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Behind the Screen: the Syrian Virtual Resistance

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Abstract:
Six years have gone by since the political upheaval that swept through many Middle East and North African (MENA) countries begun. Syria was caught in the grip of this revolutionary moment, one that drove the country from a peaceful popular mobilisation to a deadly fratricide civil war with no apparent way out. This paper provides an alternative approach to the study of the root causes of the Syrian uprising by examining the impact that the development of new media had in reconstructing forms of collective action and social mobilisation in pre-revolutionary Syria. By providing evidence of a number of significant initiatives, campaigns and acts of contentious politics that occurred between 2000 and 2011, this paper shows how, prior to 2011, scholarly work on Syria has not given sufficient theoretical and empirical consideration to the development of expressions of dissent and resilience of its cyberspace and to the informal and hybrid civic engagement they produced.

Keywords:
social media, uprising, Arab Spring, Internet, Middle East, Syria

Introduction
Six years have gone by since the political upheaval that swept through many Middle East and North African (hereinafter MENA) countries begun. Syria was caught in the grip of this revolutionary moment, one that drove the country from a peaceful popular mobilisation to a deadly fratricide civil war with no apparent way out. Scholars advanced a number of explanations for this event, which included the demographic profile of the younger generations and the economic recession they experienced, rising wealth concentration, high unemployment, the use of techniques from successful campaigns and the coordination of dissent through traditional/offline and new/online forms of contention. The employment of the new media has often been framed as a deus ex-machina of the uprising, a Silicon Valley product that came to liberate citizens from the grip of authoritarianism. Nevertheless,
did Syrians truly acquire the ability to use the new media technologies at the eve of the uprising or did they slowly mastered their ability through a period of maturation and gestation? How does the epistemic community explain the extensive reliance that Syrian protestors made of the new media at the time of the uprising, when the country was depicted as falling behind international and regional standards of media development? Is the error in the statistics or is it in the bigger picture? Could one argue that Syria watchers have miscalculated the contingent and nonlinear impact of digital media and technologies on Syria's civil society from an empirical as well as theoretical point of view?

For the new media to act as “liberating tools” (liberating in the sense of opposing authoritarian and non-democratic regimes) is it necessary to have the whole population connected online? Or could it be the exact opposite? If one looks at the West where the new technologies have been used for a longer time and where the majority of population has access to them, one would expect citizens to be politically and civically more aware and participative. Yet, this is not always the case. On the contrary, the amount of (dis)information and people's unregulated access to the web is actually producing the exact opposite: distraction and fragmentation. According to Howard and Hussein, for the media to become powerful tools capable of generating political or social changes one does not need to have the whole population tuned online but only a few brokers who act as intermediaries between the strong, yet offline social networks and the wider digital public (Howard and Hussein 2013:12). Is it possible to argue that academic interest has been oriented towards the role that the new media played at the time of the Arab uprising, while insufficient interest, instead has been directed to the role they played in the years predating it, the period one might define as constitutive and of maturation? On this line, though the Syrian uprising started in 2011, is it possible to argue that digital media played an even more important role in the years that led to the uprising, reconstructing forms of collective action and social mobilisation that had not existed before in a closed regime like Syria?

What this study does is to explain the outbreak of the Syrian uprising and the role played by digital media by focusing on an aspect that academic work has largely disregarded, the way new media became the major articulators and developers of a change in the political and social fabric of
Syria prior to 2011. Up to the burst of Syria’s chapter of the Arab Spring, most of the studies on Syria had focused their attention on the strategies and techniques adopted by president Bashar al-Assad to tap new resources, diversify legitimacy bases and redefine state-societies relation, what Heydemann defined “authoritarian upgrading,” Perthes called “modernised authoritarianism” and Hinnebusch described as “post-populist” (Heydemann 2007; Perthes 2004; Hinnebusch 2006). Only a niche of Syria’s scholars had examined forms of subversive practices in pre-uprising Syria that – with hindsight – could anticipate the weaknesses of the authoritarian upgrading argument. Within this group, the media had been the focus of attention of an even smaller group of scholars, like Wedeen, Salamandra and George who had examined various expressions of political dissent, whether in the press or TV series, but that were interpreted more as safety valves rather than acts of political resistance with long-term consequences (Wedeen 1999; Salamandra 2008; George 2003). On the contrary, this paper aims at contributing to the growing literature that is analyses the root causes of Syria’s uprising by expanding our understanding on the linkages between pre-war new media and wartime dissidence. In this sense, the Syrian uprising represents the eventual element of analysis, and the concluding state of the narrative, towards which this study is constantly projected. What emerges is that, if the Syrian uprising is said to have formally begun in 2011, its formation is thought to date back to the start of Bashar al-Assad’s presidency in 2000. The underlying argument of this paper is that during the decade that led to the uprising in Syria, a (silent) form of mobilisation took place as an effect of opportunity structures (economic, institutional and social context), conditioned by people’s access to new media. If it is true that the Syrian government under Bashar al-Assad was able to modernise authoritarianism or to upgrade authoritarianism to the changing times, this paper holds that these same changes contributed to making the Syrian regime more vulnerable and exposed to the challenge of popular elements of dissent. This scenario determined the creation of loopholes or power vacuums that allowed alternative forces to emerge through the new spaces offered by the digital media. The Syrian regime slowly lost control of two elements on which its stability was based: control of the flow of information and surveillance of people’s interaction. The emergence of new media symbolised a turning point for Syria, as they directed the already existing motives for a popular mobilisation and offered a space to express political, cultural and
social protest. The outbreak of the revolt in 2011 did not symbolise the start of Syria’s revolution but the shift of an existing and unstructured growing social mobilisation from virtual to tangible street mobilisation.

This article elaborates a conceptual model aimed at examining the role that digital media had in the formation of the Syrian uprising. By locating the seeds of Syria’s uprising prior to 2011, this article encourages to rethink the concept of social movement and activism within the context of Syria and as an effect of the role that new media can play in closed regimes like the Syrian one. Limiting this study to a theoretical analysis supported by a number of significant empirical examples, this article is structured in two parts. The first part provides an overview of the context (opportunity structures) in which Syria’s online mobilisation is said to have emerged. The second part instead indicates how the new media became the mobilising structures of Syria’s uprising. The Internet, in particular, became a tool that channelled the mistrust towards the regime and the hopes for reforms, as well a space, a virtual platform that facilitated manifestations of dissent and protests. As such, the new media did not simply provide the tool to spread discontent and mobilise civic engagement, they became the space for contention themselves, where new collective subjectivities emerged.

The Virtual, and Quite, (Non)Movement of pre-Uprising Syria

The conceptual framework that this study elaborates stands on two disciplines: media studies and social movement studies. The two disciplines have for long developed along two different tracks and only recently colluded their research focus. The advent of the new media has in fact had such an influence on the formation of modes of communication, collective identity, public sphere and grassroots mobilisation that media and social movement scholars find their research interests intersecting. In reality, the discipline of social movement studies has always taken into account the role of the media, even the most traditional ones, like underground newspapers, outlawed radio, tapes and other old-fashioned information media. However their role has never occupied a central part of study, as in practice the old media supported the development of a group’s mobilisation, but have always been considered as constitutive elements with no agency, non-leading factors. Yet all major events in history have been shaped by media technology since the invention of the printing press, from the American Revolution and the
civil rights movement in the American South, to the struggles for independence from colonial rule and the peace movements. However today, social movements are influenced by the role of the media as never before. Digital media have revolutionised the process of formation and mobilisation of a social movement, which does not require people to be physically present in the same place, if for “place” we refer to an environment physically existing. The Internet may be thought as a “virtual place” or better a “space” that allows physically dispersed people to converge. It may converge people dislocated in different countries as well people within the same country, maybe only one block away from one another if contexts like that of authoritarian countries do not allow forms of social gathering to take place in the streets. According to Wolfson, the new technologies have simply “enabled new possibilities for the scale, strategy, structure, and governance of social movement” and allowed the grass-roots, populist activism to become global (Wolfson 2014:4). Perhaps more than a change in the formation of social movements, the digital space has simply provided a new ground for the evolution and development of activism in the digital age.

Before assessing the role of digital media in the formation of what is here argued to have been a (silent) form of online mobilisation in the years leading up to Syria’s uprising, this section will analyse the context in which opportunity structures created the perfect “astral moment” for the emergence of dissent through online platforms. This study shares Oleinik’s assumption that social, institutional and economic contexts provide the primary conditions for social movements (otherwise called opportunity structures), though it asserts that it is their combination between motives for contention with new media (mobilising structures) that paves the way to popular mobilisation (Oleinik 2012). As represented in Figure 1, the opportunity structures constitute the opportunities or constraints that drive the social movement, whereas the mobilising structures are the resources necessary for the mobilisation. The new media have become a new way of social networking and therefore a new catalyst tool in the formation of social movements.
During the presidency of Bashar al-Asad the country experienced the pressures of opposing forces pushing towards authoritarianism, reformism and globalisation. Most research on opportunity structures has shown how changes in some aspects of the political system generate new possibilities for collective action. The vulnerability of the political system creates the chance for others to seize the opportunity and push through social change. This vulnerability can be the result of many factors such as increasing political pluralism, decline in repression, division within elites or increased political enfranchisement (Cragun, R. and Cragun, D. 2008). In the case of Syria, as represented in Figure 2, three major dynamics are identified as having placed the country under great friction, offering the opportunity structures necessarily for a popular mobilisation: pressures from below, coming from the people, pushing for socio-political reforms; pressures from above, coming from the government, which granted limited reforms and openings; and pressures from the outside, coming from the West, adopting the strategy of supplying development aid, in the format of media projects, to empower civil society organisations to the disadvantage of the state. As previously mentioned, this study contributes to the existing scholarship on Syria, situating the focus within the wider literature on Arab authoritarianism, Arab
media and social movement theory. New media technology, here under scrutiny, cannot be analysed in isolation from other factors, rather feeds into the existing scholarship on Syria and enriches with new connectors. The aim is to understand the Syrian uprising of 2011 not as an inevitable yet unforeseen event, rather as the outcome of a rising civic engagement and digital connectivity that was emerging in the country.

![Diagram of Opportunity Structures, Pressure from above, Pressure from below, Pressure from outside, Syria]

**Figure 2. The Formation of Syria’s pre-Uprising Mobilisation**

**Opportunity Structures**

**Pressure from below**

Since the start of the presidency of Bashar al-Asad in 2000, an informal social mobilisation has made inroads in the country, challenging the regime’s authority and decision-making. “The Syrian uprising of 2011 was not, by any means, the first opposition movement under Bashar al-Asad” (Ghadiban 2015:91). As Ghadiban argues, Bashar al-Asad faced growing dissident activism “through rises and declines, articulating several enduring
demands but ultimately failing to bring about the desired changes” (Ghadiban 2015:91). This process started at the eve of Bashar al-Asad’s presidency, with the bursting of a lively civil society movement called the “Damascus Spring,” where a diversified group of people, made up of intellectuals, artists, and activists campaigned for a change in social, political and economic structures (George 2003). The country witnessed for the first time in decades to the resurgence of public gatherings, discussion forums, political debates, community associations, cultural forums, women and human rights’ organisations. Independent gatherings (*muntadayat*) spread through the country with the intent of offering a platform for discussions on arts and culture; yet these soon turned into stages to discuss issues about politics, religion and human rights (Stenberg, Salamandra 2015:5). Courageous political stances were taken by many civil society groups, like the “Statement of the 99,” drafted in September 2000, a manifesto signed by 99 Syrian civil society activists demanding the end of the state of emergency which had been in effect since 1963. Along the same lines, but much bolder in its tone was the “Manifesto of 1000” in 2001, which repeated the earlier objectives, but also explicitly attacked the foundation of the Ba’ath party and advocated a multi-party political system with political and constitutional reforms (Sawah 2012). In 2005, opposition figures as well as religious and secular political parties became signatories of the “Damascus Declaration,” which publicly criticised the government for being authoritarian and asking for profound reforms (Pace and Landis 2009). It was the first document since the beginning of Ba’ath rule in 1963 to receive endorsement from so many different political forces, like the leftists, nationalists, Kurdish parties, the Muslim Brotherhood, intellectuals and artists (Ghadiban 2015). Hinnebusch and Zintl note how though unsuccessful in achieving their requests, these initiatives provided models of civil society mobilisation that activists would build on when the revolt of 2011 started (Hinnebusch and Zintl 2015). Despite their inability to obtain any noticeable change, such initiatives manifested a growing sense of political maturity in Syrian civil society and represented a growing force, exercising pressure on the government (Kawakibi and Kodami 2003). In 2006 exiled Syrian opposition leaders established the National Salvation Front (NSF), a coalition meant to bring democratic regime change in Syria, which gathered different opponents to the Syrian regime, namely former vice president Abdul Halim Khaddam, the Muslim Brotherhood, Kurdish and communist parties and
independents (Ghadiban 2015:96). Syrians also plunged into a vivid cultural life represented by fora such as the Forum for National Dialogue and the Jamal Atassi Forum, offering people a place in which to express their opinions and debate the steps to produce reform (Sawah 2012). A number of human rights demonstrations, like those of the Syrian Human Rights Association and the Defence of Democratic freedoms and human rights took place in the capital.9 The regime hardly welcomed the emergence of a Syrian civil society movement, especially its political fringes. As a consequence, the movement was strongly ostracised, its members harassed and punished. Despite the repressive measures adopted by the authorities, the Syrian civil society movement did not die with the Damascus Spring but moved underground, or rather online, abandoning drawing rooms and coffee shops for the virtual space of the Internet. The regime tolerated the existence of such mobilisation if limited to cyber space, believing that it would have been innocuous for the state’s stability and would have instead gained the West’s sympathy, representing the regime’s new openings towards pluralism and making the country seem at step with the globalised world. It is at this point that scholarly interest towards the thriving Syrian civil society phenomenon saw a drastic decline, undermining the role that its online version had had. The beginning of the new presidency of Bashar al-Asad coincided with the country’s access to the Internet and social media users, the spread of satellite dishes on the top of Syrian homes and of smart phone holders. The Internet did not just provide a new territory to extend old struggles with new practices, it contested a decades-long culture of fear and established new state-society relations (Shaery-Eisenlohr and Cavatorta 2012).

*Pressure from above*

In Syria, the new President carried out a series of reforms, which at the time were ridiculed for not being “reformist” enough. With the benefit of hindsight, those reforms may have been the stepping stone of long term effects. Some of these reforms were literally cosmetic, like the ones that changed the school’s uniforms from a khaki colour to a light blue for boys and pink for girls. The same genre of reform was the one that allowed the opening of fancy cafes and restaurants for the well-off of the country. Of a different type were the reforms that led to the closing of the infamous Mezzeh prison in Damascus; the release of political prisoners (600 only in November 2000); the replacement of the old guard with young and western-educated
ministers between 2000 and 2005; the licensing of several private universities; the creation of a Ministry of Expatriates to encourage the return of Syrian migrants; the country’s access to the Internet with projects to develop IT literacy among the younger generations as well as also in remote areas of the country; the new media law (decree no. 50) which opened media outlets to private ownership (Lesch 2005; Caldwell 2010). As it will be discussed later in this paper, the Internet played a crucial role in overcoming the atomisation of society and providing the basis for a mobilisation against the regime. It is not a case that people’s access to the Internet and mobile phones increased from less than 1 percent in 2000 to 21 percent in 2010 for the Internet, while mobile phone use reached 60 percent. Amid these encouraging attempts of reform, there were also discussions about the abolition of the Ba’ath Party in Syria, which did not lead to its actual realization, but still represented an unprecedented hypothesis. Heydemann aptly defines these reforms as “authoritarian upgrading,” indicating an attempt by the new president to hold onto power, and “reconfigure authoritarian governance to accommodate and manage changing political, economic and social conditions” (Heydemann 2007:1). However, as detailed by Hinnebusch and Zintl, the economic liberalisation inaugurated by Bashar al-Asad and his technocrats, altered the regime’s social base, engineering a turnover on leadership and cadres and concentrating power in the presidency and the Asad family at large (Hinnebusch and Zintl 2015:6). Syrian regime officials referred to the ‘Chinese model’ of reform, one that improves living standards but for the benefits and stability of the regime. If one bears in mind De Tocqueville’s argument holding that the most dangerous moment for an authoritarian regime is when it attempts to reform itself, these reforms had potentially destabilised the status quo. In this regard, Salam Kawakabi observes that Bashar al-Asad’s upgrading consisted in the liberalisation of the economy, technological development and reliance on civil society organisations to deliver services that the state was not able to offer (Kawakibi 2012). One example was the establishment of a number of GONGOs (government-organised non-governmental organisations) under the patronage of the Syrian First Lady Asma al-Asad. While at first this strategy allowed the state to keep control of the new civil society actors, with time they widened their activities and audience away from the regime’s control. Therefore, the survival tactics adopted by the regime, combined with other factors, produced unpredicted consequences (Hinnebusch 2012).
Pressure from the outside

The change in Syria was not generated only by internal factors, whether coming from the people or the authorities, but also by exogenous causes. An overall picture would show Syria heavily affected by foreign powers’ policies and by ongoing destabilising regional events. On the one hand, the country opted to initiate a process of liberalisation as an effect of the economic and political reforms inaugurated by the government, which led to the signing of economic agreements with new international partners like the European Union, Turkey, Iran, China and several Arab countries (Scheller 2013). On the other hand, ongoing discrepancies with the US administration, in particular with the Bush presidency, made Syria fall under a dark light and emerge in the list of the Axis of Evil. This came at a time when the country was suffering from regional instability caused by the second intifada (2000-2005), the dramatic event of the fall of Baghdad in 2003 and the fear of facing a similar destiny, in addition to the exacerbating effects in the wake of the assassination of the Lebanese Prime Minister Rafiq Hariri in 2005 and Israeli wars against Syrian allies Hezbollah and Hamas. Despite these external pressures, the regime proceeded with economic liberalisation, moving its trade towards China, Iran, Turkey and the Greater Arab Free Trade Association (GAFTA) (Hinnebusch and Zintl 2015:14). The new investment inflows produced a boom in private sectors like trade, housing, banking, construction and tourism (Hinnebusch and Zintl 2015:288). In this context of reforms, economic liberalisation and increasing diffusion of media technology Syria became the target of media assistance projects promoted by the West. As discussed by Brownlee in her study of Syria’s media aid architecture, the country became the target of a number of media development aid programs aimed on the one hand at improving the development of the media sector in line with Western models of independent journalism and on the other at empowering a class of civil society activists (Brownlee 2017). Arguably, this strategy represented the West’s new approach towards Syria and other unfriendly regimes, one which aimed at destabilising them by simply implementing aid programmes, instead of waging an Iraq-like war.

This scenario – which is an oversimplification – of the contextual situation in Syria under president Bashar al-Asad, demonstrates how a combination of factors created the opportunity structures necessary for people to engage through forms of social mobilisation via the channels offered by the
new media and in particular, the Internet. The vulnerability of the political system generated by opposing deviant forces caused by a regime willing to open and modernise the country and at the same time tighten its control and repression, all combined with an unstable political regional setting and the West’s investment in media and civil society actors, created the chance for new modes of social and political action through online platforms.

**Mobilising Structures**

Goodwin and Jasper argue that social movements are not created by a single factor but by a set of variables that interact. It is a combination of social, institutional and economic conditions – like the ones just described for Syria – which provide the underlying motives for social movements (Goodwin and Jasper 2003). In this regard, multiple studies have demonstrated that grievances alone are not enough to bring people to act collectively (Buechler 2000). In order to mobilise, people need organisation and resources. Opportunity structures and mobilising structures act *in tandem* to create social movements. Opportunity structures provide the motivation for movement organisations by materialising the political, social and economic conditions necessary for mobilisation. Mobilizing structures, in turn, constitute those formal and informal vehicles through which people organise and engage in collective action.

Communication, one infers, is at the basis of any form of popular organisation. As Tilly holds, social movement theory should not place the individual as the primary unit of social movements, rather it should identify it in the interaction between individuals (Tilly 1984). In fact, individuals have proved to have participated in collective action only when they are sure that others are participating (Wright 2001). Trust and confidence in the adherence of other participants can only grow out of communication between individuals (Lim 2012). Within this design, the new information and communication technologies have inaugurated new paths for popular movements and new avenues of research for scholars. If one considers a closed regime like the one in Syria, the possibility for traditional media to act as mobilising structures of a popular movement had been practically impossible. State and media almost coincided, as traditional media were owned and jealously controlled by the state. With the coming of age of new information and communication technologies, the capabilities of the Syrian
regime to control the flow of information and people’s inter-action were drastically reduced. This embodied a turning point in the recent political narrative, given that the underlying motives for a popular mobilisation already existed. People’s access to the new media in Syria was the vehicle and the space for social mobilisation.

While previous social movements had generally been organised around traditional hubs like cafés, universities and underground reunions, with the coming of age of the new media, people found new ways and spaces to meet, discuss and organise, opting for a strategy more convenient in terms of time-frame, money and safety. This was the case in Syria, where the civil society movement born on the eve of Bashar al-Asad’s new presidency was crushed vehemently by the regime and was obliged to go underground (virtually). The movement had, somewhat naively, believed in the initial promises for reforms from the new president, promoting initiatives and debates on public matters in public spaces. However, in the course of a few months it became clear that the regime was not seriously committed to respecting the promises made, inaugurating a staunch witch-hunting of all initiatives that the regime presumed could jeopardise the state’s stability. Satellite TV and the Internet produced the most visible changes in terms of civil awareness and engagement. Arabic-language satellite television in general, and al-Jazeera in particular, became a major source of information for Syrians, replacing national news production. Al-Jazeera’s effect in Syria was felt not just in terms of news and information production, but as a platform for the Syrian civil society movement. For instance, at the time of the Damascus Spring in 2001, satellite television played a significant role in keeping Syrians updated with events, which went unreported by state-run television. 14 Ghadiban notes how al-Jazeera infringed on all the regimes’ redlines, covering issues on democracy, human rights and Islamic fundamentalism, and having extensive coverage of the Arab-Israeli conflict (Ghadiban 2015). This generated new understanding and motive for reflection when programmes like Bila Hudud (Without Limits) hosted the leader of the banned Syrian Muslim Brothers, who presented himself as a promoter of democracy, demanding the end of the State of Emergency law. Even more daring was al-Jazeera’s interview of the opposition of Monzer al-Mouseli, an independent member of the Syrian People’s Assembly, who opposed the constitutional amendment passed to allow Bashar al-Asad to run for president despite his youth (Zisser 2006:78). Beside established satellite TV station like al-Jazeera and
al-Arabiya, other media offered Syrian opposition a place to express their views, like the two satellite TV stations launched by Syrian dissidents in Brussels and London, respectively Zanoubia and Barada TV (Ghadiban 2015:106). The latter, in particular, played a fundamental role in the years predating the uprising as an anti-regime information campaign venue, with shows like “Toward Change” – a panel discussion on current events – and “First Step” – a programme produced by Syrian dissident groups based in the US. Syrians responsiveness to the new programmes offered by satellite TV channels was evident from the proliferation of satellite dishes on the roofs of Syrian homes as well as from the number of callers from Syria participating on live TV shows (Ghadiban 2001:81).

Alan George compares the proliferation of satellite television and the Internet to a concrete nightmare for authoritarian regimes like the Syrian one (George 2003:134). The advent of the Internet produced the most thought-provoking examples of civic engagement, as it was used by the political opposition to circulate its bulletins and statements; to spread petitions and collect signatures on political and social issues; to inform the public of the regimes wrongdoings; and to publish literary works that had been censored by the state. Numerous news websites served as online windows to discuss topics like drug consumption, homosexuality, female harassment, interfaith marriage, progressively infringing on many established taboo topics. Examples of this type of civic engagement are numerous but we are here going to mention only a few in order to save space for the theoretical speculations. A significant case is represented by the news website All4Syria.com, one of the online most read bulletin, with over 15 thousand daily subscribers (Kawakibi 2010). The longevity of the website was constantly obstructed by the regime for its content. In fact, All4Syria offered a collection of articles from the national and foreign press and a ‘readers complaint section’ that took charge of exposing problems of corruption in the country, by directly naming those causing it. The digital space welcomed people from different walks of life to find their preferred communication means, whether through blogs, Facebook pages, news websites. All these means offered Syrians the opportunity to carry out crucial battles on social matters for the first time, some worthy of being mentioned. For instance, a university student launched a campaign on Facebook, called “We want to go forward, not backward,” which counted 1,339 members in March 2010 (Baiazy 2012). The group was concerned with women’s rights and hosted
debates on topics such as interfaith marriage, honour crimes and discrimination against women in Syrian law. Rami Nakhle, a prominent Syrian activist who gained an international reputation only after 2011, launched two important online campaigns in 2009, the “Get Your Rights,” to help Syrians to circumvent Internet censorship and the “Enough Silence Campaign,” calling for the lifting of the Emergency Law and the release of political prisoners. In other cases, the Internet turned into a window to denounce malpractices, like the YouTube video that showed a police officer receiving a bribe, which was watched 366,703 times and received 1,323 comments (Baiazy 2012).

Significant is the role that the Syrian digital space played as a platform for citizens to carry out crucial battles on social matters and mediate new roles in relations to the state. Successful campaigns like the National Campaign against Honour Crimes, aimed at improving women’s rights in Syria and promoting citizenship and the Personal Status Law Campaign to promote civil rights, the national campaign to annul an amendment of martial law, the campaign for women's right to confer their citizenship on their children, the campaign to lower mobile rates and the one to protect young women who had been victims of rape, all occurred through the Internet (Sawah 2012). These online campaigns were impressively well-organised, raising awareness about the implications of such laws, signing petitions calling for the withdrawal of the laws and presenting them to officials of the government. Similarly, many petitions and denunciations on a number of topics have circulated online. In particular, two political events have had a great success thanks to the Internet: the Damascus Declaration for Democratic National Change (October 2005) and the Beirut-Damascus/Damascus-Beirut Declaration (April 2006) (Kawakibi 2010). Both documents circulated online and collected large number of signatories. The importance of such initiatives was not simply that they managed to change laws and raise civic awareness but they showed how the Internet could become an effective tool for expressing political, social and cultural protests. These initiatives represented a changing social and political pattern in Syrian civic life, which broke the civilian stagnation that the regime had created and so much invested in. Moreover, the type of dialogue that emerged in the digital space broke with the traditional hierarchies based on an imbalance of powers and mostly deconstructed the fear that the regime had inculcated into citizens. All in all,
the Internet became the only effective tool and space for expressing political, cultural and social protest.

Rethinking the Notion of Social Struggle with the New Media

Before the outbreak of the Syrian uprising, Syrian studies mainly covered issues of elite politics, foreign policy, and ethnic/identity politics. Few focused on civil society and those that did mostly tended to conclude that the government’s practise of promoting autonomy and transferring responsibilities to citizens was a tactical expedient to infiltrate society and control it (Gilbert and Ward 1997). As such, most of the epistemic community—before the outbreak of uprising in 2011—failed to recognise the fact that in the long term these quasi-autonomous dynamics created unintended consequences for the country’s political and social stability (Kawakibi 2012). If not for the scholarship on Syrian musalsalat (TV series), studies on the role of new media in Syria were scant as the expansion of the Internet and the new technologies was weighted with Western terms for comparison, therefore appearing irrelevant of study and non-effective vis-à-vis the perspective of social or political change. However, what this paper argues is that Syria witnessed the emergence of an unstructured form of civic resistance and mobilisation through the digital space in the years that predated the uprising. How can we define this type of mobilisation? Is it a prototype of Syria’s uprising of 2011? Does it classify in terms of “social movement,” understood as an organised and territorially based movement qualifying for Castell’s “social transformation” or Van Naerssen’s “emancipation” or should it opt for other definitions? (Bayat 1997).

If one had to adhere to the classic definition of a social movement, it would most probably identify the Syrian uprising of 2011 as such, and not its preliminary mobilisation. If social movements are classified as durable structures of collective action aimed at producing social change, then the Syrian pre-uprising online mobilisation was not a self-identifying movement, with structured action and with clear-cuts objectives. More likely, it was a form of collective action with strong elements of spontaneity, whose organisation focused on single-scope campaigns, and whose unwrapping was largely self-generated and primarily concerned with action over identity or meaning. According to Diani, the nature of regimes in the Middle East, which criminalises politics and imposes strategies of control and repression, does
not allow citizens to challenge the authority through coalitions and movements, rather through community-based informal resistance (Diani 2008). In this light, Syria’s online mobilisation can be defined as the expression of “everyday forms of resistance,” which however differs from Scott’s definition in that its actions are not individualistic and quiet, but exemplified by collective campaigns that search for visibility through the digital space and that aim at widening adhesions (i.e. the numerous online petitions) and visibility through online platforms. In a way, these campaigns may be seen as forming a “movement in itself,” a social movement per se only when the actors involved become conscious of their shared grievances and articulate their actions within a wider and long-lasting plan aimed at social transformation. This may be identified with the uprising in 2011, where the anti-establishment campaigns moved from digital platforms to the streets. This shift from the online to the offline street protests marks the change from atomised episodic collective actions, limited to cyber space to “molecular” durable mass campaigns, conscious political acts targeting political authority.

I argue that what Asef Bayat defines as “street politics,” the physical and social space of the “streets” where citizens confront the authorities, has moved from the alleyways, pavements and public parks of the city to the virtual alleys of the Internet (Bayat 1997). As Fahmi holds, the new information technologies have created new “geographies of protest,” “shifting their [activists’] campaigns and resources to alternative virtual venues” (Fahmi 2008). Citizens now have the chance to choose or combine traditional mobilisation in the urban space with online platforms where they can engage in debates and organise collective protests. In Syria, no real anti-establishment movement would have been able to mobilise in the streets of Damascus or Aleppo, as the regime would have crushed it as it did in Hama in 1982 (George 2003). Wiktorowicz stresses that contrary to Western democracies where social movement activity takes place largely through social movement organisations, in the Arab world this can be pursued only through dense informal networks (Wiktorowicz 2004). Fear has been the most powerful weapon adopted by the Syrian regime, which translated into obedience, civic disengagement of people, social fragmentation and atomised connectivity (Wedeen 2013). With the new media (satellite TV and the Internet), Syrians not only learnt about other realities but they engaged in communication exchanges, discussion forums, awareness campaigns and
petitions on social matters which it would have been impossible before. The online platforms became the only existing space where organisation, communication and networking among citizens was possible. If the Asad regime had been able to impose full dominion in the public space, ensure full respect and discipline of its citizens in the streets, to put it in Foucault’s words, where space is power, this could not be replicated in the infinite space of the Internet (Foucault 1998). Here ordinary people could exercise what Bayat defines as “the art of presence,” citizens’ ability to circumvent constraints and discover new spaces of contestation, to confront the authorities, expose the state’s wrongdoings and re-appropriate the code of symbols and language that the regime had monopolised for long time (Bayat 2010). Bayat argues that the “street” has the capacity of mobilising people without an active network, through the instantaneous communication that the public space of the street generates. The street gathers people and sentiments and thereby becomes the space where citizens engage in collective actions, driven by the force of necessity, the realisation of sharing the same grievances and of desiring the same goals, rather than articulating conscious political acts. Instead, the new information and communication technologies have the capacity to create a durable communication among atomised citizens, create a network based on a common identity and produce conscious public campaigns with broader adhesions. While the state’s police might occupy a street or square, breaking the solidarity and cohesion that that physical space had created, with the Internet, the bound among people is rarely broken by the state’s interference or if it happens, this only lasts for a few hours, maximum days. Both Bayat’s “streets” and the Internet have the advantage of also rounding up the passive networks, bystanders, meaning people not politically engaged and who are drawn into the contestation by the fact of simply walking-by at the time of the contestation, or in the case of the Internet, following online debates and campaigns.

Syrian online mobilisation resembles more Bayat’s definition of non-movement different from the prevailing social movement theories formulated by Western social scientists, as the non-movement is the collective action of non-collective actors, “ordinary people whose fragmented but similar activities trigger much social change, even though these practices are rarely guided by an ideology or recognisable leaderships and organisations” (Bayat 2010:14). Syria’s online mobilisation identified with a collective and growing phenomenon of intolerance towards the state’s authority and request for
political and social reforms, taking the form of episodic and single-target political and social campaigns through online platforms. Only in 2011, did this (non)movement became self-conscious and cohesive, organized under common objectives and coordinating public acts of contestation. The online predecessor of this movement was its virtual avatar, smaller in size but still unifying voices under common targets and actively involved in contrasting the authorities through the online public spaces. The success of such (non)movement was limited by its virtual existence. In fact, in order for a non-movement to become a real movement – as opposed to a virtual one – the virtual space needs to meet the real ground, online activism needs to be coupled with offline activism. Accordingly for the Internet to influence political participation it must include activities that can be carried out both online and offline, activities that can be executed only online and activities that can occur only offline (Anduiza 2009). In 2011, by spreading contention from the virtual peripheries to the physical space of the streets, the Syrian mobilisation acquired the full degree of social movement, complying with the mainstream framework of Euro-American social science studies.

Conclusion

This article intends to explain the outbreak of the Syrian uprising of 2011 by looking at the changes occurring in the preceding decade. It appears that the presidency of Bashar al-Asad from 2000 to 2011 was a period of great changes, strong pressures coming from the authorities, ordinary people and external powers, with contrasting forces pushing towards modernisation, conservatism and globalisation. Under these circumstances, the hybrid regime of Bashar al-Asad witnessed the development of modes of social and political action that have eluded common conceptual frames of social movement, for their online format that developed despite the presence of a recalcitrant authoritarian government.

The online nature of the mobilisation generates some difficulties in terms of theoretical conceptualisation, having to collide two field of research, media and social movement studies and clashing with Western-centric scholarly works. Indeed, except for few exceptions, the Middle East has been analysed with Euro/Western-centric normative assumptions, which have emerged from specific historical formations in the West and which are still assumed as teleological, universalistic and totalising ways of understanding
the world (Matar 2011). European studies have been framed by the Marxist/Hegelian tradition and notion of history, while the North American tradition adopted a more empirical approach, concerned with the specific conditions that facilitate or impede the rise of such movements. What these Western approaches have somehow failed to do is to engage with the rise of collective mobilisation in non-Western societies and specifically in the Arab region, at least till the outbreak of the Arab uprisings. Bayat aptly suggests that the main problem derives from assuming the Western model as the “norm” to uncritically explain non-Western contexts which have clearly different social composition, political institutions and thereby different dynamics of resistance. Ignoring the fact that the Middle East might not be compatible with the modern Westphalian nation-state has, on the one hand, turned a blind eye to the vast array of often institutionalised and hybrid social activities occurring in the region and on the other hand, produced a body of work that conceptualises the Middle East as, inherently, “exceptional” (Bayat 1997; Matar 2011). This study, though deeply indebted to mainstream Euro-American political science, privileges alternative narratives to those that had hitherto failed to understand the changes maturing within the Syrian social fabric and that have been at the basis of the outbreak of its uprising. According to most Western sociologists, the definition of social movement applies to those movements that present an organised and sustained claim on the authorities; display a repertoire of performances (i.e. street protests, public meetings) and are represented by the presence of a (charismatic) leader (Bayat 2010). This type of structure does not necessarily comply with Middle Eastern states (and often not even with Western cases if one considers the anti-austerity and anti-corruption movements that have recently developed from Europe to South-America). Social mobilisation in the Arab world seems to be oriented towards the attainment of economic and political rights rather than more generalised human rights. In Syria, the authoritarian structure of the state, the overwhelming presence of secret service agents ingrained in the social fabric and the fear that the regime instilled in its subjects, would have not permitted the rise of any type of dissent, chiefly if represented by a leader and taking place in public areas (George 2003). The Internet opened the way to a new type of social mobilisation, with a new modus operandi and a different repertoire of tactics to confront the authorities. The Syrian online mobilisation, whether one classifies it as a movement or non-movement, sustained claims on the authorities, but not as anti-establishment movement, with defined
objectives, established strategies and ideologically driven. The repertoire of actions differed from traditional offline protests, and opted for online petitions or campaigns with no recognisable leaderships, as the Internet tends to dismantle pyramidal power structures, allowing everyone to be part of the same voice. This movement developed overtime, circumventing constraints and transforming the online platforms into spaces in which to make “oneself heard, seen, felt and realised” (Bayat 2010). This implies that the analytical treatment of social movement may require a more fluid and flexible framing, one that is grounded in the cultural landscape, aware of the influence played by the new media technologies and the power dynamics exercised by all operating structures.

What has been said hitherto on social movement theory can easily be extended to media studies. Scholarly work on Arab media, including some recent research, is deeply embedded in Western methodology of research, with a tendency to conceptualise the region with top-down analysis (Mellor 2007:42). The advent of the new information technologies has not produced any substantial change in the analysis, which still remains confined to Western approaches, whether for narrative or thematic reasons. Thematic research is mostly interested in issues of structure, censorship and ownership, while the narrative is ingrained in Western paradigms of analysis, which tend not to problematise the issue in question within the socio-political context and its agents. For instance, the focus of scholarly work on transnational satellite broadcasting and its impact on the construction of identities and politics, lingers on institutional changes (private media) and structure (talk-shows with call-in audiences), discarding completely the non-institutional transformation that satellite TV channels produce within private domains and domestic spheres. The obsession with finding the “public sphere” within the new broadcasting phenomenon diverts the question to whether such concept can be transported to other contexts, tout court (Matar 2001:203). Another common trait of the literature on Arab media studies is the tendency to flatten the subjects of their inquiry to a monolithic group of people. This appears when it comes to referring to the Arab people as a coherent and unitary group, speaking one language and sharing the same cultural background, but also when referring to the class of media professionals or the audience (Mellor 2007). In Syria, journalists working in the private sector developed a stronger sense of responsibility and higher professionalism, while ordinary citizens responded positively, and enthusi-
astically, to this form of media, both becoming part of a new process of civic consciousness. As a consequence, journalism became more accountable and citizens more participatory, each one contributing to the development and empowerment of the other. This means that the effect that the new media may produce on society cannot be measured in terms of the number of existing satellite channels or private media outlets. It needs to be coupled with a more in-depth analysis of what that change produces at an individual and collective level.

Similarly, studies that looked at levels of Internet penetration in Syria and to the phenomena of blogging and social networking have been limited in scope due to their quantitative approach and because of an unshakable Western bias. Studies have focused on data that quantify the number of web surfers, websites, Internet cafes existing in the country, rather than looking at the way the new technology is leveraged by its people (Wheeler 2006). This data has proved non-objective for not taking into account factors such as the fact that Syrians primarily accessed the web at Internet cafes, or that family members logged-in using the same account. Moreover, this data does not reveal the most interesting aspect of the use of digital technology, meaning the effects that this technology produces not in terms of activism but in terms of civic engagement and human interaction offline. This means that the study of the Internet’s use in Syria prior to 2011 required an assessment within the specific local circumstances to perceive its real meaning, rather than being compared to Western standards as has often been the case, where the Internet has had a longer history.21 Yet, these results have not been supported by studies that looked at who was using the Internet, what the content of online activism was and what offline connectivity was created among peers or family members once the laptops were switched off.

When quantitative analysis is not supported by a qualitative and contextual study, the data retrieved is poor in informative content and risks (re)producing disorienting knowledge or, as is often the case for the MENA, labelling the region with a sort of inescapable exceptionalism. Surely, new media diffusion cannot be interpreted as an index to determine political and social change if the data perceived focuses on the *hic et nunc*, while ignoring the historical transformation that brought to the emergence of the new media. Moreover, to transform the Internet into an information weapon, as Howard points out, it is not necessary to have all citizens tuned
online, as a networked society only needs a few “brokers” or “tech-savvies” to keep everyone else up to date (Howard 2010). In Syria a group of brokers with high standards of IT knowledge constituted a minority, approximately 10-20 percent of the population, usually made up of professionals, students and governmental employees, that assumed the task of keeping an online connection between the strong, yet offline social networks (i.e. universities, mosques, unions, families, etc.) and the wider digital public (Della Ratta and Valeriani 2012). The role of these “bridge leaders” is explained by the “Two-Step Flow Theory” developed by sociologists Katz and Lazarsfeld (Katz and Lazarsfeld 2006). The theory holds that a minority of people who have access to broader information sources, receive the information and channels it into the broader public. In Syria, a pocket of online dissent propagated by activists like Rami Nakhle, Razan Ghazzawi, Razan Zaytouneh and Rami Jarrah, became essential at the time of the uprising of 2011, where to ensure mass participation in protests and manifestation, it was fundamental to homogenise the strong ties of the online social networks with the weak ties of the offline ones, turning to graffiti, collective revolutionary hymns and public gatherings (Brownlee 2013). However, these activists played an even more important role prior to the advent of the uprising, using the Internet as a medium to stir debates among citizens, stimulate critical thinking and coordinating online campaigns, which expressed the new power relationships establishing between citizens and authority.

In view of what has been discussed this far, this study frames the outbreak of the Syrian uprising by looking at the historical formation and processes that brought to emergence a new type of media and at the effects this produced on the local social fabric. The aim is to place the Syrian case in a wider debate, which moves towards a reconceptualisation of social movement theory as an effect of the tremendous impact that the information and communication technologies are having on popular contentious politics (Carty 2010). After all, revolutions were always aided by new technologies: the reformation in Europe went hand in hand with the printing press (Rubin 2011); the revolutions of 1848 were loosely supported by the use of the telegraph that transmitted news across Europe (McKeever and Rapport 2013); the age of modern terrorism started with the invention of dynamite (Merriman 2009). Today, newly emerging ICTs are redefining social relations, cultural practices, economic and political orders, offering perspectives
of hope also for closed regimes. With a specific reference to the Syrian case, the new technologies allowed the counterweighting of the culture of fear and the offer of the possibility to new civil society agents to carry out campaigns challenging centralised hegemonic vision of the ruling elite in ways that traditional media would have never permitted.

References


Notes


4 The idea that digital technology can foster political participation and social activism dates back to Howard Rheingold’s concept of the smart mobs (2002), used to refer to a crowd that acts co-ordinately as an effect of the technology-mediated participation of a number of people. Howard Rheingold, 2002. Smart Mobs: The Next Social Revolution. Perseus Group Book.

5 Ivi, 11.


8 Ray Hinnebusch and Tina Zintl, “The Syrian uprising and Bashar al-Asad first decade in power.”, 294.

9 In the months following Bashar al-Asad’s taking office, human rights organizations like the Committees for Defence of Democratic Freedoms and
Human Rights in Syria (CDF) and the Syrian Human Rights Association (SHRA) emerged.

10 According to Amnesty International (AI), the majority of those released were Muslim Brothers and members of communist parties. The number of political detainees amounted to 1,500 after November 2000, with another 140 political prisoners released in 2001. Amnesty International also commented that in Syria there were fewer instances of torture.


12 In June 2005 the Ba'ath Party Congress recommended the establishment of a new political party law, which would allow non-religious and non-ethnic parties to run in future elections. See, ‘Syria: a Wasted Decade,’ Human Rights Watch, July 2010.


15 Interview with Syrian activist Rami Nakhle via Skype, July 2, 2013.


20 Alan George argues that Syria in 2001 had one-full time secret policeman per 257 Syrians, considering the country’s population of 16.7 million. This means that if 59.5 percent of Syrians are aged over fifteen years, and that only these adults are of interest for a secret agent, then the ratio is of one policeman per 153 Syrians.

Big Data in the MENA Region: The Next Path towards Socio-economic and Cultural Development

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Abstract:
As elsewhere, big data is perceived as central to the Middle East and North Africa (MENA) nations’ socio-economic and cultural development. The Gulf Cooperation Council (GCC) region, by virtue of its advanced information technology infrastructure, relevant knowledge economy policies and flexible free government and market orientations, stands at the forefront of MENA’s big data integration. This article discusses selected sectors in the GCC region that leverage the power of big data including the media business industries and the oil and gas industry. The authors argue that in addition to bolstering big data applications in the aforementioned sectors, MENA countries also need to ensure that those applications embrace other sectors like education, government services and cultural development. Yet, to be able to achieve those goals, the region needs to address numerous challenges pertaining to knowledge infrastructure, human capital, technology mindset and regulation.

Keywords:
big data, Middle East

Introduction

Around the world, big data is viewed as a unique technological opportunity for businesses and governments to fully harness the power of analytics in order to optimize decision-making outcomes. In the Middle East and North Africa (hereinafter MENA) region, big data holds big promises for development across multiple sectors, but it simultaneously poses threats and challenges. Academic work on big data adoption in the Arab region is scarce. This article addresses this shortage and adds to the conversation about big data opportunities and challenges. Using the case study approach, this work discusses examples of big data adoption in key sectors of the studied region.
Literature review

In its basic configuration, big data describes the exponential growth and availability of data that traditional data-processing applications are no longer able to handle (Schönberger and Cukier 2013). Big data refers to “things one can do at a large scale that cannot be done at a smaller one, to extract new insights or create new forms of value, in ways that change markets, organizations, the relationship between citizens and government, and more” (Schönberger and Cukier 2013:6). Generally speaking, the end goal of big data business is to turn a wide range of data sources such as call logs, mobile banking transactions, online user-generated content, online searches, and satellite images into actionable information. By harnessing complex computational techniques, big data users aim to pinpoint trends and patterns within and between extremely large socio-economic datasets. For example, it has been widely argued that real-time awareness of population status and of feedback on the effectiveness of policy actions “should in turn lead to a more agile and adaptive approach to international development, and ultimately, to greater resilience and better outcomes” (Global Pulse 2012:6).

In this article, the authors argue that big data technology carries huge potential that can be leveraged to significantly enhance human development and sustainability. As noted by the UN Global Pulse initiative, at the most general level, when properly analyzed, big data “can provide snapshots of the well-being of populations at high frequency, high degrees of granularity, and from a wide range of angles” (2012:6); thus, it contributes to narrowing knowledge gaps within shorter time frames. Four dimensions of big data, known as the four Vs, are identified: volume, velocity, variety and veracity. Charles and Gherman (2013:1071) argue that in addition to the four Vs, one should consider three other factors. The first is “the ability to understand and to successfully respond to the new challenges posed by the massification of Internet access,” the second is “connectedness,” and the third is the ability “to understand data in its wider context and within its ethical implications; and the skills to survive and thrive in the face of complex data.”

In their analysis of the semantics and metaphors of big data, Puschmann and Burges (2014) note that the genesis of big data was in the business realm; first, the data discourse evolved from faster search results and the storage of large volumes of customer data into predictive modeling of be-
havior. Then, the framing in the media of big data evolved; big data now “suggests a shift from relational database management systems to platforms that offered long-term performance advantages over traditional solutions” (Puschmann and Burges 2014:1694). The World Economic Forum’s report on big data (2012) notes the new potential of translating this data into information that leads to actions and responds to the needs of populations, especially low-income groups.

Despite this euphoria about big data, the technology has also generated substantive critical reactions around the world. Mosco (2014) suggests that big data and cloud computing are harnessed by big corporations to consolidate more control over national and global markets. He notes that the key big data players define our knowledge about the changing face of human life by giving peculiar interpretations of data analytics and controlling our access to the cloud. The UN Global Pulse report (2012) notes that big data brings with it new challenges relating to privacy and information access and sharing. Boyd and Crawford suggest that

Big Data triggers both utopian and dystopian rhetoric. On one hand, Big Data is seen as a powerful tool to address various societal ills, offering the potential of new insights into areas as diverse as cancer research, terrorism, and climate change. On the other, Big Data is seen as a troubling manifestation of Big Brother, enabling invasions of privacy, decreased civil freedoms, and increased state and corporate control. (Boyd and Crawford 2012:663-4).

In addition to bringing up a potential for false discoveries, big data also creates a data-rich and data-poor societal divide that has serious implications for social justice and equality.

Big data has been investigated in diverse contexts, including geographic representation (Kitchin 2013), occupy protests and resistance (Agarwal et al. 2014, Margetts et al. 2016), healthcare (Boyd and Crawford 2012) and corporate and consumer advertising and media industries (Couldry and Turow 2014).

Research questions and methodological approach

The media discourse about big data in the MENA region echoes cele-
bratory tones of empowering and “transformative” technologies that hold promise for the Arab World. However, this euphoric mass-mediated tone appears not to be widely reflected in the region’s academic research in different fields, including communication studies. This paper addresses this shortage by discussing how the MENA region and the Gulf Cooperation Council (hereinafter GCC) countries in particular are taking advantage of the value created by big data in various sectors.

The paper explores the promise of big data in a selection of GCC countries where skills, education, culture and policies vary from those in other countries where this discussion about big data first emerged. The paper addresses the following research interrogations:

• To what extent does the ICT infrastructure in the MENA region enable the development of big data in a way that it creates value?

• How are the early adopter industries in the region, media businesses and oil and gas industries, aware of and taking advantage of the developments in the field of big data?

• What are the opportunities and challenges big data brings to the socio-economic development of the region?

To answer these questions, we use the case study approach and argue that big data presents the MENA region with ample opportunities to harness the power of knowledge to bring about sustainable socio-economic and cultural development. Information derived from reports by the International Telecommunication Union (hereinafter ITU), the International Data Corporation (hereinafter IDC), the McKinsey Group, and Booz and Co. are used in this study to describe information and telecommunications diffusion rates and big data adoption levels in the region. While the article describes the information technology landscape across the MENA region, its analysis focuses on selected initiatives in big data deployment in the six GCC nations, which enjoy a world-class IT infrastructure, progressive free-market orientations and visionary government approaches to development.

We find the case study approach most appropriate because we aim to better understand the phenomenon at hand. Leslie (2010:109) argues that researchers opt to use case studies when “the case itself is of interest.” We
chose two cases. The first is the media business industry because, based on preliminary non-systematic discussions with professionals and in line with Puschmann and Burges’ (2014) findings discussed above, we found that this industry is where the discussions about big data are currently happening in this region. We also chose the oil and gas industry because of its importance in the region and its impact on development, which are both unquestionable characteristics; indeed,

> [t]he data generated by oil and gas facilities can be used for more than optimizing a nation’s energy output. It is also ammunition in an invisible war. Some of the most leading powers in the world are planning the battles and vital industries, such as oil and gas, are on the front line. (Salisbury 2012:27)

Thus, improvements in the business of the oil and gas industry are expected to impact the nations and the region alike.

We collected our insights from conversations with professionals in the media, advertising and banking industries, from attending regional conferences about big data (for example, 2014 GITEX Big Data conference), and from examining second-hand data and published articles in the regional specialized press. We have organized the data collected in light of the subject of our investigations: the technological readiness of the region to embrace and take advantage of big data, the current applications of big data in major regional industries and the opportunities and challenges of big data for development.

**MENA IT infrastructure and readiness for big data**

According to Zawya.com (2014), the big data market value in the MENA region was USD 135.7 million in 2013, and it is expected to grow in the GCC countries to USD 635.5 million by 2020, the highest in the region. This could be explained by the fact that the GCC region enjoys the strongest ICT infrastructure in the MENA region thanks to its natural and economic resources, which enabled oil-rich countries to invest in connectivity and speed well ahead of the other countries in the region. While the oil-resourceful Arabian Gulf countries have implemented a highly enabling infrastructure with high-speed Internet and 4G bandwidth, only recently
have countries in the rest of the region that are less populous, less resourceful, or conflict zones approached the global average connectivity rates and implemented a functional IT infrastructure. ITU indicators such as the penetration rate, readiness index, broadband rates, and e-government development index often rank GCC countries ahead of the rest of the countries in the region, as highlighted in the graphs and discussion below, and even ahead of the rest of the world.

In 2014, the average number of households that had access to the Internet in the Arab states was still lower than the world average (36 percent vs. 43.6 percent). Despite the high connectivity rates in the Gulf countries by 2015, this average was still pulled down by low connectivity in some countries such as those in conflict zones – for instance, Libya or Iraq, and Algeria – with 19.2 percent penetration in 2015, as the Figure 1 below shows.

![Figure 1. Internet Penetration Rates (%) 2005-2015. Source: Internet Society (2015).](image-url)

Arab Internet users access the Internet either from home (with an average of 93 percent of users) or from work/school (72 percent; Broadband Com-
mission 2015). This is true regardless of the region. However, GCC residents are much more likely to have access to the Internet when on the move than the rest of the Arab countries. According to the Broadband Commission (2015), when on the move, 62 percent of GCC residents access the Internet, whereas 44 percent of those in North African countries do. Overall, wireless broadband subscriptions are relatively high in the region, while fixed broadband subscription are still under 10 percent for all countries in the region, except Bahrain and the UAE with 13 percent. In 2014, Kuwait, Bahrain and the UAE are ranked third, fifth and tenth worldwide for their mobile broadband subscriptions with 139.8, 126.2 and 114 per 100 capita, respectively (Broadband Commission 2015:88).

The mobile subscription rates are quite high throughout the region, whereas the broadband subscriptions on mobiles reach peak levels in the GCC but are still modest in the rest of the region, as Table 1 below shows. Tablet ownership is also high in the GCC (77 percent, compared to 33 percent in North Africa); the same is true for game consoles (62 percent ownership in the GCC vs. 36 percent in North Africa).

<table>
<thead>
<tr>
<th>Country</th>
<th>HH with computer</th>
<th>HH with Internet access at home</th>
<th>Mobile cellular subscription</th>
<th>Mobile broadband subscription</th>
</tr>
</thead>
<tbody>
<tr>
<td>Algeria</td>
<td>26</td>
<td>23.8</td>
<td>102</td>
<td>0</td>
</tr>
<tr>
<td>Bahrain</td>
<td>93</td>
<td>82</td>
<td>165.9</td>
<td>109.7</td>
</tr>
<tr>
<td>Egypt</td>
<td>43.1</td>
<td>34.5</td>
<td>121.5</td>
<td>31.1</td>
</tr>
<tr>
<td>Iraq</td>
<td>24.6</td>
<td>15.6</td>
<td>96.1</td>
<td>Unavailable</td>
</tr>
<tr>
<td>Jordan</td>
<td>58.7</td>
<td>44.9</td>
<td>141.8</td>
<td>16.1</td>
</tr>
<tr>
<td>Kuwait</td>
<td>83.9</td>
<td>71.1</td>
<td>190.3</td>
<td>Unavailable</td>
</tr>
<tr>
<td>Lebanon</td>
<td>87.9</td>
<td>66.2</td>
<td>80.6</td>
<td>41.8</td>
</tr>
<tr>
<td>Libya</td>
<td>19.1</td>
<td>15.9</td>
<td>165</td>
<td>Unavailable</td>
</tr>
</tbody>
</table>
Table 1. MENA countries’ connectivity profiles (2013).


The ITU report (Nov., 2014) identifies the UAE, Oman, and Qatar as the most dynamic countries in terms of improvements in their ICT development index. The ICT divide between the GCC and the rest of the Arab states suggest the greater readiness of the former to use and exploit big data than the latter. The wireless transfer of data from devices such as cameras or sensors enables the rapidity and efficiency of operations but is contingent on good connectivity and high-speed Internet.

The estimated value of the MENA region cloud market from 2014 to 2018 is $4.7 billion, with the business product growth rate approaching eight percent through 2018, according to both Gartner and Cisco (Chibber 2014). In 2014, the public cloud services market grew by 23 percent from 2013 with a market value of $629 million (up from $511 million in 2013). Cisco
estimates that MENA will possess the world’s highest cloud traffic rate by 2018 (moving up to 262 exabytes in 2018 from 31 exabytes in 2013) thanks to the high rates of mobile and smartphone ownership per user. According to Mckinsey Global Institute (2011), the Middle East is said to have stored more than 200 petabytes of data by 2010, compared to 250 in China, 400 in Japan and 2000 in Europe.

Companies see in technology investments the potential for business efficiency and performance. They find appealing both high Internet speed and high connectivity both at home and on the move as they enable a good online consumer experience and set good grounds to get in touch with a large pool of prospects and consumers. Social media in particular have enabled reaching out to a large number of prospects; for instance, more than 20 million users visit Facebook on a daily basis in the MENA region. Technology enthusiasts consider that thanks to big data, companies are well tooled to offer users targeted commercial offers, update them about relevant products, or offer them better services. Collecting information and analyzing users’ navigation habits, understanding online behavior, and predicting consumption patterns help marketers make informed decisions and improve their results. Big data not only provides information about these navigation habits but also ultimately helps improve private and public sectors’ targeting, decision-making and security initiatives, as GCC business leaders agree (Table 2 below).

<table>
<thead>
<tr>
<th>Big data gives rise to</th>
<th>Qatar (%)</th>
<th>Saudi Arabia (%)</th>
<th>UAE (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Better decision making</td>
<td>85</td>
<td>88</td>
<td>86</td>
</tr>
<tr>
<td>Competitive edge</td>
<td>44</td>
<td>57</td>
<td>45</td>
</tr>
<tr>
<td>Preventing, identifying cyber attacks</td>
<td>74</td>
<td>73</td>
<td>67</td>
</tr>
</tbody>
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Table 2. GCC business leaders’ perceptions of big data. Source: Schmarzo 2014.

There is, however, a struggle among CEOs and company leaders, some of whom recognize that they do not know how to collect big data (54 percent) or analyze and make sense of big data (85 percent; Schmarzo 2014).

A number of industries have shown interest in big data and increased their efficiency by using big data. The oil and gas industry, for instance, as will be discussed in the next section, reported accident reduction, more accurate anticipation of production levels and better rationalization when they adopted big data analytics. We also chose to discuss media and its business-related industries, such as ecommerce, because of the attention given to these sectors in recent years in the region and because of the anticipated growth in these sectors. This is also an industry where the discussions about big data are most prevalent.

Case studies

Big data in media business industries

In the context of media,

Big Data strategies can include audience analytics to enable a better understanding and targeting of customers; tools to understand public and private databases for journalistic storytelling; tools to manage and search the exploding amount of video, social media and other content; tools to target advertising, and ad campaigns; tools to automate the production of text and video stories, tools to identify waste and enable efficiencies; and much more. (Stone 2014:1)

With big data, media companies can engage the audience with better targeting of news, content and advertising. Data enables the production of targeted text, video, audio, infographics, advertising messages, promotions and all interactions pushed towards users. The World Economic Forum re-
port (2012) shows that marketing and sales are leading with regard to the usage of Web 2.0 tools; almost 80 percent of marketing functions use social networking tools. It is thus expected that big data would have an impact on the business of marketing.

There are about 4.5 million online buyers in the MENA region, mainly spread across Saudi Arabia, Egypt, Kuwait, and the UAE, which alone counts 3.6 million. Ecommerce is still considered young, as it represents only 0.4 percent of the regional retail market; its value is expected to grow to 1 percent, or $11.3 bn, by 2019, according to Euromonitor (Dudley 2014). The largest ecommerce market is Saudi Arabia, followed by the UAE, which accounts for about 20 percent ($387 million) of the region’s spending. Whereas Saudi Arabia’s population size drives its growth, the UAE growth is driven by per capita spending and mobile shopping adoption. In 2013, Saudi Arabia ecommerce valued $504 million, a quarter of all money spent online. The increasing smartphone penetration rates are expected to propel ecommerce in the region.

The rich profusion of data is threatening and disturbing. Businesses know they can have access to a tremendous quantity of raw data, but they get value only from analyzed and processed information. Only meaningful data can inform brands and businesses about purchase behavior, credit card payments, web searches and mobile usage. For marketers and advertisers, big data enables understanding consumer behavioral patterns but most importantly predicting users’ behaviors. It also helps communicate brand messages based on locations, interests, browsing habits and demographics, among other things. Telecom operator Du, for example, launched Smart Insights, a technology that tracks people’s movement throughout the city of Dubai on their smartphones. The data is meant to be of use to retailers interested in mobility patterns to attract and target consumers and prospects (Communicate 2015).

Companies are also collecting information about audience responses, such as comments on brands, likes and other sentiment analyses, made possible by algorithms and brand neuroscience. Brand stories can be tweaked and adjusted to consumers’ response dynamically and in real time. Thousands of variations of an ad are currently possible in digital marketing. Karine Barakat, a Dubai-based advertiser explains,
Data makes us smarter as advertisers. It allows us to reach our consumers more effectively and tells us the best context to deliver a message. This automatically increases the level of engagement with our core audiences. (...) Today we have more precise and factual insights (...). We think more of real-time/agile solutions, as we understand the evolution of behavior in specific time, occasion and circumstances. (Gulf Marketing Review 2014:34)

Omnicom Media Group has experimented with simulations in their planning system to predict consumer behavior. For instance, Annalect Group MENA says they have modeled diffusion of word of mouth into society in the UAE and predicted its impact on brand awareness. Another initiative is to predict the effectiveness of interactions across social media and paid media to understand the social multiplier effect (Gulf Marketing Review 2014).

Data brokers and “third-party” data collectors sell users’ online navigation patterns to companies. Users leave traces of their demographics and psychographics on social media and other websites or applications that require subscriptions and sign ups. Data specialist firms compile the information collected across multiple user devices and pack them in sellable formats to brands and companies that repack their offerings and tailor their messages to the most lucrative targets.

Some financial institutions have started building marketing data literacy skills and creating a data-driven culture. In Qatar, Al-Rayyan Bank, for instance, is training its end users on business reports to obtain maximum benefits. Key performance indicators (hereinafter KPIs) have been set for all the teams, department, products and branches, according to our source, Al-Rayyan Management Information System Analyst. Different kinds of KPIs for different kinds of customers help identify loyal customers and engage them for further product penetration. Big data analytics help identify loyal customers, find “influencers” among those loyal customers, and engage these influencers with exclusive events and opportunities. The same source says that big data is also used to maximize customer lifetime value and to drive growth. Internal business intelligence and analytics community and competency centers ensure a higher return on investment (ROI) from technology investment, as knowledge sharing becomes a corporate practice across the
Users interaction in blogs and social media, transactional data, foot traffic, as well as online searches and activities enable banks business intelligence units to identify the correct information, reduce profiling errors and hence make a tailored business decision to satisfy clients’ needs. Using text mining and analyzing feedback to enhance the customer experience are possible thanks to information gathering and treatment, which help improve retail banking operations throughout branches and different channels. Some argue that the Internet of things will become the largest application of big data. Everyday objects will learn users’ habits, send predictions, make personalized recommendations and add value in users’ experiences with brands and products (Campaign Middle East 2016).

**Big data in the oil and gas industry**

The Middle East is known as the world’s largest oil-producing region and top oil exporter. Despite problems in Syria and Iran that have impacted production levels, the Middle East has maintained this top position. The natural gas production grew by almost 5 percent, the fastest growth worldwide, driven by growth in Qatar, which has remained the largest gas exporter. The UAE, however, reached the highest record in oil production in 2013, with 3.6, right ahead of Iraq, with 3.1 Million of Barrels per Day.

In the Middle East, big data and analytics are driving business investments in the oil and gas sector, particularly in business intelligence (AMEinfo 2014). Big data today is said to have the potential not only to improve the productivity of oil and gas but also to reduce security threats on several levels, as will be discussed below.

Investing in real-data analysis in the oil and gas sector can have several benefits. An IBM oil and gas IT survey reports that more than seven out of ten executives believe that big data analysis can improve production technology, six out of ten agree that it can impact seismic/data reservoir modeling, 50 percent find improvements in integrated operations, and 35 percent observe improvements in business process management (Salisbury 2012).

The oil and gas sector is very sensitive to time, and there is a need for remote
surveillance asset and plant management, process monitoring, safety and security, and real-time monitoring. Shell, for instance, is using big data to predict the success of the drilling operations and to be informed about the how much is left in the wells. Through HP fiber cables installed in the wells, Shell collects real-time big data that is useful and accessible to technicians in the field. Big data is stored on the Amazon virtual private cloud; it is analyzed and made understandable by partners from IBM and DreamWorks Hollywood in charge of data visualization. According to a Shell source,

all data that is received from the seismic sensors are analyzed by the artificial intelligence developed by Shell and rendered in 3D and 4D maps of the oil reservoirs. Although the analyses are done in the cloud, the visualizations are immediately available to the crew working at the local factory. (Oil Review Middle East 2014)

To increase the efficiency and reliability of the data, older mechanisms that check monitors individually are replaced by Ethernet systems that offer real-time monitoring and control. However, more data does not necessarily mean higher efficiency or performance. The more data one collects, the greater the need to manage it and understand it, and the more difficult the analysis. Collecting the right data is more important than collecting big data; having the right data that is big enough to be treated and analyzed is the most useful.

Exploring and understanding the subsurface is one of the greatest need for oil and gas companies, which explains their dire interest in collecting more and more various data frequently and in real time. “[A]dvances in instrumentation, process automation and collaboration are increasing data volumes even faster. This is where data analytic firms can come in to help disseminate information and identify added value” (AMEinfo 2014).

Experts warn, however, not to focus on technology but to focus on the value proposition that can be created. This value is not exclusive to one operator; rather, it can be shared by a group of companies, which creates more synergy between oil and gas industry players with regard to information sharing, discovery and business impact models.

The ICT spending of big oil companies was estimated to be about $35.4 billion in 2010 (about 1.4 percent of their annual revenue) and about $50.6
billion in 2013 (Salisbury 2012). The majority of spending is for wireless technologies. The Shah Gas Project, for instance, is developed in Abu Dhabi by Al-Hosn Gas, a joint venture of Abu Dhabi National Oil company (Adnoc) and the US’s Occident Petroleum. The project produces sour gas and granulated sulfur to be transported either through pipelines or through rail, which increases the risk factor and necessitates real-time monitoring enabled by wireless technology. Salisbury explains some ways big data improves safety in the working environment of oil and gas plants, reduces downtime and increases productivity,

Al-Husn Gas understands wireless is moving beyond transmission network. We will have site-wide infrastructure (...) that includes wireless personal gas detectors, which tells the operators how much gas people are being exposed to and where people are at any given moment. Staff has wireless handheld devices that show all the relevant data in real time. Rescue teams can see people they are looking for. They are also deploying small, handheld video cameras for trouble-shooting in critical areas of the plant. (Salisbury 2012: 28)

This combination of big data and smart data in the oil and gas industry enables industry players in the MENA region to improve their management and make well-informed, data-based decisions.

**Big data: opportunities and challenges for the MENA region**

As the previous sections suggest, variations in information and communication technology diffusions across the MENA region have varied levels of development in this sector. As benchmarked against regional and global indicators, the GCC states remain at the forefront of ICT development in terms of infrastructure advancement, Internet accessibility rates and mobile telephony usage. The launch of e-government and, later, smart services in countries such as the United Arab Emirates has induced substantive investments in the e-sector to cope with government-initiated strategies to digitize and virtualize services. The big data sector has been most positively affected by those developments, with rising investments in data storage, cloud computing and analytics. Over the past few years, Dubai has played host to a number of international big data discussions that addressed numerous aspects of this sector and its relevance for the region1. According to
Frost and Sullivan, the GCC’s big data market is set to grow nearly five-fold from USD 135.7 million in 2013 to USD 635.5 million in 2020 (Cherrayil 2014).

Big data and analytics are also drawing investment in the region. According to IDC reports (2013), most of the activity to date has been focused on business intelligence (BI), with 35 percent of Middle Eastern Chief Investment Officers (CIOs) having invested in BI in 2013 and 41 percent scoping for 2013. Only 11 percent invested in 2012. Some analysts believe that the market has reached a turning point, as vendors and enterprises work closely on education regarding big data and its benefits (Enzer 2013). To enhance the region’s big data readiness, two types of skills are needed: Hadoop technical skills and data scientists. The data scientist role is still evolving, requiring a mix of skills and business awareness. Data scientists working in analytics need a variety of skills across multiple domains, including computer science, mathematics, data mining, and business analytics, to rapidly explore and discover insights in data.

**Opportunities**

The deployment of big data technologies and techniques in the MENA region is likely to bring about a host of opportunities across the different socio-economic and cultural sectors. Those opportunities, of course, are highly contingent on users’ access to online resources and mobile facilities. These may include the following:

**Education**

Data generated from institutional communications, social media conversations, search engines, website browses, and mobile phones may be analyzed for trends and patterns relating to knowledge priorities, socio-demographic group engagement and geographical participation. Such data can be efficiently harnessed to develop strategies and policies relating to Arabic language usage in learning in a context of an increasingly Westernized curriculum in GCC education, the most demanded topics of learning in the community, alphabetical and IT literacy and how to prioritize social and economic needs based on existing patterns. Picciano (2012) notes that in American education, big data and analytics for instruction are in their infancy. In the GCC countries and the MENA region, access to educa-
tional institutions is still problematic, and degree completion is a challenge for boys who prefer to leave school for work and financially support their families. This is an increasingly serious problem for the region. The UAE, for instance, has reviewed its policies about the school-leaving age, which was changed in 2012 from 14 years old to 18 years. Distance learning is also struggling to pick up due to weak government support for online education. As noted in consecutive UN Knowledge Reports about the region, there is a serious deficiency in knowledge about education in terms of inputs, outputs, use of technologies, engagement with virtual space and relationships with socio-economic development (MBRF and UNDP 2009).

Cultural development

The MENA region is rich in culture and history, and developing a sense of cultural identity in the age of globalization has always been a priority. The issue has been repeatedly debated in the past two decades, with clashing arguments centering on both religious and nationalistic issues. However, in the past decade, growing conflicts in the region have also given rise to new identities based on sectarian, tribal and ethnic affiliations. Virtual space has always buzzed with ideas and discussions relating to national and cultural identities in the MENA region. Data from social media conversations, blogs, and mobile telephones could be used to make strategic conclusions about where MENA region societies are heading with regard to defining its identity. Big data analytics could also be useful in monitoring identity-based tensions and pre-empting their explosion into full-scale conflicts. They could be helpful in setting the parameters of social and cultural policies relating to this issue and how it has to be expressed in private and public platforms. On the other hand, countries in the region – and, more particularly, those of the GCC – have to set the ground for discussions about diversity and multiculturalism. Concerns about freedom of expression, privacy and monitoring could be drawbacks to the benefit and full value of big data. Furthermore, as Crawford, Miltner, and Gray (2014) argue, big data are not repositories of data sets; they require active interpretation of researchers who may have different ways of seeing things. Andrejevic (2014) notes a major divide between users and data and argues that the value of big data is not only in access, technologies or infrastructure but also strongly linked to the capacity of analyzing it and making use of it; this remains in the hands of only a powerful few.
Aside from this, the MENA region cannot take advantage of the full advantage of cultural datasets with a mindset that may lack openness towards diversity, understanding and respect for others, regardless of ethnic origin, religions or beliefs. For people to participate openly in public forums while being aware that data is monitored, the policies of online participation have to be revised and encourage civic participation. Currently, the cyber laws in the region are quite restrictive and may lead citizens to be wary of anything they say and eventually practice self-censorship. Civic education along with democratization of big data could be an opportunity for cultural development change in the region.

Financial and Economic Development

As discussed in the media business section, audience measurement is currently the most prevalent application of big data. In addition to tracking online interactions and trying to predict consumers’ journeys, there are new attempts to distribute commercial or content messages programmatically. Data captured from organizational communications, social media platforms, Internet contents, media flows and satellite exchanges could represent significant indicators of mega-trends in national and transnational economic and financial systems. Data analytics regarding national and international money transactions, sales, acquisitions, taxes, pensions, spending, travels, investments, loans, financial stock shares, etcetera are of significant value for strategic economic policy making. In sectors such as oil and gas, agriculture, manufacturing, healthcare, trade and tourism, a huge amount of data can be analyzed for patterns and correlations relating to growth, legal compliance (especially in copyright issues) and risks. In the oil sector, executives expect that big data analytics would create new business opportunities and generate additional revenue streams. They also predict that failure to use big data analytics would make them lose their market position in the next one to three years. All of these sectors would greatly benefit from analytics in handling issues such as investments, development, partnerships, recruitment, service delivery and growth.

Government services

In the MENA region, the state remains a leading force of economic progress and social welfare. Data analytics would be helpful for governments as they seek to deliver services to the public in different realms. As noted
in the previous sections, variations in technological diffusion and policies across the region have given rise to different levels of service delivery. While the majority of Arab countries continue to deliver services and perform transactions in traditional, paper-based ways, countries such as the United Arab Emirates have taken leading strides in shifting their service delivery operations to cyberspace. Dubai has been at the forefront of this change with its e-government and smart-government transition into virtual space to handle all types of paperless transactions. In countries where online services are delivered, analytics from data streams originating in social media, websites, blogs, news portals and mobile communications could be highly useful in enhancing the quality and efficiency of those services.

Dubai Smart City (hereinafter DSC) is an outstanding example of how governments in the region could unlock the potential of big data to enhance their services. Launched in 2014, DSC facilitates the transformation of 1000 Dubai government services into smart transactions centering on the mobile telephone in 2014-16. The project features six key pillars and 100 initiatives on transportation, communications, infrastructure, electricity, economic services, and urban planning. The strategic plan draws on three basic concepts – communication, integration and collaboration – that enhance communication between the city’s residents and its institutions and facilities through convenient access to and sharing of data about the city (Emirates 24/7 2014). The plan also includes the development of smart and personal boards containing all information and data about the city of Dubai in one platform to enable individuals to communicate with various institutions and facilities in Dubai. The Dubai Electronic board has been made available to decision-makers to ensure sound decisions are made on the different service sectors falling under their jurisdiction. While this initiative is worth celebrating, it is important to examine its applicability because of the privacy, democratization and monitoring issues discussed above. Questions to examine are in line with concerns regarding corporations’ and public services’ access to and interpretation of the data collected. Ideally, the data collected and analyzed by the smart city helps improve predictive models of services at different levels and is not exclusive to the government but could reach a democratization stage (Boyd and Crawford 2014) to the point that users also have access to this data for the benefit of various sectors and groups of populations.
Challenges

It is clear that as much as big data brings about huge opportunities for socio-economic and cultural development to societies in the MENA region, it also presents the following challenges.

Cultural

Big data is still a novelty in the MENA region. And to harness its potential for socio-economic and cultural development, a new mindset conducive to the adoption of this technology in the different sectors seems indispensable. Many private and government organizations in the region continue to base their decisions on conventional information gathering and analysis methods that fail to capture the full picture of change. Since the deployment of big data systems require hefty investments, government and corporate leaders and decision-makers should possess a good sense of understanding and appreciation of what big data is about and how it could contribute to social and economic development. Accordingly, we call for big data literacy and education to be offered to users and citizens in order to raise awareness about the extent to which their quotidian communications and transactions could be used in the context of data collection and analysis. This education is meant not only to raise awareness about citizens’ contribution to the new era of big data from a protective perspective but also to stress the advantages and benefits of their mundane transactions and communications. An ethical approach would also watch for a culture where users are given the choice to opt out to protect their privacy.

Human resources

Big data is not only about understanding data at the decision-maker level but also about preparing a new generation of specialists in this field who are able to handle datasets in different organizational contexts. Big data specialists should possess the intellectual and technical competencies to be able to pinpoint issues relevant to the organization and to operationalize their analysis. A sound conceptualization of issues to be addressed in analytics is central to the conceptualization of their operational components and indicators in the Big Data context. This assignment requires a combination of talent and expertise in social research, software development
and quantitative analysis. The Gulf States should invest in educating and training a workforce for this field in order not to be constrained to hire Western and other expatriate skills, as is currently the case in most services, particularly in the media business-related industries. Because an important aspect of big data is analysis, which is subject to reading and interpretation, specialists should be wary of cultural contexts and sensibilities. This is increasingly important, as the web in the region is increasingly Arabic. Social media reports show that interactions among users are increasingly trending towards Arabic (with 48 percent in English and 45 percent in Arabic), and it is predicted that Arabic will be the leading language in the next five years. The language barrier could be a predicament for big data handling if not addressed early enough.

*Infrastructure development*

Without an information and communications infrastructure, big data would be rendered useless for handling different assignments in analytics. A highly developed communications infrastructure would serve as launching pad for data streams to be captured, stored and analyzed by big data staff (McKinsey Global Institute 2011). In the Arab World, except the GCC countries, the ITC infrastructure, as noted previously, continues to suffer major problems related to levels of diffusion, accessibility, censorship and costs. The main implication of an underdeveloped ICT infrastructure is that data steams captured for analysis do not reflect the full range of inputs across populations as they are limited to rich segments or urban dwellers. Analytics generated would tend to be biased and thus lack credibility in the final analysis.

An example of this is the ecommerce development in the region. As discussed earlier, although governments are pushing for investing in ecommerce businesses, the infrastructure does not enable all strata of the population to take advantage of ecommerce equally. Not only does ICT infrastructure suffer a digital divide among countries and even within the same country at times, but banking policies and regulations are handicaps to ecommerce development and are, at times, made accessible only to elite groups. This is the case, for instance, with credit card facilities, language barriers or technological barriers.
Regulation

Big data brings with it a whole set of practices with profound security, social and ethical implications that have to be accounted for in any regulatory regime. Regulations should address issues relating to data sharing, privacy, transparency, access and usage. In the GCC, Qatar has issued a data protection law to respond to concerns of security. Qatari law N13 of 2016 protects consumers in an increasingly threatening online environment and ensures that they have confidence about their personal data protection when completing transactions online or processing data electronically. Data protection in other GCC countries, including the United Arab Emirates, is regulated under the constitution, in Article 31, which provides for UAE citizens’ rights to privacy. As the majority of the UAE population comprises expatriates, protection under such a regulatory frame does not extend to non-nationals. However, the cybercrime law and provisions are the closest regulation in the legislation to data protection for residents and citizens alike. In the UAE, cybercrime Law N5 of 2012 protects individuals from invasion of privacy and disclosure of confidential information obtained in the work context. Other specific regulations include the Telecommunications Law (2003) and the Privacy of Consumer Information Policy (2005), both of which have provisions for consumers’ interest (individual or family privacy) but are not specific to data processing.

Big data should not be looked at exclusively from a technical perspective about data storage or compression. Ethical concerns haunt the development and adoption of big data across the world, and the Gulf region is no exception. Participation in the data project is the responsibility of all citizens, according to Crawford, Miltner, and Gray (2014), and collectively, users can monitor big data to make sure that it is not hindering human progress but enabling innovation in a trustful and ethical environment.

Concluding remarks

Big data is not a technology fad but a strategic key feature of human development for decades to come, granted that it observes ethics and human rights. Our increased ability to capture data sets of all types and generate a wide range of insights that inform strategic government and business decisions is a huge empowering force for societies around the world, including
those in the MENA region. The article has noted a rising interest within countries in the region, especially in the Gulf region, to harness big data in social and economic development through the integration of new data-capturing and data-processing technologies in their government service and business sectors. The prime adopters of big data systems in the Gulf region have been government service providers and media business sectors. The E-government and Smart Dubai initiatives in the UAE have been outstanding examples of government deployment of data analytics in the service sectors. Bahrain is another leading example for openly sharing datasets of public expenditures, demographics and data on cities for their citizens.

We found evidence that big data offers excellent opportunities for the MENA region to enhance its service and business sectors by enabling more informed decisions in education, social services, business operations and cultural development. On the other hand, we noticed that although some headway has been made in the GCC region’s engagement with big data technologies, some challenges have yet to be addressed. These include building proper mindsets to understand the dynamics of big data in government and corporate contexts, the preparation of well-qualified human resources who are able to handle technical and intellectual big data requirements, the establishment of reliable infrastructures necessary for streamlined functions, and the initiation of appropriate regulatory frameworks relating to data privacy, copyright and access.

A bigger conversation about big data at the MENA-region level that should occur is about the ‘Big Data divide’ (Andrejevic 2014). This discussion is by no means an extension of the digital divide conversation, which remains limited around issues of ICT infrastructure and connectivity or broadband connectivity rates; all MENA countries are now mobile or smartphone connected, and the majority of them are intense social media users. The socio-democratic impact of social media usage was not negligible by the time of the Arab uprisings, and clearly, the countries in the region are inter-related socially, culturally and economically, more than one might think. A larger and more inclusive discussion on big data at a regional level is worth having for a more cohesive development in the long run.

The concerns that have been raised about big data adoption with regard to security, ethics and privacy are not reflected in the press of the region.
Threats raised by Snowden about exposure of emails, text messaging, social media, geo-locations and targeting do not seem to weigh equally with the glorious value creation from big data. The big data conversations are deterministic and emphasize the cost efficiency of big data adoption and analysis (Crawford, Miltner, and Gray 2014).

This paper admits its methodological limitations. The cases studied are only a snapshot of some current applications, and they are not meant to be representative. We interviewed professionals in the areas explored; however, we were surprised at how little the informants know about big data usage and their companies’ plans in collecting and processing data. Despite this challenge, we hope this article opens up a larger Arab big data conversation among academics and professionals.

References


Notes

1 Those include the 2014 GITEX Big Data conference, IDC Big Data and Business Analytics Roundtable (2014), the Teradata Universe Conference (2014) and IDC Big Data and Business Analytics Forum (2013); and Smart Data Summit, Dubai, 2014 and 2016. Kuwait also hosts the annual Middle East Cloud and Big Data Conference and Exhibition.
Transnational Religious Practices on Facebook

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Abstract:
Access to cyberspace by Yezidi populations has given this group a platform for rebuilding their religious identity, which, in turn, has enabled them to challenge existing geographic, political and cultural constraints in Iraq. The Yezidi in Iraq have to live with the threat of discrimination and even violence. On the Internet, self-identification as Yezidi is done much more freely. The rise of the Yezidi in Iraqi media and in foreign media (via the diaspora) is closely interconnected. Experiences of persecution and of persistent libel and prejudice by the Muslim majority has forced the Yezidi to adopt distinctive religious practices due to forced migration to foreign countries. This article is an exploration of whether notions of sacred spaces and perceptions and practices of religious rituals are transformed in digital media, i.e. when moving from physical to virtual spaces. I will do this by applying visualization through visual imagery and virtual ethnography. This paper represents a theory on the Internet and religion: asking what implications the Internet holds for spiritual identities, worship and sense of ethno-religious community.

Keywords:
study of religion, ethnography, Iraq, cultural studies, Yezidi, social media

Introduction

Yezidi are a small ethno-religious group of approximately five hundred thousand persons around the world. They constitute a minority in a dual meaning. First, as Kurds, they represent an often-persecuted ethnic minority within their countries of origin; second, as followers of the Yezidi religion they are a religious minority within the Muslim majority, having often been denounced as ‘devil-worshippers’ (Klaus 1967:329). Additionally, about five thousand Yezidi live in northern Syria, mostly in the area around Aleppo. Many of the approximately ten thousand Yezidi of eastern Turkey were, by the second half of the twentieth century, living in small, poor villages surrounded by hostile neighbors. They were often reduced to practicing secretly their religious and cultural rituals.
The Yezidi are geographically dispersed across several areas of Kurdistan. The largest Yezidi communities are currently found in the Duhok, Mosul and Sinjar areas of northern Iraq. In the Ottoman Empire, Yezidi had great influence in Kurdish tribal confederations. Successive persecutions have reduced their numbers and driven waves of immigrants into the Caucasus, where they played a notable role in the republics of Armenia and Georgia. In these locations, they currently number around forty thousand (Kizilhan 1997). It seems, however, that recent nationalist movements in Georgia have made the situation difficult for the Yezidi. As a result, more and more people from Georgia, in particular, with Yezidi heritage seek asylum in Germany.

A number of Yezidi moved to Europe during the 1980s: mainly to Germany. The present troubled situation in northern Iraq has prompted many prominent members of the community there to follow them to Germany. It is assumed that about thirty thousand Yezidi currently live in Germany (Ackermann 2004:156; Gökçen 2010:423).

Schiller, Basch and Blanc (1995:7), when defining Transnationalism, stated that

Many immigrants today build social fields that cross geographic, cultural and political borders. Immigrants who develop and maintain multiple relationships – familiar, economic, social, organizational, religious and political – that span borders we call Trans-migrants.

Levitt (2001:6): “[T]ransnational religious practices also involve the transformation of identity, community and ritual practices.” Yezidi use of Facebook in different countries is illustrative of the fact that cyberspace is a virtual space that is used for connections among individuals who are otherwise diasporic and transnational. Facebook research corroborates the idea that online identity helps build group solidarity; especially for the Yezidi minority. The Internet could be a starting point for the Yezidi community’s becoming transnational. Transnational connections consist of actual flows of people and information across national boundaries. So far, the term transnational has not been used in the discussion of the Yezidi diaspora, as it did not appear to apply. Indeed, it is clear that this definition may be relevant only to the present situation of the German Yezidi community; and this in
a very limited sense. They are relatively confined in their ability not to be transnational, mostly because of the situation in their separate countries of origin. There is not much information regarding the Yezidi in other parts of Europe and elsewhere (Ackerman 2004:165). Visual practice may not only encourage the Yezidi to provide images, but also allow them to integrate with their own personal meanings and interpretations. It provides the Yezidi minority the opportunity to enter into a whole new set of relationships that can be close or faraway: yet all inherently interactive. Cyberspace broadens the social base of religious life, reducing the need to be physically present in the location of a temple in order to worship. This is especially important for the Yezidi in diaspora. The Internet creates space for solidarity among individuals that are far away from home and are not able to gather together in their homeland for political reasons. It also provides sanctuary for those individuals who did not previously have the freedom to talk about their rituals openly.

Yezidi Facebook pages allow for increasingly communicative relationships between people. Since the great majority of displaced Yezidi live in Germany, most of the material hosted on Yezidi Facebook pages refers to that country. In general, the pages represent the Yezidi as a cultural or religious tradition that is tightly attached to the spatial, historical and cultural context of Iraq. Many pages for both individuals and organizations introduce the Yezidi people and provide basic information. Some pages contain images: most often of the Sinjar attack in 2014 (Ahram 2015:57). Most of these pages first refer to Lalish, a small village in a mountain valley situated in the Sheykhan District of the Dohuk Province in northern Iraq. This is a central location for reminiscing about religion and rituals.

The Yezidi group uses Facebook to introduce their religion, as an independent one, to the international community. They try to use Facebook to help with digital leverage (via online appeals), protest campaigns and risk awareness. They seek to structure support for their objectives. The rising presence of the Yezidi community on Facebook has become a new context for social interaction; demonstrating an opportunity on digital media. By visually expressing beliefs through pictures of their sacred shrines and symbols, this helps to manufacture their online cultural status. This paper represents a step towards a theory on the Internet and religion, Specifically, I will investigate three questions regarding the Internet and the Yezidi reli-
gion: firstly, how has the Internet changed religious practices for the Yezidi and their sense of religious community? How does the Internet provide a feeling of spirituality and solidarity for the Yezidi? They can worship online and therefore individuals in diaspora can feel a sense of community. Online religion allows believers to take part in religious life when located in different geographical spaces; as a result, ritual activities can be carried out in non-traditional spaces. The Virtual Temple can be viewed as a representation of the physical temple and can play a similar role to domestic shrines. In this way, Facebook pages can be considered successful in that they fulfill the main intent of their designers. The Internet is a medium that can go beyond both spatial and provisional boundaries. This paper will examine online visualizations of Yezidi sacred symbols such as the Lalish as a main Temple and Yezidi shrines or the peacock which, in Yezidi tradition, is the true creator and ruler of the universe and therefore a part of their religious practice.

Materialized beliefs: Material culture and anthropological perspective

The peacock has been one of the traditional, religious symbols of Yezidi culture for thousands of years. I describe the peacock from a material culture perspective, combining religious, cultural and material elements. Analyzing and interpreting images and the ways of seeing particular material, in light of current literature, point to the merging of themes such as media and religion in recent years on Facebook. It will contribute, specifically, to the way materials are perceived in spiritual contexts: such as ritual, healing and belief. The peacock is an essential part of traditional healing in the Yezidi religion. In spite of current and future interest in material culture (Skuse 2005; Poulter 2011; Douny 2011), there is a lack of research dealing directly with the peacock as a religious symbol.

Early on, the field of anthropology accepted material culture. Ethnographers in the beginnings of modern anthropology applied material relics to investigate better a culture’s morality. Franz Boas was one of the first to discover material objects’ complex properties. In Boas’ view, objects are not always actionable, giving them the capacity to give pleasure to their owners (Ventura et al. 2014:33).
Appadurai remarked:

We have to follow the things, because their meanings are subscribed in their uses, forms and trajectories. It is only through the analysis of these trajectories that we can interpret the transactions and human calculus that make things alive. This way, although from a theoretical perspective the actors codified the meaning of the things, the things-in-movement are the ones that illuminate the social and human context from a methodological perspective. (Appadurai 1988:19)

When learning about material containing religious, magical and ritual relics, we thus have to explain its diverse socio-cultural components (Venturra et al. 2014:36) and the outlook of the biography of objects (Appadurai 1988). The target of this outlook points to the making of a wider description of reality that can rehabilitate the communal perspective of the structure of description: through discussion and other processes. This rehabilitation can be observed through social practices, including the interplay between representations that the individuals and collectives deploy to achieve their specific interests (Bourdieu 1977; Ortner 1984). In the current reality, material objects testify not only to society’s technological capacity, but also to its application of materials, ethics and norms (Dan 1999). However, in this early phase, objects represent their material being, rather than any concealed theoretical intuition and ideas (Miller 1987).

Material culture is a feature of visual studies. Paying attention to the depictions that are important in people’s daily lives opens up a discussion about principles and desires. As David Morgan (1999) contends, the definition of an image is not only the act of viewing it on a wall, but also surviving in its presence and its relationship to flow in the owner’s life. Phillip Vannini (2009) attempted to explain the facility and typical personality of interactions between humans and material objects. Objects are meaningful in their practical use; the material world can be perceived as technology and culture: interconnection between social factors and material objects (Vannini 2009:18–23). Employing Daniel Miller’s (2005) concept of materiality explains how the Yezidi minority group on Facebook uses visual materiality to express themselves. He defines materiality through the photographic processes of objectification, where the materiality of things is a significant and important feature. This can reveal much about how people think. Particu-
larly, we often overlook routine materiality, since our subjective worlds insist on a “pluralism” of material ties. In the relationship between materiality and immateriality, Miller (2005:18-23) has opined that objects represent people.

Research background

James Carey proposed that a connection is composed of two basic perspectives that continue to exist in relationship to one another. For example, sharing details and the ritualistic ties of communion: both emerge from a religious background. Communication is a figurative process where fact is manufactured, preserved, reformed and changed. For Carey, the ritual vision of communion is obtained from a religious imagination that occurs in the form of speech, order and attention and as an alternative. He points out slight activities that show progress in daily procedures, enjoyment, song and prayer (Carey 1989:13-36). Cobb (1998:97) describes cyberspace as a spiritual network that can help humanity’s spiritual improvement and defines the Internet as a medium through which we can experience the elegance of humanity’s journey toward greater spiritual progress. “Media treatments of religion can be seen as a kind of indicator of the broader role and status of religion on the contemporary scene,” notes Hoover (1998:12). The Internet is a space that allows its members to grow in spirituality and belief, to convert and carry out religious duties around the world, and to carry out diverse religious and empirical everyday processes. The Larsen 2000 study indicates that 83 percent of its respondents felt that a selection of websites helped congregational life either by a certain amount or a great deal. Meanwhile, 81 percent accepted that email, on some level, assists the spiritual life of the group. Media are not simply channels for conveying information between two or more environments, but rather they are environments in and of themselves. In this context, religions themselves can be viewed as systems of communication, designed to facilitate and control the exchange of information between the mundane world and the realm of the sacred (Casey 2001:35). Religion and spirituality online are emerging as global phenomena, while the Internet itself is emerging as a medium that transcends spatial and temporal boundaries (Casey 2001:33). The World Wide Web was conceived as a parallel to geographical space (Tække 2002).

Brasher (2004) discusses how likely the conversion from temple to screen is, a following root or context shift, and a resulting reclamation of the religious
contention itself. The term cyberspace is widely used to show a place (space) for real and possible computer-based activity. This is done in a way that is similar to the idea of geographical space as a void for actual and potential physical activity. Sacred places found in geographical space are often identified by particular signifiers: such as architectural style, use of images and envisaged protocols for conduct. This idea may help guide the question of whether virtual signifiers can operate in a comparable fashion; thus delineating sacred cyberspace from non-religious cyberspace (Jacobs 2007:1105). The latter perspective relates to how the diffusion of personal faith stories through digital technology can give rise to a wider variety of articulations of religious identities: such as stories of women, gay people and other groups whose voices have been trivialized in religious communities throughout history (Lövheim 2012:163). Stout observed that “some people...contend that entertainment is not only compatible with religion, but actually promotes faith” (2012:87). Midden and Ponzanesi (2013:97), in research about the online practice of Muslim women, show that faith and religious practices are important to Muslims: both for those that are emancipated and submissive. Thus, the Internet has been framed as a technological landscape, able to transform religious expression and understanding (Campbell 2011:16). It can be asserted that many people employ technologies, such as the Internet, to develop and strengthen their religious individuality (Campbell 2011:16). This is further supported by Christopher Helland’s 2007 work, which shows that members of Hindu and Buddhist religious traditions actively use the Internet to develop connections between their diaspora communities, their places of origin and their sacred sites.

Peggy Levitt explained that “while there is a rich body of work on immigrant incorporation, most of this research does not shed sufficient light on how continued relations between home and host-country institutions transform religious practice” (Levitt 1998:75). Levitt (1998:27) emphasized that these transformations affect religious practice in both the countries of origin and those of residence. Indeed, new technologies such as social media are now having a considerable impact on transnational religious organizations and activities, as well as individuals. The concept of networked religion, which becomes visible in online debates about traditional religion, displays how contemporary religious narratives and practices are able to become more pliable, and transnational, as they reside both online and offline in an information- and technologically-enabled society (Campbell 2011:21).
Methodology

In this research, we aim to analyze the role that visual images in media can play in studying other people as sensory experiences and the roles of the visual research method as well as vision in ethnographic research. Visual sensory data that reference online images was analyzed through discourse analysis. Data was collected from five Facebook pages and through personal narratives expressed by people, through discursive analysis and interviews with Yezidi persons of different ages and sexes. Mostly, I found these individuals through my previous friendships with them on Facebook from 2015-2016. To collect data, I relied on the methods of virtual ethnography for communicating with people in online communities, as well as chatting and online interviews. I shall reflect on the concept of using an advantageous point of view to examine other categories of sensory observation and practices related to them (Stoller 1997:23). Visual research methods employ images of society, and images made by society, to understand social situations better. Scholars using images usually work in the substructure of a qualitative, case study method. Since the 1860s, anthropologists have used photography to supply visual information about their subjects. Historically, photography was considered to document superficial data; as opposed to in-depth data, which needed to be unearthed by other methods (Edwards 1999:4). Harper writes,

Images allow us to make statements which cannot be made by words, and the world we see is saturated with sociological meaning. Thus, it does not seem peculiar to suggest that images enlarge our consciousness and the possibilities for our sociology. (Harper 1998:38)

Grimshaw (2001:42-45) remarks that ethnographers can be consumed by the sensual world. He shows that anthropological practice is a corporeal process that involves the ethnographer engaging not only with the ideas of others, but in learning about their understanding through her or his own physical and sensorial experiences, such as tastes.

Visual methodology, given the availability and contemporary enthusiasm for using media in ethnographic research, makes it a valid choice in this regard (Pink 2005). Pink, in carrying out sensory ethnography, explains that visual technologies and practices might support the work of a sensory ethnographer. These practices might be understood within a theory of eth-
nography as place-making. Several researchers already working with visual representations of data combine the understanding of their practice’s sensory nature in relation to visual ethnography (MacDougall 1998, 2005; Pink 2006). According to Pink, visual analysis should be considered “in the context in which the image is produced, the content of the image, the contexts in and subjectivities through which images are viewed and the materiality and agency of images” (2006:31). The material helps evoke the sensorial experience of the research encounter itself: such as texture and smells. “In ethnography, images are as inevitable as sounds, smells, textures and tastes, words or any other aspect of culture and society” (Pink 2006:21).

Grasseni’s 2004 work is a good example of how visual media might be used to understand embodied practices that are, by those who engage in them, couched in terms of visual knowledge. Grasseni stated that people who engage in social media are never detached from a certain amount of multi-sensoriality, which might explicitly or implicitly also involve evaluation through touch, smell and sound. Using audiovisual media, Grasseni was able to access, or attune to, the visual (multi-sensorial) practices of the people whom he was seeking to understand. In the author’s words, he learned to share an aesthetic code. Grasseni (2004:28) argued that in his research as a visual anthropologist, a broader sense of observation gives one a clearer understanding of symbols and principles. Visual culture stems from images, acts of seeing and associated intellectual, emotional and conceptual sensitivity to build, maintain or convert the worlds in which people live. The study of visual culture is the analysis and interpretation of images and ways of seeing the factors, practices, conceptualities and institutions that put images to work. Scholars make use of images as more delicate, stylistic means of explaining visual culture.

McClintock Fulkerson (2006:50) has established that taking photos can be one way, among others, of observing the use of customs in specific physical practices and the eternal interplay between figures’ communication and obvious dialogues. Talking about images gives the researcher a more concrete idea of the participant’s thoughts and beliefs so as to better understand their practice of religion.
Yezidi online activities

The growing presence of the Yezidi community on Facebook has become a new context for social interaction, demonstrating a visual opportunity in digital media. The Internet could also be a starting point for the Yezidi community’s efforts to become transnational. Technology that facilitates computer-mediated communication has not only affected the spread of information within the Yezidi community, but it also makes possible the presentation of similar information to a virtually unlimited, non-Yezidi audience (Ackermann 2004:166).

Yezidi are given a voice in the present study in order to shed light on their cultural situation. This approach is respectful toward the Yezidis’ religious and spiritual beliefs and practices. The Yezidi community can speak as personally or superficially as they choose regarding the images, thus allowing them to control how much personal religious information is shared. The collaborative approach that most contemporary visual methods employ suits a power-sharing approach to research. The visual enables the identification with personal, subjective themes within a lived religion. Society has moved from a textual culture to a compound, multi-faceted culture full of unmediated images. Since people are used to processing visual information, visual diffusions of research findings are made available to a wide range of people. Thus, visual methods also show a move away from the epistemological example of the sociology of religion. This is because signs and information can be used to demonstrate contact via images: even more so than through text alone (Harper 1998).

The study of material culture implies observing the visual landscape and artifacts of Yezidi society, their production, consumption and meaning. This includes photography, files and videos. Religious sacred images can reveal the use and understanding of visual images as ordered by socially-established symbolic codes, which can be assessed through discursive analysis and ethnographic methods. While the sociocultural aspects of the peacock, along with its projection onto beliefs are well discussed in expert literature, I wish to take a different path. It is my intention to focus on the different dimensions of visual religion and material culture in the context of religious material used by Yezidi in diaspora. In this article, I will highlight the complex connection between Yezidi material attributes and their cultural
meaning for the importance of material objects in Yezidi lives and beliefs. By using various viewpoints of material culture, visualization and religious healing, I will paint a broader, more complex depiction of this unique phenomenon.

Visual methods cross cognitive thought processes to capture the controversial, reactive, unconscious ways that people live out religion. The research in this article focuses on the participation of the Yezidi community in religious digital networks and the way in which such participation structures their religious practices and feelings. The aim is to understand the digital activities of the Yezidi and their participation in transnational religious networks.

Participation in the community is essential as is collecting data in a manner that takes into account the context of the community. This means trying to find a balance between the role of cause and effect, self-participation, individual cultural involvement and the structured, objectifying scientist (Kozinets 2010). This method helped me process a rich data source, including archival data from a website and field notes from researcher observations during the investigation. For offline data collection, I mainly relied on statements from interviewees. Interviews usually attempt to capture participants’ individual experience in order to understand the experience of other people in similar situations (Flick 2007:79).

I followed Bryman’s suggestion of “words rather numbers” (2004:266) and thus concentrated on what participants shared. I strived to understand them and paid attention to their words. The websites I analyzed are good examples of how access to media has increased immensely for minorities, allowing them to present and discuss news, experiences and issues related to their own communities: all this on their own terms. The sample for my case study consists of four German Facebook pages where Yezidi people discuss various aspects of their lives in connection to their religious affiliation. This involved pages such as Yezidi time, ياللهيا طاووس ملك [Yā god, Tāwūs Malik], Yazidi in Australia, Yazidi in Canada Lalish Baadre, Lalish TV, Tāwūs Malek The Peacock Angel; including posts, images, stories and videos. I decided to focus on prominent concepts such as “remembering the past” and “I became stronger in my beliefs,” but my research mostly focuses on “relief.” I also held interviews with the pages’ creators and selected respondents of various ages and educational backgrounds. In the interviews conducted for
the Facebook research, respondents talked extensively about how they use their beliefs about the Yezidi religion on Facebook.

Tāwūs Malek, the “Peacock Angel” or “Peacock King,” is the most important deity of the Yezidi. The Yezidi believe that theirs is the oldest religion on Earth, and that their customs are related to them through the Peacock Angel. They claim that Tāwūs Malek is the true creator and ruler of the universe: and therefore a part of all religious traditions. God created him as an expression at the beginning of time (Guest 1993:208-12; Kreyenbroek 1995:55-6). For the Yezidi, the most sacred place on Earth is located in northern Iraq. They say that here Tāwūs Malek was able to calm the Earth by covering it in his peacock colors.

Sheikh Adi was canonized as a deity by the Yezidi; he is remembered as the founder of the Yezidi religion and died at age 116. He occupies a place in the Holy Trinity: together with Tāwūs Malek and Yezidi. The links between the devil and the peacock date back to the pre-Islamic past, specifically in the account of the creation of the Peacock by Ahreman, which Eznik of Kolb attributes to a pre-Islamic Iranian sect (Zaehner 1955:438).

Spät (quoted in Kreyenbroek 1995, in Spät, 2009:74) remarks that the hymn of the faith depicts the role of Sheikh Adi as the creator of the world. While Sheikh Adi is the most important of all the khās, whose eventual identity with Tāwūs Malek and god is emphasized by many hymns. He is not the only one whose appearance in Yezidi history is interpreted as the earthly manifestation of the divine light.

A deeper analysis shows that while Tāwūs Malek “existed before all creatures,” he is not, in fact, the creator. Tāwūs Malek, being a manifestation of xwadē (the divine), claims quite legitimately. It is the prophetic mission of Tāwūs Malek that indicates to us that he is a manifestation of the demiurge, rather than the demiurge himself (Asatrian and Arakelova 2014:13; 2003:1-36).

In the so-called Book of Revelation (Jilwe), there is also reference to the symbolism of the peacock. They make valuable remarks on etymology; for instance, the connection between the peacock Tāwūs Malek and the Mesopotamian tammuz, and comments on the belief that this word in Greek
(ταως) is purportedly the root of the Arabic word tāwūs. The authors also refer to analogies to the mystic Simurgh bird and the role of the peacock in Sufism and related parables (e.g. in Attar’s *Conference of the Birds*). In fact, they venture much further and point to analogies in the Zoroastrian tradition and the association of the peacock with Ahriman and, in other traditions, with the devil. They emphasize that the image of the peacock contains both “divine and infernal attributes” (Asatrian and Arakelova 2014:26).

Observations indicate that the Yezidis’ main object of worship is not xwadē (god) but the Peacock Angel; they consider themselves his chosen people and speak of themselves as “the Peacock Angel's nation” (people of *Tāwūs Malek*). It is they who looked after him when he was thrown down from the heavens, and so he chose them to be his worshippers and gave them their laws (Rodziewicz 2016:160).

**Online religious symbols**

Imagine visiting a temple online rather than entering that same building physically, i.e. with it appealing to all of your senses. Facebook simply provides visitors with an image: perhaps one of Lalish.

In the interviews conducted on Yezidi online activity, respondents considered how religion affects all aspects of their life, including their online activities. Here, the Tāwūs Malek symbol presents its most minimal of functions: the strength of belief as demonstrated through the visual. The peacock image online, as a material object, is the connection between the faith healer and the patient; it is the material center of the ritualistic belief.

Facebook images also demonstrate the symbolic power of media content in shaping social and religious life for the Yezidi. After the ISIS attack in 2014 and the Yezidis’ forced migration to Germany increased the diaspora, thoughts, feelings and actions characterizing sacred forms were possible only through media that gave sacred forms material expressions. Media enables communication about, and interaction with, those forms. Such media include images and sounds, as well as material objects, spaces, institutional practices and places that employ or exemplify the sacred. The article focuses on how sacred forms are expressed among individuals through personal life stories online and on how this new expression of the sacred is packaged and shaped on Facebook.
Remembering the past

The Virtual Temple, similar to the real temple, clearly intends to facilitate a hermeneutic conversation between believer and website. One member suggested that the Virtual Temple is a place to visit if you have a particular prayer need. Another member visiting the Lalish Temple website indicated:

Figure 1. The Lalish shrine, the walls are covered with various colors. Each color represents one of the angels in the Yezidi religion (Yazidi Times Facebook group 2014).
An Yezidi Facebook user said

When I see personally (sic) a photo of Lalish temple, I get strange feelings because I don’t know what is happening to me. It’s the only place where I was happy and mentally relaxed, because of how holy the place is. Lalish also includes terrific nature, with trees and water fountains. It is also surrounded by mountains from all sides. It is considered one of the holiest places with Yezidi religion. Due to this I feel so much pain when I see it and I start to go through so many memories of my family and friends. I remember when we were meeting there to worship and realize our traditions and the beliefs of the Yezidi religion. I am here as a refugee and feel strange for what I mentioned and remembered about Lalish. (A, Hosseini, 6/6/2016)

For this group member, the Virtual Temple is a place that can be visited in a way that is analogous to visiting Lalish in the physical world. In particular, the Virtual Temple functions as a sanctuary from the trials and tribulations of the profane world.

Both the Virtual Temple and the real one draw on conventional signs of their respective traditions to construct sacred spaces. In both examples, there is a relationship between the virtual representation and the real world. However, if we accept Jones’s (2000) idea that sacred space must be understood in terms of the encounter with architectural forms, it is necessary to consider how virtual architectural designs perhaps simplify ritual encounters. The Virtual Temple makes use of designs to bring a feeling of understanding to the room; and of living in space. Ritual displays can be imagined in terms of this third aspect of the space: both the Virtual Temple and the real temple seek to make it possible to carry out rituals.

Kinney suggests that the “technical innovations on the Net are likely to encourage the development of new forms of ritual” (1995:763). The Yezidis’ visiting of the Virtual Temple clearly allows for the possibility of the performance of online rituals.

A crucial activity of religious organizations is the veneration of symbols, gods and saints, which is experienced differently in online worship. Worship-like phenomena are frequently promoted by the media (Hjarvard
2006:11). Hjarvard (2006:3) believed that, through the procedure of medi- atization, religion is even more arranged by the logic of the media in terms of institutional arrangement, symbolic content and individual practices. The metaphor of media as a channel draws attention to the fact that media transport symbols and messages across distances from senders to receivers.

Speaking about religion in terms of a personal search to find the “right meaning” can be difficult, but these ideas can be expressed through interacting with images. Visual material, due to its ability to summarize an experience, opens up opportunities for deeper discussion of what is sacred (Pearmain 2007:76). As one of the members posting Tāwūs Malek pictures wrote,

Figure 2(a). Statues of a peacock (Yazidi Times Facebook group 2014).
Figure 2 (b). An image of a peacock (Yazidi Times Facebook group 2014).

How proud my religion, my God, thank you because you created me Yezidi. Oh Tāwūs Melek it is because of you, my home and my work is safety, I feel happy and the power of Lalish make my faith be more and more comfortable and confident of myself (Facebook user image explanation of images).

According to the above narrative, the user commented on his faith using the images and used words to describe the picture above. Pink (2009) mentioned that it is a kind of visual ethnography to invite people to use image elicitation to produce images. The idea is that there is a close connection between seeing and touching. That said, we might begin, to some extent, to imagine the sensorial and emotional effects of other people’s visual cultures (Pink 2009:114).

Relief of practicing religious online

Lalish is a holy place, the tomb of Sheikh Adi, and the center of Yezidi national and religious life. It is situated in a deep, picturesque valley (Isya
1919:195). The Yezidi usually engage in worship of Sheikh Adi when they assemble at his shrine. Sheikh Adi’s tomb is within the temple. It lies in a narrow valley and has only one entrance as rocks rise on all sides except in a spot where a small stream forces its way into the large valley beyond. Visual representation or visualization of emotionally traumatic reminders of home may cause users to post a picture of Lalish on Facebook. The virtual temple contains a Guide to Prayer that explains various facets of prayer. A fairly typical example taken from one Facebook member posting about the virtual Lalish on their page reads:

Figure 3. Yezidi celebrate the festival of the New Year at Lalish in April 2015 (Yazidi Times Facebook group 2014).

[Congratulations on people gathering for ceremony and Yezidi ritual on the occasion of the holy mass rejoicing solutions extend our warm standing Aattr (fire) blessings to the children of Yezidi religion all over the world, especially the clergy and qawwali and, the poor and servants clean temple and dervishes and Pir, anyone who provides service in Wash Temple, asking God mighty to bring you their festi-
vals goodness and splendor and peace and perpetuate your days you
carefree and Your Excellency that combines all of reunion every year
in this holy place, in the light of freedom and peace and that makes
this a proper end to the tragedies and pains and return our kidnapped
healthy to their mothers].

The Facebook members of the Virtual Temple clearly believe that a virtual
Lalish is possible. In other words, the devotee can see and be seen by the sa-
cred when he or she is online. Jacob stated “The Virtual Temple functions as
an in-home-shrine, and just as one can practice from their in-home shrine;
the same can be done with a Virtual Temple” (2007:1107).

The images of the various deities are condensations of complex mythical
narratives, which in turn condense the Yezidi metaphysical worldview. The
performance of the virtual Lalish, similar to the offline Lalish, is character-
ized by redundancy in that it conveys no new information but does confirm
the religious identity of the performer.

According to Kreyenbroek and Rashow (2005:392), Sheikh Adi, Tāwūs
Malek and Sultan Ezi are one; they are not regarded as separate and have
existed since eternity. Yezidi people pray to Ezi so that he will make their
wishes come true. However, for Yezidi devotees, the peacock is a sign since the peacock is regarded as a manifestation of the deity. The Lalish on the Virtual Temple website is an icon for the peacock on one level, as it clearly resembles the image that can be found in the physical temple. So here we can identify an iconic representation of a symbol.

Figure 5. The qawwal is cleric that brings the symbol of Tāwūs Malek to one region every season. This woman kisses the symbol and prays for her wishes to be granted (YAW Organization Facebook page 2015).

*Senjaq* or *Tāwūs* is a bronze statue of a peacock. It is revered as a symbol of the peacock and the guardian angel for the Yezidi. It is taken around and shown in Yezidi villages. The peacock *Senjaqis* is the most sacred object for Yezidi, and it is usually well hidden from the eyes of strangers. Originally, there were seven bronze peacocks, corresponding to the seven Yezidi districts (also known as *Senjaq*). For more information, refer to Spät (2009:62-65).

Sermons are preached to larger groups by the *qawwal*. They do this when they take the *Senjaq* around remote communities, playing instruments and
singing as part of a practice called **Tawusgeran**. This, like large gatherings such as the annual autumn festival, is a force for religious classification; part of the income collected is donated to Mir’s family (Fuccaro 1999:21). Tāwūs’ image shows that he definitely perceived visual worship as a sacred process: the notion of worshipping in the virtual world is clearly analogous to visiting a **Senjaq** or **Tawūs** in the “real” world, i.e. physically. Just as a virtual **Senjaq** utilizes various conventional signifiers to convey the feeling of a sacred space, members following the Yezidi page clearly perceive it in terms of a place to visit for their religious needs.

Another member represents his feelings toward Tāwūs Malek by showing the image:


A Yezidi Facebook member that lives outside of his homeland mentioned “it is not unusual for Yezidi to have images of the peacock as symbols and statues. Indeed, some Yezidi have them everywhere, blessing them. But they
do not worship them.” The peacock loses its feathers in the autumn and they grow back in spring. Therefore, it was a symbol of resurrection in early Christianity. In addition, it was a symbol of immortality in antiquity, and it was called a heavenly bird. Peacocks were drawn on lamps, mosaic panels, graves and coffins in Italian cities, as well as on the Lalish temple and cathedral decorations. Mostly, drawings featured two peacocks opposite one other, drinking water from a cup that symbolizes the cup of life. Peacock symbols were found on Coptic coffins, as well as on ancient Roman coins and palaces. The peacock’s name also features in the Mandaean religion’s holy book, the Baktashi Alavi. In Iraq, people believe the peacock can move on to another life, i.e. turn into a good person (human) or even a saint (Ar-akelova 2001:321).

Going against discrimination and living according to strict rules

If the media have become an important producer and distributor of religious imagery, we need to ask what kind of religions the media tend to communicate. In order to answer this question, we will borrow a concept developed by Billig (1995), who stated that citizens of a nation-state feel and see their own belonging. He argued that, in nations today, there is a collective memory and also a plural forgetting. Nationalism is growing in diaspora in what Anderson (1992) calls long-distance nationalism.

As Eriksen (2002:123) points out, symbols that often imply ancient heritages such as flags, anthems and festivals, along with sporting events, represent the nation in modern times. Billig (1995:39) claimed that flags symbolize the sacred character of a nation and are either respected by loyal citizens or ritually defiled by those who wish to protest. Hall (1997:5) describes that symbols such as flags can also be thought of like languages or as symbolic practices that give meaning or expression to the idea of belonging to a national culture and identifying with one’s local community.

As Giddens describes, “nationalism is a phenomenon that is primarily psychological, nationalist sentiment rises up when the sense of ontological security is put in jeopardy by the disruption of routines” (Billig 1995:44). Nationalism can be understood as the concept of belonging to a socio-cultural community that has, at times, religiously-driven ambitions to form a nation of its own.
The institutionalized religions actively promote particular religious worldviews through ‘waved’ religious flags, whereas the media through their ‘un-waved’ flags of various religious elements construct a variegated backdrop of religious representations and practices as banal nationalism. (Hjarvard 2006:11)

As Billig (1995) stressed, one of the most hopeful roads of research into transnationalism concerns the “relationship between the new country and the old one” (1995:120) as well as elements usually associated with folk religion; for example, trolls, vampires and black cats crossing the street. Banal religion may combine representations that have no religious meanings: such as upward faces, thunder and lightning and highly emotional music. These may, however, come to be associated with religious meanings through the media’s representational practices. Religious representations serve the particular media genre in question, and the religious meanings are not to be taken too literally. Nevertheless, as banal religious representations, they come to provide a backdrop in modern society for the continued presence and relevance of religious artifacts, meanings and sentiments.

After the rise of ISIS, the Yezidi community started to write more online about the things they feel they must pay more attention to, as concerns their faith. They are morereligious than in the past, and they emphasize telling Tāwūs Malek “we are proud of our Yezidi religion.” Facebook research corroborates the idea that online identity builds some forms of group solidarity: especially for the Yezidi minority.
Figure 7. Yezidi are celebrating Jama in the Lalish Temple (Yezidi in Canada Facebook Group 2012).

الإيزيديون تحدوا داعش في عيد جماو أعلنوا بان الإرادة الأيزيدية فوق كل شيء و لا يموتون مما كلف الأمر و يكونوا قناديل في ظلام العراق , يفتحوا كل أبواب بوجه للش , أعلنوا بان الطوق ابيض دائما , عكس كل الأقوام التي تعرضوا للإبادات الجماعية , كونوا أقوياء دائما

[Yezidi challenge ISIS with an image of the Feast of Jema,⁹ Yezidi Facebook user says “They do not die and they will be lamps in darkness – their clothes are pure white. They stay strong.”]

Discussion and conclusion

The Yezidis’ re-appropriation of their religion in recent years reveals their beliefs more clearly than ever: especially through media. The community uses Facebook as a tool to show its identity in a way that was unimaginable throughout its prior history. Today, cyberspace provides them an environment in which they can build their previously-ignored identity. The online material religion and the Virtual Temple have made a bold attempt
at creating a cyber-facility with the aim of guiding people to virtual places and online individuals to a ritual encounter. However, it is unclear whether these projects demonstrate a transformation of religious practices, as has been suggested (Brasher 2004, O’Leary 2005). It is also unclear whether this is simply a case of “old wine in new bottles.” In other words, there is an attempt to recreate online, as much as possible, the experience of being in the “real world Temple” found in a genuine geographical space. The Virtual Temple is clearly an attempt at reproducing a real shrine online. It employs sensory images that are freely available in other formats; especially, the popular, shiny-colored posters of various deities. The Internet has greatly simplified the exchange of information and ideas amongst Yezidi. It has also helped build a sense of belonging for those with this identity and who share a solidarity with the Yezidi people.

References


Flick, Uwe 2009. An Introduction to Qualitative Research (4th ed.) USA: Sage.


Facebook sources:

Yazidi Times Facebook group 2014.

Yazidi in Australia Facebook group 2015.

YAW Organization Facebook page 2015.

Yezidi in Canada Facebook Group 2012.
Notes

1 The Yezidi worship one god who was the first being and created the universe. It is solely the ambivalent figure of Tāwūs Malek, with some characteristics of the Fallen Angel, who has the function of a demiurge. Yezidi tradition attributes the following words to him: “I was and now am and will forever remain. I hold sway over all creatures and regulate their affairs. No place is void of me. I am a participant in all events that heterodox people consider to be evil, since they do not correspond with their desire.” (Arakelova 2001:321).

2 There is a belief that divine beings (the “Seven Angels”) can reincarnate themselves in human form. Most recently, this occurred in the predecessors of their main religious tribe. These people are called by the Arabic word “khas.”

3 One of the core texts of the Yezidi is the hymn known as qawwals and is read by qawwali men.

4 or meshabet

5 Income means that individuals pay a certain amount of money as a vow in order to make wishes.

6 Mir is one of the Yezidi castes, which also include Sheykh and Pir. In the Tāwūsa-gan ceremony, every visitor pays to worship Senjaq.

7 Hegifer is the name of a shrine for Yezidi in Khatare.

8 An Yezidi area between Sinjar and Sheykhan.

9 The central occasion of the Yezidi religious year is autumn feast of Jema’ye. At this time, all the community members should ideally be present at Lalish, where a seven-day festival is held and their terrestrial meeting is thought to be mirrored by a celestial assembly of god and the seven angels (Kreyenbroek and Rashow 2005:16).