate
R2	Yahya	36	Zouhour	Lab chemist, clothing dye expert	College graduate
R3	Habib	74	Khezama	Owns multiple business that he rents out and runs a restaurant	None
R4	Ayat	32	Kalaa	Stay at home mom. Currently unemployed and has a college degree in performance arts	College graduate
R5	Hadir	59	Zouhour	Retired hotel housekeeping	High school (1 year of High school)
R6	Refka	54	zouhour	Stay at home mom	None
R7	Naima	52	Zouhour	Stay at home mom	High school graduate
R8	Molka	34	Kalaa	Stay at home mom	High school
R9	Kahina	57	Zouhour	Stay at home mom	Elementary school
R10	Ahlam	71	Khezama	Stay at home mom	None
R11	Dhiaa	53	Zouhour	Works at a bakery	Elementary school
R12	Adam	64	Zouhour	Retired kitchen-assistant	Middle school
R13	Yasmine	35	Zouhour	High school teacher	College graduate
R14	Nahla	62`	Zouhour	Retired nurse/hospital help	High school

R15	Aya	58	Kalaa	High school teacher	College graduate
R16	Samia	61	Kalaa	Stay at home mom	Elementary school
R17	Walid	31	Kalaa	Electricity technician	College graduate
R18	Nacira	30s	Zouhour	Travel agency staff	High school graduate
R19	Abir	36	Zouhour	Stay at home mom	College graduate/pharmacist assistant
R20	Amira	54	Kalaa	Stay at home mom	Formation Professionnelle - sewing
R21	Layla	72	Zouhour	Stay at home mom	None
R22	Wafa	60	Zouhour	Stay at home mom	Elementary school
R23	Basma	55	Kalaa	Stay at home mom	Elementary school
R24	Ilham	68	Kalaa	Stay at home mom	None
R25	Nourane	74	Khezama	Stay at home mom	Middle school
R26	Hajir	58	Kalaa	Stay at home mom	Elementary school
R27	Qassem	72	Khezama	Retired government employee	College graduate
R28	Yosra	76	Zouhour	Stay at home mom	None
R29	Mohamed	82	Khezama	Retired judge	Post college graduate (Bachelor's degree from Zeituna University and a post graduate degree from Law school)
R30	Monji	61	Kalaa	Retired high school staff	High school

R31	Chokri	63	Zouhour	Retired truck driver	Middle school
R32	Farook	30	Zouhour	Taxi driver	High school
R33	Hamed	55	Zouhour	Electrician	High school

References

Abbasi, H. (2005). La prise en compte de l'informatique en Tunisie: études de cas dans deux lycées. *Association API*. Retrieved on 3/3/2016 from: http://www.epi.asso.fr/revue/articles/a0506b.htm

Acilar, A. (2011). Exploring the aspects of digital divide in a developing country. *Issues in Informing Science and Information Technology*. 8, 231-244.

Aday, S., Farrell, H., Lynch, M., and Sides, J. (2010). Advancing new media research. *United States Institute of Peace*. Retrieved from: http://www.usip.org/files/resources/SR%20250%20-%20Advancing%20New%20Media%20Research.pdf

Albirini, A. (2006). Cultural perceptions: The missing element in the implementation of ICT in developing countries. *International Journal of Education and Development using ICT* [Online], 2(1). Retrieved on January 6th, 2016 from http://ijedict.dec.uwi.edu/viewarticle.php?id=146.

Alexander B. 2008. Web 2.0 and emergent multiliteracies. *Theory into Practice*, 47, 150-160.

Allagui, I., & Kuebler, J. (2011). The arab spring & the role of icts| introduction. *International Journal of Communication*, *5*, 8.

AlSalem, F. (2015). *Digital media and women's political participation in kuwait.* Doctoral Dissertation, Indiana University. Retrieved from: http://ezproxy.lib.utexas.edu/login?url=http://search.proquest.com/docview/1697861623?accountid=7118

Aman, M.M. and Jayroe, T.J. (2013). ICT, social media, and the Arab transition to democracy: From venting to acting. *Digest of Middle East Studies*, 22(2), 317-347.

Anduiza, E., Gallego, A., and Cantijoch, M. (2010). Online political participation in Spain: The impact of traditional and Internet resources. *Journal of Information Technology & Politics*, 7(4), 356-368.

Angrist, M. P. (2013). Understanding the success of mass civic protest in Tunisia. *The Middle East Journal*, 67(4), 547-564.

Antonio, A. and Tuffley, D. (2014). The gender digital divide in developing countries. *Future Internet*, 6(4), 673-687.

Askool, S. S. (2013). The Use of Social Media in Arab Countries: A Case of Saudi Arabia. In Web Information Systems and Technologies (pp. 201-219). Springer Berlin Heidelberg.

Ayeb, H. (2011). Social and political geography of the Tunisian revolution: The alfa grass revolution. *Review of African Political Economy*, 38(129), 467-479.

Azouzi, D. (2009). The adoption of electronic banking in Tunisia: An exploratory study. *Journal of Internet Banking and Commerce*, *14*(3), 1-11.

Bagchi, K.K., Udo, G.J., Kirs, P.J., and Choden, K. (2015). Internet use and human values: Analyses of developing and developed countries. *Countries in Human Behavior*, 50, 76-90.

Bakardjieva, M. (2005). *Internet society: the Internet in everyday life*. Sage Publications.

Barakat, Halim (1985). "The Arab Family and the Challenge of Social transformation," pp. 27-48 in E. W. Fernea, ed., Women and the Family in the Middle East: New Voices of Change, Austin, TX, University of Texas Press.

Basch, L., Schiller, N. G., & Blanc, C. S. (1994). Nations Unbound: Transnational Projects. *Postcolonial Predicaments, and Deterritorialized Nation-states (Gordon and Breach, Amsterdam)*.

Berkman, L. F., & Glass, T. (2000). Social integration, social networks, social support, and health. *Social epidemiology*, *1*, 137-173

Berkman, L.F. and Glass, T. (2000). Social integration, social networks, social support, and health. In Berkman, L. F. and Kawachi, I. (Eds.). Social Epidemiology. New York: Oxford University Press, 137-173.

Ben Hassine, O.K. (2014). Personal expansion versus traditional gender stereotypes: Tunisian university women. In I. Buskens and A. Webb (Eds.) Women and ICT in Africa and the Middle East: Changing selves, changing societies. Zed Books, 2014.

Benstead, L., Lust, E., and Malouche, D. (2012). Tunisians frustrated but engaged. Retrieved from: http://foreignpolicy.com/2012/12/11/tunisians-frustrated-but-engaged/

Boeder, P. (2005). Habermas' heritage: The future of the public sphere in the network society. First Monday, 10(9). Retrieved from http://firstmonday.org/ojs/index.php/fm/article/view/1280/1200

Bouhafa, F. (2011). Defining the Tunisian revolution. Counterpunch, Feb 12, 2011. Retrieved from http://www.counterpunch.org/2011/02/02/defining-the-tunisian-revolution/

Bourdieu, P. 1984. Distinction: A Social Critique of the Judgment of Taste. Cambridge, MA: Harvard University Press

Bourdieu, P. (1986). The forms of capital. In J. Richardson (Ed.) Handbook of Theory and Research for the Sociology of Education. New York, Greenwood, 241-258.

Bowie, N. E. (2015). Privacy and the Internet. The International Encyclopedia of Ethics, 1-5.

Brahimi, Babak. 2015. Rethinking digital technologies in the Middle East. Int. J. Middle East Stud. 47

Barassi, V., and Treré, E. (2012). Does Web 3.0 come after Web 2.0? Deconstructing theoretical assumptions through practice. *New Media & Society, 14*, 1269-1285.

Breuer, A., & Groshek, J. (2014). Online media and offline empowerment in post-rebellion Tunisia: An analysis of Internet use during democratic transition. *Journal of Information Technology & Politics*, *11*(1), 25-44.

Brown, R. V., & Spilling, M. (2008). *Tunisia* (Vol. 15). Marshall Cavendish.

Buckingham, D. (2009). *The future of media literacy in the digital age: some challenges for policy and practice*, 13-24.

Carrington, V. (2007). Social inclusion and digital literacies. In Bearne, E. and Marsh, J. (Eds.) Literacy and Social Inclusion, Staffordshire: Trentham Books Ltd, 103-114.

Castells, M. (1983). *The city and the grassroots: a cross-cultural theory of urban social movements* (No. 7). Univ of California Press.

Castells, M. (2015). *Networks of outrage and hope: Social movements in the Internet age*. John Wiley & Sons.

Charrad, M. M.. (2011). Central and local patrimonialism: State-building in kin-based societies. *The Annals of the American Academy of Political and Social Science*, *636*, 49–68

Charrad, M., 2001. States and women's rights: the making of postcolonial Tunisia, Algeria, and Morocco. Los Angeles, CA: University of California Press.

Chen, W. (2013). The implications of social capital for the digital divides in America. The Information Society, 29(1), 13-25.

Chen, Y., and Persson, A. (2002). Internet use among young and older adults: relation to psychological well-being. *Educational Gerontology*, 28, 731-744.

Chen, W., & Wellman, B. (2004). The global digital divide–within and between countries. *IT & society*, *1*(7), 39-45.

Christiansen, C. C. (2004). New media consumption among immigrants in Europe: The relevance of diaspora. Ethnicities, 4(2), 185-207.

Chiesa, A. (2013). A new era? Civil society and the Tunisian revolution. Lund University, Department of Political Science.

Clayton J. and Macdonald, S. J. (2013). The limits of technology: Social class, occupation and digital inclusion in the city of Sunderland, England. *Information, Communication & Society*, 16(6), 945-966

Coleman, James S. (1988), 'Social capital in the creation of human capital. American Journal of Sociology, 94, Supplement: Organizations and Institutions: Sociological and Economic Approaches to the Analysis of Social Structure, 95-S120.

Coleman, S. and J.G. Blumler (2009) The Internet and Democratic Citizenship: Theory, Practice and Policy. New York: Cambridge University Press.

Compaine, B. M. (2001). *The digital divide: Facing a crisis or creating a myth?*. Mit Press.

Correa, T. (2012). *Bottom-up technology transmission within families: how children influence their parents in the adoption and use of digital media*. Dissertation, The University of Texas at Austin.

Creswell, J. W. (1998). Five qualitative traditions of inquiry. *Qualitative inquiry and research design*, 47-72.

Culver, S. H., & Jacobson, T. (2012). Media Literacy and Its Use as a Method to Encourage Civic Engagement/Alfabetización mediática como método para fomentar la participación cívica. *Comunicar*, *20*(39), 74.

Cullen, R. (2001). Addressing the digital divide. *Online information review*,*25*(5), 311-320.

Dahlberg, L. (2001). The Internet and democratic discourse: Exploring the prospects of online deliberative forums extending the public sphere. *Information, Communication & Society, 4*(4), 615-633.

Day, S. (2013). Self-disclosure on Facebook: How much do we really reveal?. Journal of Applied Computing and Information Technology, 17(1)

Delli Carpini, M. X. (2000). Gen.com: Youth, civic engagement, and the new information environment. *Political Communication, 17*, 341-349.

Artaud de la Ferriere, A., and Vallina-Rodriguez, N. (2014). The scissors and the magnifying glass: Internet governance in the transnational Tunisian context. Journal of North African Studies, (19(5), 639-655.

Dewan, S. and Riggins, F. J. (2005). The digital divide: Current and future research directions. Journal of the Association for Information Systems. 6(12), 298-337.

DiMaggio, P. (1982). Cultural capital and school success: the impact of status culture participation on the grades of U.S. high school students. American Sociological Review, 47(2), 189-201.

DiMaggio, P., Hargittai, E., Neuman, W. R., and Robinson, J. P. (2001). Social implications of the Internet. Annual Review of Sociology, 27, 307-336

DiMaggio, P. and Hargittai, E. (2001). From the 'digital divide' to 'digital inequality': Studying Internet use as penetration increases. Princeton: Center for Arts and Cultural Policy STudies, Woodrow Wilson School, Princeton University, 4(1), 4-2.

Dumais, S.A. (2002). Cultural capital, gender, and school success: The role of habitus. Sociology of Education, 75(1), 44-68.

Dupuis, P. (201). ICT and the democratization process in North Africa: Tool for freedom or instrument of oppression? A case study of Tunisia during the Arab Spring and onwards. Lund University, Department of Political Science.

Dutton, W.H., Shepherd, A. and di Gennaro, C. (2007) 'Digital Divides and Choices Reconfiguring Access: National and Cross-National Patterns of Internet Diffusion and Use'. In B.Anderson, M.Brynin, J.Gershuny and Y.Raban (Eds) Information and Communications Technologies in Society (Routledge: London), pp. 31–45.

El Gody, A. (2006). ICT and gender inequality in the Middle East. In Encyclopedia of Gender and Information Technology. Trauth, E.M. (Ed.). PA: Idea Group Reference. 772-779.

Erickson, J., and Johnson, G. M. (2012). Internet use and psychological wellness during late adulthood. Canadian Journal on Aging, 30, 197-209.

Fairlie, R. W., & Robinson, J. (2013). *Experimental evidence on the effects of home computers on academic achievement among schoolchildren* (No. w19060). National Bureau of Economic Research.

Faris, D. M. (2013). Digitally divided we stand: The contribution of digital media to the Arab Spring. In Ragnedda, M. and Muschert, G. W. (Eds.), The Digital Divide: The Internet and Social Inequality in International Perspective. Routledge Advances in Sociology.

Farmanfarmaian, R. (2014). Media in political transition, focus on Tunisia. The Journal of North African Studies, 19(5), 609-614.

Fraile, M. (2011) 'Widening or Reducing the Knowledge Gap? Testing the Media Effects on Political Knowledge in Spain (2004–2006)', *Harvard International Journal of Press/Politics* 16(2): 163–84

Foley A. and Ferri B.A. (2012). Technology for people, not disabilities: ensuring access and inclusion. *Journal of Research in Special Educational Needs*, 12(4), 192-200.

Gibson, R. K. and Cantijoch, M. (2013). Conceptualizing and measuring participation in the age of the Internet: Is online political engagement really different to offline? *The Journal of Politics*, 75(3), 701-716.

Gibson, R. K. and McAllister, I. (2015). New media, elections and political knowledge gap in Australia. Journal of Sociology, 51(2), 337-353.

Gil de Zúñiga, H., Jung, N., & Valenzuela, S. (2012). Social media use for news and individuals' social capital, civic engagement and political participation. *Journal of Computer-Mediated Communication*, *17*(3), 319-336.

Giulia, D. (2014). Tunisian women's activism after the January 14 revolution: Looking within and towards the other side of the mediterranean. *Journal of International Women's Studies*, 15(2), 16-32.

Glick-Schiller,N (2003). *The centrality of ethnography in the study of transnational migration: Seeing the wetlands instead of the swamp*. In Foner, N. (ed.), American Arrivals, Santa Fe, NM: School of American Research, pp, 99-128

Global Information Report, 2009- 2010. Retrieved from: http://www.ifap.ru/library/book466.pdf

Guarnizo, L. E. (1997). The emergence of a transnational social formation and the mirage of return migration among Dominican transmigrants. *Identities Global Studies in Culture and Power*, *4*(2), 281-322.

Gustafsson, N. (2012). The subtle nature of Facebook politics: Swedish social network site users and political participation. *New Media & Society, 14*, 1111-1127.

Gutiérrez, A., and Tyner, K. (2012). Media education, media literacy, and digital competence. *Communicar, Scientific Journal of Media Education, 38*, 31-39.

Haddon, L. (2006). The contribution of domestication research to in-home computing and media consumption. *The Information Society*, 22, 195-203.

Harb, Z. (2011). Arab revolutions and the social media effect. Media and Culture Journal, 14(2). Retrieved from: http://journal.media-culture.org.au/index.php/mcjournal/article/viewArticle/364Two

Hasnaoui, L. and Belhadj, B. (2015). Fuzzy multidimensional inequality measurement. Policies to reduce inequality in Tunisia. *EuroEconomica*, 2(34).

Haugbølle, R. H., & Cavatorta, F. (2012). 'Vive la grande famille des médias tunisiens' Media reform, authoritarian resilience and societal responses in Tunisia. *The Journal of North African Studies*, *17*(1), 97-112.

Helsper, Ellen (2008) Digital inclusion: an analysis of social disadvantage and the information society. Department for Communities and Local Government, London, UK.

Heo, J., Chun, s., Lee, S., Lee, K.H., and Kim, J. (2015). Internet use and well-being in older adults. *Cyberpsychology, Behavior, and Social Networking*, 18(5), 267-272.

Hill, C., Loch, K., Straub, D. & El-Sheshai, K. (1998). "A qualitative assessment of Arab culture and information technology transfer", *Journal of Global Information Management*, 6(3), 29-38.

Ivey, K. A. (2014). Social media and contentious politics: Tunisia 2010-2013. Master's thesis, The George Washington University (2014). Retrieved on March, 04, 2016 from: http://search.proquest.com/docview/1679276866?pq-origsite=summon&accountid=7118

James, J. (2012). Which developing countries have done the most to close the digital divide? Telematics and Information, 29, 2-10

James, J. (2012). From the relative to the absolute digital divide in developing countries. *Technological Forecasting & Social Change*, 76, 1124-1129.

Jelassi, T. A. W. F. I. K. (2009). ICT in Tunisia: A Strategic Lever for Building a Knowledge-based Economy. *The Global Information Technology Report*,*2010*, 153-164.

Jenkins, H. (2006). Eight Traits of the New Media Landscape. Retrieved from http://henryjenkins.org/2006/11/eight_traits_of_the_new_media.html

Jenkins, H., and Thorhurn, D. (2003). The digital revolution, the informed citizen, and the culture of democracy. In Jenkins, H, and Thorburn, D. (Eds) *Democracy and New Media*. Cambridge, MA: MIT Press.

Jenkins, H., R. Purushotma, K. Clinton, M. Weigel, and A. Robinson. (2006). *Confronting the Challenges of Participatory Culture: Media Education for the 21st Century*. Chicago, IL: MacArthur Foundation. Retrieved, February 24th from https://mitpress.mit.edu/sites/default/files/titles/free_download/9780262513623_Confronting_the_Challenges.pdf

Kaba, A. and Said, R. (2013). Bridging the digital divide through ICT: A comparative study of countries of the Gulf Cooperation Council, ASEAN and other Arab countries. Information Development, 1-8.

Katz, E., and Lazarsfeld, P.F. (1955). *Personal influence: The part played by people in the flow of mass communication*. Glencoe: Free Press.

Khonder, H. H. (2011). Role of the new media in the Arab Spring. *Globalizations, 8*(5), 675-679.

Kraidy, M. M. (1999). The global, the local, and the hybrid: A native ethnography of glocalization. *Critical studies in media communication*, *16*(4), 456-476.

Kuebler, J. (2011). Overcoming the digital divide: The Internet and political mobilization in Egypt and Tunisia. CyberOrient, 5(1). Retrieved from http://www.cyberorient.net/article.do?articleId=6212

Lampe, C., Ellison, N., & Steinfield, C. (2006). A Face (book) in the crowd: Social searching vs. social browsing. In *Proceedings of the 2006 20th anniversary conference on Computer supported cooperative work*, 167-170.

Landorf, B. (2014). Female reverberations Online: Analysis of Tunisian, Egyptian, and Moroccan female cyberactivism during the Arab Spring. International Studies Honors Projects. Paper 20.

Leaning, M. (2009). Theories and models of media literacy. *Issues in information and media literacy: criticism, history and policy*, 1-18.

Lefèvre, R. (2015) Tunisia: a fragile political transition, The Journal of North African Studies, 20:2, 307-311

Lievrouw, L. A. and Livingstone, S. 2002. *The Handbook of New Media: Social Shaping and Consequences of ICTs.* Sage, London, UK.

Lindlof, T. R., & Taylor, B. C. (2010). *Qualitative communication research methods*. Sage.

Livingstone, Sonia (2004) What is media literacy? Intermedia, 32 (3). pp. 18-20.

Livingstone, S., & Bovill, M. (2001). Families and the Internet: An observational study of children and young people's Internet use. London: British Telecommunications

Livingstone, S., & Bober, M., (2006). Regulating the Internet at home: contrasting the perspectives of children and parents. In: D. Buckingham & R. Willett (eds.), *Digital generations: Children, young people, and new media* (pp. 93–113). Mahwah, N.J.: Lawrence Erlbaum Associates..

Loch, K., Straub, D., & Kamel, S. (2003). Diffusing the Internet in the Arab world: The role of social norms and technological culturation. IEEE Transactions on Engineering Management, 5(1), 45–63.

Lu, C. and Straubhaar, J. D. (2014). The influence of techno-capital and techno-disposition on the college-going processes of Latina/o college students in Central Texas. Learning Media and Technology, 39(2), 184-198.

Macharia, J. 2014. Internet access is no longer a luxury. Retrieved from http://www.un.org/africarenewal/magazine/april-2014/internet-access-no-longer-luxury

Malouche, D., Benstead, L. Lust, E., Soltane, G., and Wichmann, J. (2013). Who voted and why? An analysis of "New" and "old" voters in Tunisia and Egypt. Paper presented in CSID Conference, Democratic Transitions in the Arab World, March 29, 2013.

Martin, A. P. (2015). Do Tunisian secular civil society organizations demonstrate a process of democratic learning. *The Journal of North African Studies*, 20(5), 797-812.

Mehra, B. (2004). The internet for empowerment of minority and marginalized users. *New Media and Society*, 6(6), 781-802.

Mehra B., Merkel, C. and Bishop, A.P. (2004). The Internet for empowerment of minority and marginalized users. *New Media and Society*, 6(6), 781-802

Merone, F. (2015) Enduring class struggle in Tunisia: The fight for identity beyond political Islam. *British Journal of Middle Eastern Studies*, 42(1), 74-87.

Merrin, W. (2009). Media Studies 2.0: Upgrading and open-sourcing the discipling. *Interactions, Studies in Communication & Culture*, 1(1), 17-38.

Miller, D., & Slater, D. (2001). The Internet: an ethnographic approach.

Mills, K. (2005).Reproducing the nation: The politics of family planning in Tunisia. Dissertation, Department of Anthropology, The University of Chicago.

Moeller, S. (2009). 5. Nurturing freedom of expression through teaching global media literacy. *Comunicar*, *16*(32), S83-S83.

Murphy, P.D., & Kraidy, M.M. (2003). Towards an ethnographic approach to global media studies. In Murphy P. & Kraidy, M (eds). *Global media studies: ethnographic perspectives*.

Najjar, S. (2011). Les pratiques sociales de l'Internet et les transformations des identites et des liens sociaux au Maghreb: Etude de communautes diasporiques tunisiennes. Mediterranee (online), 116, 49-57.

Nalbantoglu, H.C. 2014. Digital activism: Social movements in the digital age. Spalding University, College of Education.

National ICT Regulatory frameworks Report, Tunisia. 2014. Retrieved from www.clusmed.eu/?wpdmact=process&did=38

Negroponte, Nicholas. 1995. *Being Digital.* New York: Alfred A. Knopf.

Norris, P. (2001). Digital divide: Civic engagement, information poverty, and the Internet. Cambridge: Cambridge University Press.

Oliver, P.E., and Myers, D.J. (1998). Diffusion models of cycles of protest as a theory of social movements.

O'Reilly, T. (2005). What is web 2.0.: Design patterns and business models for the next generation of software. Retrieved March 1, 2009.

Ouerghi, M. S. (2014, January). ICT strategy in Tunisia: The case of e-Tunisia and Tunisan2. Open Movement. In *Computer Applications and Information Systems (WCCAIS), 2014 World Congress on* (pp. 1-8). IEEE.

Owusu, T. Y. (2003). Transnationalism among African immigrants in North America: The case of Ghanians in Canada. Journal of International Migration and Integration, 4(3), 395-413.

Palvia, S.C.J. and Sharma, S.S. (2007). E-government and e-governance: definitions/domain framework and status around the world. In Agarwal, A. and Venkata Ramana, V. (Eds.), Proceedings of the Fifth International Conference on e-Governance (ICEG), 2007, p. 1-12).

 Gregor Petrič (2006) Conceptualizing and Measuring the Social Uses of the Internet: The Case of Personal Web Sites, The Information Society, 22:5, 291-301

Portes, A. and Landolt, P. (1996). The downside of social capital. The American Prospect, 26, 18-21.

Portes, A. (1998). Social capital: its origins and applications in modern sociology. The Annual Review of Sociology, 24, 1-24.

Prensky, M. (2001). Digital natives, digital immigrants part 1. *On the horizon*,*9*(5), 1-6.

Putnam, Robert D. (2001), Bowling alone: the collapse and revival of American community, New York: Simon & Schuster.

Qureshi, S. (2012). As the global digital divide narrows, who is being left behind? Information Technology for Development, 18(4), 277-280.

Qvortrup, J. (1987). Introduction. *International Journal of Sociology*, *17*(3), 3-37.

Ragnedda, M., & Muschert, G. W. (2013). *The digital divide: The Internet and social inequality in international perspective* (Vol. 73). Routledge.

Resnik, P. (2001). Beyond bowling together: Sociotechnical capital. In J. Carroll (Ed.), *HCI in the new millennium* (pp. 247-272). Boston, MA: Addison-Wesley.

Rideout and Katz. (2016). *Opportunity for all? Technology and learning in lower-income families*. The Joan Ganz Cooney Center at Sesame Workshop. Retrieved from: http://www.joanganzcooneycenter.org/wp-content/uploads/2016/01/jgcc_opportunityforall.pdf

Rogers E. M. (1995). Diffusion of innovations. The Free Press: *New York*.

Rojas, V., Straubhaar, J., Roychowdhury, D. and Okur, O. Communities, cultural capital and the digital divide. In Bucy, E. and Newhagen, J. (Eds.), *Media access: Social and psychological dimensions of new technology use*, LEA, London, 2004, 107-130.

Rojas, V., Roychowdhury, D., Okur, O., Straubhaar, J., & Estrada-Ortiz, Y. (2001). Beyond access: Cultural capital and the roots of the digital divide.*University of Texas, Austin*.

Roy, O. (2012). The transformation of the Arab world. *Journal of Democracy*,*23*(3), 5-18.

Sackmann, R. and Winkler, O. (2013). Technology generations revisited: the Internet generation. Gerontechnology, 11(4), 493-503.

Selwyn, N. (2014). The information aged: a qualitative study of older adults' use of information and communications technology. *Journal of Aging Studies*, 18(4), 369-384.

Selwyn, N. (2004). Exploring the role of children in adults' adoption and use of computers. Information, Technology, and People, 17(1), 53-70.

Sinha, S. (2011). Women's rights: Tunisian women in the workplace. Journal of International Women's Studies, 12(3), 185-200.

Skoric, M. M., Ying, D. and Ng, Y. (2009). Bowling alone, not alone: online social capital and political participation in Singapore. Journal of Computer-Mediated Communication, 14(2), 414-433.

Sobh, R. and Belk, R. W. (2011) Privacy and Gendered Spaces in Arab Gulf Homes. *Home Cultures*, 8:3, 317-340

Stanley, L. D. (2003) Beyond access: Psychosocial barriers to computer literacy special issue: ICTs and community networking, The Information Society, 19(5), 407-416

Straub, D. W., Loch, W., Aristo, R., Karahanna, E., & Srite, M. (2002). Toward a theory-based measurement of culture. Journal of Global Information Management, 10(1), 13–23

Parayil, G. (2005) The digital divide and increasing returns: Contradictions of informational capitalism, Information Society, Vol. 21, no. 1, pp. 41-51

Poell, T. and Darmoni, K. (2012) Twitter as a multilingual space: The articulation of the Tunisian revolution through #sidibouzid. *European Journal of Media Studies*, 1(1), 14-34

Prior, M. (2007) *Post-Broadcast Democracy*. Cambridge: Cambridge University Press.

Silverstone, R. (1994). *Television and everyday life*. London: Routledge.

Skoric, M. M., Ying, D., & Ng, Y. (2009). Bowling online, not alone: Online social capital and political participation in Singapore. *Journal of Computer-Mediated Communication*, *14*(2), 414-433.

Stern, M. J., & Dillman, D. A. (2006). Community participation, social ties, and use of the Internet. *City & Community 5*(4), 409-424.

Straub, D. W., Loch, K. D., & Hill, C. E. (2002). Transfer of information technology to the Arab world: a test of cultural influence modeling. *Information Technology Management in Developing Countries*, 92-151.

Straubhaar, J., Spence, J., Tufekci, Z., Lentz, R. G. (2012). *Inequity in the Technopolis: Race, class, gender, and the digital divide in Austin*. Austin, TX: University of Texas Press.

Tchaïcha, J, D. and Arfaoui, K. (2012). Tunisian women in the twenty-first century: past achievements and present uncertainties in the wake of the Jasmine Revolution. *The Journal of North African Studies*, 17(2), 215-238.

Tunisia: Understanding successful socioeconomic development: A joint World Bank-Islamic Development Bank Evaluation of Assistance. (2005).

Tyner, K. (2009). *Audiences, intertextuality and new media literacy*. IJML, Boston: MIT.1 (2), 25-31.

Van Deursen, A. J. and Van Dijk, J. AGM. (2014). The digital divide shifts to differences in usage. (16(3), 507-526.

Van Dijk, J., & Hacker, K. (2003). The digital divide as a complex and dynamic phenomenon. *The information society*, *19*(4), 315-326.

Van Dijk, (2005). *The Deepening Divide, Inequality in the Information Society*. Thousand Oaks: Sage.

Van Dijk, J. A. G. M. (2006). Digital divide research, achievements and shortcomings. *Poetics*, 34(4-5), 221-235.

Vehovar, v., Sicherl, P., Hüsing, T, and Dolnicar, V. (2006). Methodological challenges of digital divide measurements. The Information Society: An International Journal, 22(5), 279-290.

Viard, V. B., & Economides, N. (2014). The Effect of Content on Global Internet Adoption and the Global "Digital Divide". *Management Science*,*61*(3), 665-687.

Warschauer, M. (2003). *Technology and social inclusion: Rethinking the digital divide*. Cmbridge, MA: MIT Press.

Warschauer, M. (2012). Language and the digital divide. The Encyclopedia of Applied Linguistics.

Warschauer, M. (2002). Reconceptualizing the digital divide. Retrieved on Feb, 17, 2016, from http://firstmonday.org/ojs/index.php/fm/article/view/967/888

Warschauer, M., G. R. El Said and A. Zohry. (2002). Language Choice Online: Globalization and Identity in Egypt. Journal of Computer-Mediated Communication, 7(4).

Wolf, A. and Lefèvre, R. (2012). Revolution under threat: the challenges of the 'Tunisian Model.' *The Journal of North African Studies*, 17(3), 559-563.

World Bank; Islamic Development Bank. (2005). Tunisia: Understanding Successful Socioeconomic Development, A Joint World Bank–Islamic Development Bank Evaluation of Assistance. Washington, DC: World Bank. © World Bank.

Yaseen, S. G. and Al Omoush, S. (2012). Toward developing a model of Facebook adoption among Arab people. *Humanities and Social Sciences Review*. 1(2), 69-76.

Zakaria, N., Stanton, J. M., & Sarkar-Barney, S. T. (2003). Designing and implementing culturally-sensitive IT applications: The interaction of culture values and privacy issues in the Middle East. *Information Technology & People*, *16*(1), 49-75.

Zayani, M. (2015). *Networked Publics and Digital Contention: The Politics of Everyday Life in Tunisia*. Oxford University Press.

Zhang, W., Johnson, T. J., Seltzer, T., and Bichard, S. (2010). The revolution will be networked: the influence of social networking sites on political attitudes and behavior. *Social Science Computer Review, 28*(75), 75-92.