

## **Digital gender divides and e-empowerment in the UAE: A critical perspective**

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### **ABSTRACT**

The phenomenal diffusion and adoption of ICTs in the UAE is widely viewed as a game changer in the country's struggle to address continuous significant gender gaps in the country. The small body of research on this topic has been, however, inconclusive, overtly optimistic, and insufficiently theorized. Addressing these lacuna, the article uses a survey covering 190 UAE students to answer the following three main questions: **(Q1)**: To what extent have Emirati women appropriated the Internet in their everyday life? **(Q2)**: How do gender relations inform the use and appropriation of the Internet in the country? **(Q3)**: To what extent have Emirati women, through their use of the Internet and ICTs, been empowered to bridge existing gender divide? Drawing on Kabeer's (2001; 2005) work, particularly her distinction between "active" and "transformative" agency, the article argues that while ICTs help Emirati women have better access to various resources, such as education and the job market, there is little evidence to suggest that new technologies alone enable women to alter dominant gender power relations in society.

**Keywords:** *Gender divides; ICTs; Empowerment; UAE; Active agency; Transformative agency*

### **INTRODUCTION**

Many studies have argued that the impact of ICTs on women's empowerment is commensurate with their access to education and labor market. If so, we can only assume that these technologies will significantly contribute to bridging the gender gap in the UAE where the rate of literacy among Emirati women is among the highest in the world and where women constitute almost half of the labor force (World Bank 2014). So far, very few studies have tried to address this question in the context of this country, while existing literature is fraught with several limitations, chief among them their focus on a single domain such as education, labor or entrepreneurship, which equates empowerment with achievement in one of these areas. This understanding of empowerment is certainly relevant in contexts where women suffer visible material scarcity and lack of access to resources, but is inadequate in situations, such as the Emirati, where women seem to have access to resources and to be present in the public sphere. What's more, most of these studies deal superficially with the issue of gender and ICTs, employing mainly descriptive perspectives that emphasize issues of access and skill than latent gendered power relations in society.

Drawing on a feminist perspective, mainly Naila Kabeer's distinction between "passive" and "active" agency, and between "greater effectiveness" and "transformative" agency, (1999, 2001, 2005), the paper is able to identify and explain a multilayered notion of empowerment associated with the use of ICTs that is characterized with both possibilities and progress as well as limitations and stagnation. On the one hand, the paper confirms that Emirati women are increasingly able to take advantage of ICTs to achieve greater agency "effectiveness",

consolidating and expanding their gains and roles in the fields of education, business and entrepreneurship, as well as in the sphere of private life. On the other, the paper finds little evidence to confirm that Emirati women are able to tap on the above achievements to achieve “transformative agency” that can only be realized through challenging deep-rooted forms of societal and cultural restrictions that deny women equal opportunities in decision making and the public sphere.

## **LITERATURE REVIEW**

### **Gender divides and the role of ICTs**

Bridging gender divides and empowerment of women continues to be key issues on the development agenda at the global and national levels over the last decades. Achieving gender equality was the 3<sup>rd</sup> on the list of the millennium goals and occupies now the 5<sup>th</sup> position among the UN sustainable development goals. Information and Communication Technologies (ICTs) are considered by various actors involved in this field to play a critical role to bridge gender divides. In academia, a significant body of research has appeared addressing this topic in the last decade; however, this research has been, for the most, either inconclusive or only confirming that women are lagging behind men in ICTs, which suggests that we cannot “know if ICTs are a severe threat or an opportunity for women” (Herbert, 2011: p.8). Some studies have lauded the empowering potential of ICTs but established a tight link between economic and professional empowerment of women and their ability to tap the potential of ICTs in the public sphere (Oleksy et al. 2011; Meredith & Wesley, 2007; Skalli, 2006; Urquhart, Liyanage, Kah, 2008). That is, ICTs seem to favor social groups and demographics with economic, social, and cultural.

### **Gender digital divides in the MENA region**

While there has been a surge in studies dealing with digital divide in the context of MENA countries over the last few years, very few of these studies focus specifically on this divide as it pertains to gender power relations, and a significant number of these studies were limited in scope and objectives. Shapher et al. (2010) identified two types of gaps in this area. Firstly, there is a dearth of academic research on ICTs use in the MENA region. Secondly, the existing literature provides a “very superficial discussion about the engagement of women with ICTs in this region” (p.2). So far, researchers have concluded that women in the region have been prevented from taking a full opportunity from the potential of ICTs in the economic sphere (Fuad et al., 2011) and ICT industry (Elnaggar 2005; Touati 2008) as well as in politics and public sphere (Skalli 2006; Ben Moussa 2013). Comparison studies like Doiron’s (2012) have pointed out the differences between men and women in their ICTs competencies and perception of the new technologies in higher education. A key conclusion of the study is that men tend to “have a more broad-based experience with ICTs”, but “women appear to have a more in-depth experience with basic software applications that are used to a great extent in an educational context” (p.4).

### **Research on digital divides in the context of UAE**

In the specific context of the UAE, Shakir et al. (2008) explored the ways Emirati women, especially in the context of higher education, use and benefit from ICTs in three main areas, namely family, identity building, and as a space of freedom (p.9). The study highlights the positive attitude of women have towards the role if ICTs in their lives but is not articulate about the other spheres arguing that “there is a need for further investigation of these themes to understand how Emirati females interact with technology on personal, social, academic and more importantly, professional level” (p.9). Similarly, Sokol and Sisler’s study (2010) studied the perception towards

the Internet and its use in socializing among university students in the UAE. The authors argue that Emirati men and women use the Internet in different ways. Men will be more likely to use it for social interaction, whereas women will resort to the Internet to look for information. Explaining these differences, Sokol and Sisler argue that men have more freedom to meet and communicate with women online, while Emirati women are usually under strict societal and family control. One of the main findings of the study is that while the Internet can indeed be a means of overcoming social exclusion and gender segregation, it paradoxically can contribute to “reinforcing pre-existing norms within newly-networked traditional communities” (p.30). Contrary to Sokol and Sisler, however, Vodanovich, Urquhart, and Shakir (2010) argue that the Internet is allowing women to flaunt societal restrictions by providing them with more freedom and possibilities to communicate with the other gender. Indeed, “women could find freedom in a virtual world that was not afforded to them in the real world” (Vodanovich, Urquhart, and Shakir 2010).

### **Limitations in the Literature & Rationals for the Study**

Despite the burgeoning literature on the issue of gender digital gap in the UAE and MENA countries in general, we found that the data and evidence produced so far on the topic remain scarce, inconclusive and inadequately theorized. Most existing studies focus on a single aspect of gender digital gap such as access to information technologies, use of IT in specific domains such as education, business, and differentiation in skills in the use of technology. Whilst these issues remain central to gender divide, addressing them as isolated phenomena contribute to producing reified perspectives of ICTs, which does not help us understand how gender divides are rooted in power relations between men and women in the context of their everyday life. More importantly, the majority of these studies subscribe to the dominant notion of empowerment in development studies interpreted mainly as equality in economic, education and professional attainment, which is insufficient to account for less visible forms of gender gaps and inequalities, especially in the context of a country such as the UAE where Emirati women enjoy high levels of education and life standards. The case of the UAE offers, thus, a valuable and unique context where to explore this topic as it is characterized by advanced IT infrastructure and avant-gardist ICT policy matched with high gender gap. It also allows us to further explore the argument advanced by many studies that ICT gender gap diminishes or disappears when women the variables of education, income, and access to the job market are controlled.

### **The Case of the UAE**

The economic successes of UAE over the last couple of decades have only been matched by an equally fast progress in human development as the country is rated with a “very high index” (UNDP, 2015). This success story is, however, still marred by a gender divide that seems to resist the ascending trends in the other spheres, particularly at the level of economic and social empowerment. As is the case with all the other MENA countries, gender divide and women’s low representation in public sphere are met with formidable challenges in the UAE as the country ranks 128th for women economic participation and opportunity (World Economic Forum, 2015). In this context, the phenomenal diffusion and adoption of new communication technologies and applications, such as the mobile phone, the Internet and social media over the last decade have raised fresh hopes for a faster bridging of existing gender divides. capital, reinforcing, thus, existing power relations rather than unsettling them.

UAE has made a significant progress in establishing solid grounds for IT infrastructure and ICT-related economy and businesses to grow and expand. The country saw in the Internet a means to improve its position as a business, touristic and commercial hub in the region and beyond. Heavy investment in the sector enabled the country to build an advanced IT and telecommunication infrastructure (Sokol & Sisler 2010). The UAE’s promotion of ICTs has been efficient since more than 93% of UAE residents are online, compared to 52% in the Middle East, and 46% globally

(ITU, 2016). Among the 26 countries that were included in the Google Survey on smart phones, the UAE had the highest number of residents owning smart phones, with 61% mobile users who possessed personal smart phones (El Sayed et al., 2015). Likewise, the UAE has made a huge progress in e-government. For example, Dubai government's services are accessible through websites or Apps while the "Smart City" project aims to set up free Wi-Fi spots throughout Dubai. Careers in ICTs are promoted through the media and the creation of ICTs departments in Universities. Government employees are encouraged, through incentives, to constantly improve their IT skills through the Government-funded ICDL program. This policy earned the country advanced rankings in the ICTs Readiness Index issued by the World Economic Forum over the recent years. The UAE was thus ranked 11th globally for its favorable IT environment subindex, 13th in the usage subindex, and 23rd in the networked readiness subindex (World Economic Forum, 2015). The UAE has also achieved significant progress in e-government services in the last years, as it ranked 32 globally and 2nd among GCC countries (UNPACS 2014).

At the same time, the UAE has made huge strides in bridging the gender gap since its establishment in 1971. In fact, it tops Arab countries on many levels, especially in educational attainment for women. UAE nationals constitute only 13% of the total population, estimated at 8,240,000, and almost 50% of UAE nationals are females (National Bureau of Statistics, 2011). According to the 2015 World Economic report, the UAE ranks first globally in terms of secondary education enrolment for girls. The literacy level is 94% for men and 97% for women (El-Sayed et al., 2015). Overall, however, and compared to other regions in the world, the country's gender indexes show that there are still significant gaps to bridge. While the UAE ranks 86th in educational attainment for women in general, it ranks 128th for women economic participation and opportunity, 133rd in health and survival, and 93rd in political participation. The UAE has also slipped a few positions in the global gender index inasmuch as it ranked 119th in 2015, compared to 103rd in 2010 (World Economic Forum, 2015). According to the National Bureau of Statistics (2011: p.33), the percentage of economically active men in the country "was about twice as high as that for women at 89% and 42% respectively."

## **RESEARCH QUESTIONS**

Thus, this article will explore the implications of ICTs diffusion and use for women's empowerment in the UAE. Using quantitative analysis, notably a survey of 190 Emirati students, the article will address the following key questions:

- (Q1):** To what extent have Emirati women appropriated the Internet in their everyday life?
- (Q2):** How do gender relations inform the use and appropriation of the Internet in the country?
- (Q3):** To what extent have Emirati women, through their use of the Internet and ICTs, been empowered to bridge existing gender divide?

## **CONCEPTUAL FRAMEWORK**

For the purpose of this study, we draw on Naila Kabeer's (1999, 2001, 2005) conceptualization of empowerment. Kabeer acknowledges the importance of such goals as education, access to male dominated jobs, and political representation because they have a positive impact on women's life. But these goals set narrow benchmarks in that they become goals in themselves rather than instruments. For her, empowerment entails the "ability to make choices" (2005, p.13), and "the expansion in the people's ability to make strategic life choices in a context where previously this ability was denied to them" (p.437). The usefulness of Kabeer's definition lies in that it links the

process of empowerment to the notion of “human agency and choice”. The process of empowerment covers the following three interrelated dimensions, namely resources (pre-conditions), agency (process), and achievements (outcome). Resources are not limited to material ones but include “various human and social resources which serve to enhance the ability to exercise choice,” and which include family, market, and community (Kabeer, 1999, p.437). The second dimension of agency refers to the “ability to define one’s goals and act upon them” (p. 438). Agency can be positive when people are able “to define their own life choices and to pursue their own goals (p.437).” but it can also be negative when it means having “power over” others or the capacity of actors to “override the agency of others, for instance, through the use of violence, coercion and threat” (p.438). More importantly, Kabeer distinguishes between “greater ‘effectiveness’ of agency”, and an agency that is “transformative”. While the first one refers to “women’s greater efficiency in carrying out their given roles and responsibilities”, the other to their “ability to act on the restrictive aspects of these roles and responsibilities in order to challenge them” (Kabeer, 2005, p.1).

## METHODOLOGY

To answer the above questions, the study used a quantitative method, particularly a survey that was conducted among more than 190 university students in the UAE. The study adopts a comparative perspective since the population in the study includes male and female respondents. As the adoption of ICTs in the UAE is one of the highest in the world, a comparative perspective is crucial because it allows us to go beyond surface indicators such as access to technology to modes of use and attitudes towards ICTs across various contexts and applications.

### Sampling

Convenience sampling was drawn from Emirati students at the Canadian University Dubai. Although the sampling was limited to undergraduate students, the sample is still a rich one in that it covers a large spectrum of variables and is representative of Internet users in the UAE. Indeed, while respondents are all students, they do not belong to the same age group or gender, nor do they have similar social status and background.

*Table 1: Demographics*

Value	Men	Women	Gap
Sample (n).	(n=93)	(n=97)	-4
18-24 years old	49%	51%	-2%
25-35 years old	45%	36%	9%
36-45 years old	4%	6%	-2%
Over 45 years old	2%	2%	0%
High school Certificate	37%	21%	16%
Diploma	23%	18%	5%
Single	65%	74%	-9%
Married	33%	19%	14%
Divorced	2%	3%	-1%
Have children	9%	15%	-6%
Employed	77%	52%	25%

A total of 190 respondents were surveyed, 97 (51%) of which are women. Almost half of these respondents were mature students (over the age of 24), while a significant part of them were also married and with children. Likewise, the vast majority of Emirati students at the university are employed, especially in the public sector (see Table 1).

### Data Collection and reliability

Participation in the survey was voluntary and anonymous, and the survey used a paper-and-pencil questionnaire of five pages and was administered in the classroom using scale and multiple-choice questions. The completed questionnaires were collected immediately. In total, 21 questions were administered. Three types of questions were used: questions testing general attitudes towards the Internet and patterns of usage; questions testing specific usages of the Internet at the personal, professional and societal levels; and questions testing perceptions towards and experience with societal control over the use of the Internet and social media. A two-tailed z-test was conducted to assess the reliability of results at the level of each value and results were deemed significant at a level of 0.05 of significance.

### FINDINGS

The first sets of questions in the survey aimed at answering RQ1 that explores the extent to which Emirati women have been able to appropriate the Internet in their everyday life (. No statistically significant differences were found between men and women in terms of attitude towards the internet, intensity and frequency of use and choice of access platforms see tables 2, 3, 4, and 5). Results show that both men and women have almost identical perception of and attitude towards the role of the Internet in society that are generally positive (see table 2). But results also show that despite the rapid and vast adoption of the Internet and ICTs among the respondents, there is a strong opinion especially among men that the Internet are either not positive or slightly positive (49% for men); in comparison, the majority of women (59%) have either very positive or positive attitude towards ICTs.

**Table 2:** Perception towards the role of the Internet in society

Value	Men	Women	Gap	z-score	P-value
Very positive	10%	9%	1%	11.026	0
Positive	49%	42%	7%	0.2758	0.332
Slightly positive	22%	20%	2%	0.3385	0.727
Not positive	19%	29%	-10%	-1611	0.107

The positive perception of ICTs among Emirati women is translated in their frequency and intensity of use of these tools. Results show that half of the Emirati women respondents use the Internet four hours or more per day compared to 35% only to men (see table 3). But both men and women show similar trends in their mode of access to the Internet as the vast majority of respondents indicated that their online activities were performed mainly through their mobile phones. These results are compatible with global trends where mobile internet has overtaken fixed one as the cost of mobile phones and 3G networks has become more affordable and accessible (Internet Society, 2015).

**Table 3: Internet Access and Intensity of use**

<b>Internet access platforms</b>	<b>Men</b>	<b>Women</b>	<b>Gap</b>	<b>Z-Score</b>	<b>P value</b>
Work PC	16%	12%	4%	0.795	0.423
Home PC	15%	23%	-8%	-1.402	0.1615
Mobile	67%	62%	5%	0.719	0.471
Tablet	4%	5%	-1%	-0.332	0.741
<b>Intensity of using the Internet</b>					
Less than 1hr/day	7%	10%	-3%	-0.74	0.459
1hr/day	16%	11%	5%	1.009	0.312
2hrs/day	21%	9%	12%	-0.673	0.502
4hrs/ day	22%	20%	2%	0.338	0.727
More than 4hrs/day	35%	50%	-15%	-2.089	0.036

As we move from general perceptions of ICTs to more specific uses and skills, results show significant differences between genders, however. Results demonstrate that there is a huge difference between male and female students in terms of using the Internet to search for new information (see table 4).

**Table 4: Preferred online tools and websites**

<b>Preferred tools</b>	<b>Men</b>	<b>Women</b>	<b>Gap</b>	<b>Z-SCORE</b>	<b>P value</b>
<i>Used Educational tools</i>	5%	55%	-50%	-7.556	0.001
Google	7%	25%	-18%	6.206	0.0643
Wikipedia	0%	2%	-2%	-4.6374	0.001
Google books	1%	14%	-13%	-0.8495	0.395
Google Scholars	1%	2%	-1%	-1.935	0.052
Academia	11%	17%	-6%	-1.193	0.234
Other	4%	19%	-15%	3.166	0.001
<b>Most visited websites</b>					
English	29%	53%	-24%	-3.365	0.001
Arabic	71%	27%	44%	6.064	0.001
Entertainment	63%	71%	-8%	1.1731	0.242
News	63%	50%	13%	-1.806	0.070
Shopping	26%	20%	6%	-0.9834	0.327
Sport	50%	25%	25%	-3.563	0.003
E-government	25%	14%	11%	-1.917	0.054

In fact, compared to female students, male students hardly use the Internet as a tool of information, whether for academic or non-academic purposes. This is not very surprising given that girls outperform boys in different school levels and that women in general form the majority of university graduates and postgraduate candidates in the country (Ridge, 2009). Furthermore, only 29% of the male respondents indicated that they visited English websites compared to 55% of female respondents, which reflects a big discrepancy in language competencies between men and women. This, in turn, shapes their online experiences and choices. These results are compatible with numerous studies that also found that women outperform men in the use of the Internet in education (Herbert, 2011). However, these differences remain limited since the results also show that male and female respondents use mostly the Internet for entertainment (71% for women and 63% for men) and that men use the Internet more for functional purposes such as e-shopping and e-government. These results seem to corroborate other findings that found that male and female Emiratis share common positive interest in information technology (Doiron, 2012; Shakir et al., 2008). At the same time, our results show also that while women may enjoy a more in-depth experience with ICTs in the field of education, their use of this resource remains limited in other significant areas, such as e-business and e-government where men still dominate.

In order to further examine the perceptions of Emiratis towards the Internet and its implications for their life, participants were asked whether the Internet helped them achieve a set of targets in their personal and professional lives. Again, results reflect relative similarities between men and women. The majority of participants, both male and female, indicated that their use of the Internet could be a source of happiness and satisfaction in their life. Similarly, 53% of women and 50% of men said that the Internet helped them make new friends (see table 5).

**Table 5:** *Targets & Transaction through the Internet*

<b>Value</b>	<b>Men</b>	<b>Women</b>	<b>Gap</b>	<b>Z score</b>	<b>P value</b>
Achieve targets & goals	55%	62%	-7%	0.979	0.327
Find happiness & satisfaction	47%	56%	-9%	1.240	0.214
Professional skills	50%	53%	-3%	-0.413	0.681
Make new friends	36%	42%	-6%	0.847	0.395
Professional contacts	22%	26%	-4%	0.645	0.522
Find a job	23%	13%	10%	-1.797	0.071
Set up a business	16%	6%	10%	6.231	0.001
Increase income	20%	9%	11%	-2.159	0.030
Find husband/wife	31%	29%	0%	-0.3008	0.764
<b>Use for online transactions</b>					
Shopping	55%	46%	9%	-1.240	0.214
Tuition fees	6%	6%	0%	0	0
Money Transfer	26%	22%	4%	-0.645	0.515
Pay fines	36%	14%	22%	-3.511	0.004
Amenities	35%	21%	14%	-2.151	0.003
Others pay for me	27%	41%	-14%	2.034	0.042



The second set of questions in the survey aimed at answering RQ2 to see how gender relations inform the use and appropriation of the Internet in the UAE. Results show, for instance, that the gap widens between men and women when it comes to using the Internet to establish social network outside the boundaries of traditional kinship as in the case of communication with people outside close social circles. The Internet may have allowed both men and women to construct relationships outside their immediate kinship, but this remains truer for men than for women regardless of the nature of these relationships. The fact that 23% of women use social media to communicate with work colleagues should be considered as a significant development in a highly conservative society. Still, as the results show, men markedly surpass women in the use of the Internet in connecting with “strangers”, males and females alike (see table 6).

**Table 6:** People most communicated with on the Internet

<b>Value</b>	<b>Men</b>	<b>Women</b>	<b>Gap</b>	<b>Z Score</b>	<b>P value</b>
Family	80%	73%	7%	-1.136	0.254
Friends	70%	70%	0%	0	0
Colleagues	35%	23%	12%	-1.824	0.068
Strangers from same gender	33%	13%	20%	-3.285	0.001
Stranger from other gender	24%	11%	13%	-2.364	0.018

Despite the apparent constraints experienced by women in terms of using the internet to expand social networks beyond kinship and traditional circles, a significant number of women indicated that they did or do use the Internet and social media particularly to communicate with persons who might not be approved of by their families. For instance, more than half of the female respondents said they used Facebook for this purpose, and a third of them through other platforms such as WhatsApp or Twitter (see Table 7 below). By contrast, only a negligible number of men said they did, which clearly reflects the dominant gender power relations since men do not feel they are forbidden or denied the possibility of communicating with people who might not be approved of by their families.

**Table 7:** Communicate online with persons not approved by family

<b>Value</b>	<b>Men</b>	<b>Women</b>	<b>Gap</b>	<b>Z-Score</b>	<b>P value</b>
Twitter	2%	19%	-17%	3.792	0.0001
Facebook	0%	51%	-51%	8.007	0.0001
WhatsApp	5%	18%	-13%	-4.666	0.0001
Email	3%	4%	-1%	0.374	0.711

Male and female respondents also differed in terms of the activities women should not be doing online. While the majority of men had no problem with women’s use of these media platforms to communicate with family members and friends, men’s support dwindled when it came to the use of social media for self-expression and participation in public forums, and became even less for posting personal pictures and videos (Table 8). These results are very indicative on two levels. First, they show that contrary to the assumption that UAE is a conservative society where men are predominantly against women’s participation in the public sphere, a significant number of male respondents were in favor of women’s use of the Internet for personal expression on various

platforms and for different purposes, including writing personal blogs and posting personal photos. Paradoxically, the results also show women still face a steep challenge to surmount as only half men or less are supporting their right for self-expression. Understandably, twice as many women respondents (46%) were in favor of women's right to do so. Posting personal photos and videos is still, however, generally considered including by women, to be too liberal and against traditions.

**Table 8:** *In favor of women's use of social media for various purposes*

<b>Value</b>	<b>Men</b>	<b>Women</b>	<b>Gap</b>	<b>Z score</b>	<b>P value</b>
Communicate with family	97%	99%	-2%	0.989	0.3220
Communicate with friends	76%	99%	-23%	4.832	0.0001
Communicate with colleagues	61%	89%	-28%	4.473	0.0001
Post comments on online articles	53%	90%	-37%	5.671	0.0001
Set up blogs	46%	78%	-32%	4.550	0.0001
Post personal photos	22%	46%	-24%	3.4848	0.0005
Post personal videos	7%	25%	-18%	3.3671	0.0007
<b>Need to conceal/protect online identity</b>					
Use real name	55%	46%	9%	-1.2403	0.2149
Use alias	8%	16%	-8%	1.6912	0.0910
Using both	37%	36%	1%	-0.1431	0.8886

Men also enjoy more freedom in revealing their real identity online compared to women, since 55% of them stated that they used their real name while surfing the internet compared to 46% for women. Consequently, many more women use aliases than men, which reflects the constraints on women to obey to societal and cultural decorum and rules of behavior, and to protect their privacy and security. The difference between men and women at this level is limited since both men and women take into consideration societal and cultural constraints when using the Internet, especially in the context of collectivist or communal culture where face saving is a highly valued virtue and practice. Face, a metaphor for public self-image, is highly valued in collectivist societies where people identify themselves primarily with their communities.

While male respondents may be relatively favorable to the idea of women using social media in general, they still supported the idea that men, particularly husbands, exercise some form of control or supervision over women's or wives' use of the Internet (See Table 9). In contrast, nearly half the female respondents said that men should never monitor their wives' media accounts. But a little more than half believe that it is legitimate if the husband monitors his wife's media account from time to time. Whereas 36% of men believe that they should always monitor the media accounts of their wives, and only 22% think they should never monitor them, 47% of women are against their husbands monitoring them. Paradoxically, more men than women are in favor of wives monitoring their husband's use of the Internet. Women are also more in favor of having some control over their husband's use of the Internet than the other way around. While these results reflect the complexity of gender relations in patriarchal societies, which cannot be easily reduced to asymmetrical power relations, they also suggest that men, more than women, need control precisely because they enjoy more freedoms than women. Where double standards dominate, men and women alike take it for granted that women can enjoy more conjugal leverage but less societal power in the public sphere.

**Table 9:** Supporting control over partner

<b>Husband should supervise wife's use of social media</b>					
<i>Value</i>	<i>Men</i>	<i>Women</i>	<i>Gap</i>	<i>Z score</i>	<i>P value</i>
Always	36%	11%	25%	-4.0787	0.0001
Sometimes	27%	25%	2%	-0.3143	0.7565
Rarely	15%	16%	-1%	0.1903	0.8493
Never	22%	47%	-25%	3.6173	0.0003
<b>Wife should supervise husband's use of social media</b>					
Always	53%	47%	6%	-0.826	0.4065
Sometimes	32%	30%	2%	-0.298	0.7641
Rarely	7%	15%	-8%	-7.6805	0.0001
Never	8%	7%	1%	-0.2618	0.7948

Finally, results show that men and women do not differ significantly when it comes to barriers preventing them from using or benefiting more from social media (see table 10). The major problem identified by respondents is lack of time, followed by their feeling of being watched by colleagues or work supervisors. In general, women are more constrained by lack of time, which is normal given that they are usually required to take care of home chores even if they have a job. More men indicated that they are constrained by lack of IT skills, which can be explained by the fact that women outperform men in education in the country.

**Table 10:** Barriers against use of social media

<b>Value</b>	<b>Men</b>	<b>Women</b>	<b>Gap</b>	<b>Z score</b>	<b>P value</b>
I don't have time	63%	74%	-11%	1.6333	0.1031
Colleague are always watching me	0%	0%	0%	0	0
Family members are watching me	12%	9%	3%	-0.6752	0.46965
I feel embarrassed to use some applications	7%	1%	6%	-2.1259	0.0331
I lack skills to use some applications	19%	19%	1%	0	1

## DISCUSSION

The main objective of this study is to examine the implications of ICTs and the Internet for women empowerment in the UAE. The literature on role of ICTs in bridging gender gaps has been generally inconclusive. Commentators have also found a strong correlation between women's access to education, job market and other material resources, on the one hand, and their ability to close digital gender gap, on the other. In this context, this paper has set out to answer three main research questions.

The first research question aims to see the extent have Emirati women appropriated the Internet in their everyday life. Results demonstrate that women have appropriated the Internet in many areas of their lives at the personal and professional levels. Women use the Internet much more than men in general, and believe, more than men, that ICTs have helped them achieve self-satisfaction and happiness. Notably, women use the Internet more for socialization as they have been using it to expand their social ties and networks beyond family and tribal affiliations. Results also show that women outperform men in using the Internet in education, expand their professional contacts, find jobs, and enhance their professional skills. These results corroborate other studies' findings showing how women have been able to catch up with men in terms of ICTs use and appropriation for their own benefit when the variables of income, education and access to the labor market are controlled, and that digital divide may be shaped by these factors in countries and situations of high material scarcity and inequalities (Kabeer, 2005; Hilbert, 2011). In the case of the UAE, generous welfare subsidies provided to citizens, and well-funded development initiatives over the last four decades have created a situation where material inequalities are hardly a significant factor in gender divides.

The second question the paper sought answer is to see how do gender relations inform the use and appropriation of the Internet in the UAE. Results have demonstrated that digital gender divide disappears on many indicators but reappears when situations involve decision-making or self-expression, which are also forms of empowerment that can enable women to have access to the public sphere and set the agenda for policy making. In other words, results indicate that implications of ICTs for women significantly vary from contributing to better "effectiveness" of agency, i.e. the ability of women to benefit from various resources to enhance the quality of their lives, compared to permitting "transformative" agency, i.e. enabling women to achieving genuine equality in society (Kabeer 2005).

This brings us to the third question that examines the extent to which Emirati women, through their use of the Internet and ICTs, have been empowered to bridge existing gender divide. To better answer this question, we need to interpret empowerment as a notion that entails more than closing the gender gap in education and income since these benchmarks are only instruments to increase women's ability to make independent and strategic choices in the public and private spheres "even in the face of others' opposition" (Kabeer, 200, p.14). In fact, despite the many positive indicators highlighted above, women's access to the Internet and their appropriation of various online tools in their life has not extended to all domains, especially those that concern decisions and transactions in practical life, from communicating with non-family members to setting up businesses to online transactions and e-government, and almost half of them "relegate" these tasks to male family members. Women may outperform men in IT skills and education, but they still cannot make full use of this technology and their skills to express themselves freely online for instance, by setting up a blog or uploading personal pictures or videos online. Women tend to gain from the Internet when the benefits and uses are deemed compatible with or at least not threatening dominant patriarchal social and cultural norms, such as girls' education, but tend to lag behind men when dominant power relations are at stakes. The rate of approval for women's appropriation of the Internet significantly drops when deeper and core societal values and norms are at stake. To use Kabeer's distinction between agency as "effectiveness" and "transformative" agency, we can argue that ICTs enhance more Emirati's women "efficiency in carrying out their given roles and responsibilities" than they permit them to "act on the restrictive aspects of these roles and responsibilities in order to challenge them" (2005, p.15).

In fact, there is a difference between getting access to resources and having control over them for self-empowerment. Women for instance still depend on men for taking care of online transactions. Results show that more women have benefited from the Internet to find a job, but less to set up business or to gain additional income. The contradictions highlighted in the results

are not specific to the case of the UAE. What is important is that a significant number of women themselves adhere to the opinion that there is a limit to women's use of the Internet as a tool of self-expression. The contradiction, however, is simply an example of very common practices where women contribute to the reproduction and perpetuation of patriarchal values in the family and society. Rather than perceive gender power relations simply as a form of coercion where women have to oblige to men's authority and pressure, power can also take the form of consent and complicity of women themselves who interiorize social and cultural norms that relegate them and their role to secondary and marginal status. Indeed, in the case of subtle ideological and cultural power relations."[s]ubordinate groups are likely to accept, and even collude with, their lot in society, if challenging this either does not appear possible or carries heavy personal and social costs" (Kabeer, 2005, 14) . Paradoxically, a majority of men agree with women that wives should watch over their husband's use of social media, much more than husbands do the same with their wives. This last result seems to be not so much a desire from men to grant women more power in marital relationships as an admission that husbands enjoy more liberty and power in their use of social media compared to women.

## CONCLUSION

To summarize, supporting findings in the literature, the study confirms that ICTs do empower women when the right conditions exist such as access to education, IT resources, and job market. The article also demonstrates that these conditions do not guarantee transformative empowerment, i.e. enabling women to challenge dominant gender relations through equality in decision making and control over all aspects of life choices. Men still wield more leverage over women because of various reasons, chief among them cultural norms and traditions.

## LIMITATIONS

While the study provides new insights into gendered digital divides in context of Arab Gulf countries and UAE particularly, it has a number of limitations. The survey in the study is based on a relatively small sample and, thus, the inferences we can construct from it have an illustrative value in accordance with the sample size itself. Moreover, the results of this study are relevant to the special condition and experience of women in the UAE and the Arab Gulf region, but might not be applicable to other countries where issues of access to resources and basic services are still playing a significant role in gendered digital divides. Finally, relying solely on quantitative methodology may not be sufficient to investigate complex issues related to gendered power relations. Therefore, quantitative research has to be supported by qualitative analysis to dig deeper into the complex intersections between cultural, discursive, and societal variables shaping gendered digital divides.

## REFERENCES

- Al Izki, F., & Weir, G. R. S. 2014. "Information Security and Digital Divide in the Arab World". Proceedings from Cyberforensics, 15-24. Retrieved from [https://pure.strath.ac.uk/portal/files/35636573/2\\_alizki\\_weir.pdf](https://pure.strath.ac.uk/portal/files/35636573/2_alizki_weir.pdf) [May 2016]
- Antonio, A., & Tuffley, D. 2014. "The Gender Digital Divide in Developing Countries". *Future Internet*, Vol. 6, No.4, pp.673-687.
- Anderson, M. & Shrum, W.2007. "Circumvention and Societal change: ICTs and the Discourse of Empowerment". *Women's Studies in Communication*, Vol. 30, No,2, pp. 229-253.

- Arab Social Media Report (ASMR). 2011. The Role of Social Media in Arab Women's Empowerment. 1(3). Retrieved from <http://www.arabsocialmediareport.com/home/index.aspx>. [June 2016]
- Bray, F. 2007. "Gender and Technology". *Annual Review of Anthropology*, Vol. 36, pp. 37-53.
- Ben Moussa, M. 2013. "Empowerment and reproduction of patriarchy online: implications of the Internet for Feminist Movement in Morocco". In Kiran Prasad (Ed.) *New Media and Pathways to Social Change: Shifting Development Discourses* (pp. 399-433), New Delhi: B. R. Pulishing Corporation.
- Bourdieu, P. 1984. *Distinction: A Social Critique of the Judgment of Taste*. London, Routledge.
- DiMaggio, P., Hagittai, W. and Neuman, R. 2001. "Social Implications of the Internet". *Annual Review of Sociology*, Vol. 27, pp. 307-36.
- Doiron, G. 2012. "The digital divide and single-gender undergraduate education in the UAE". *Learning and Teaching in Higher Education: Gulf Perspectives*, Vol. 9, No. 2. DOI: <http://dx.doi.org/10.18538/lthe.v9.n2.102>
- Dutta, S., Geiger, T., & Lanvin, B. (Eds.). 2015. "The Global Information Technology Report 2015". World Economic Forum. Retrieved from [http://www3.weforum.org/docs/WEF\\_Global\\_IT\\_Report\\_2015.pdf](http://www3.weforum.org/docs/WEF_Global_IT_Report_2015.pdf) [ June 2016].
- El Sayed & Al., 2015. Social Changes & Social Media Usage among Emirati Female. International Conference on Communication, Media, Technology and Design Proceedings (16 - 18 May 2015 Dubai – United Arab Emirates). Retrieved from <http://www.cmdconf.net/2015/pdf/40.pdf>. [June 2016]
- Elnaggar, A. 2007. "The Status of Omani Women in the ICT sector". *International Journal of Education and Development using Information and Communication Technology*, Vol. 3, No. 3, 4-15.
- Hearn, G., Kimber, M., Lennie, J., & Simpson, J. 2005. "A Way Forward: Sustainable ICTs and Regional Sustainability". *The Journal of Community Informatics*. Vol. 1, No. 2. Accessed at <http://ci-journal.net/index.php/ciej/article/view/201/159>.
- Fuad, N., Bohari, A., Wei Hen, C. 2011. "Women Entrepreneurs in the ICT-Related Business in Malaysia: A Demographic Survey". *International Journal of Business and Management*, Vol. 6, No.10, pp. 127-137.
- Fraser, N. 1995. "From Redistribution to Recognition: Dilemmas of Justice in a 'Post-Socialist' Age". *New Left Review*, Vol. 212, pp. 68-93.
- Harrington, J. L. 2009. *Technology and Society*. Sudbury, MA: Jones and Bartlett Publishers.
- Hilbert, M. 2011. "Digital gender divide or technologically empowered women in developing countries? A typical case of lies, damned lies, and statistics". *Women's Studies International Forum*, Vol. 34, No. 6, pp. 479-489.
- Internet Society. 2015. "Global Internet Report 2015: Mobile evolution and the development of the Internet". Retrieved from

- [http://www.internetsociety.org/globalinternetreport/assets/download/IS\\_web.pdf](http://www.internetsociety.org/globalinternetreport/assets/download/IS_web.pdf). [ May 2016]
- Kabeer, N. 1999. "Resources, Agency, Achievements: Reflections on the Measurement of Women's Empowerment". *Development and Change*, Vol. 30, pp. 435-464.
- Kabeer, N. 2001. "Conflicts over credit: re- evaluating the empowerment potential of loans to women in rural Bangladesh", *World Development*, Vol. 29, No. 1, pp. 63-84.
- Kabeer, N. 2005. "Gender Equality and Women's Empowerment. A critical Analysis of the Third Millennium's Development Goal". *Gender and Development*. Vol. 13, No. 1, pp.13-24.
- Kularski, C. M., & Moller, S. 2012. "The Digital Divide as a Continuation of Traditional Systems of Inequality". *Sociology* 5151. Vol. 1, No. 23.
- Liff, S. & Shepherd, A. 2004. "An Evolving Gender Digital Divide". *Issue Brief no. 2*. Oxford, UK: Oxford Internet Institute.
- Malhotra, A. & Schuler, S. R. 2005. "Women's Empowerment as a Variable in International Development". In Narayan D. (Eds), *Measuring Empowerment: Cross-Disciplinary Perspectives* (pp. 71-88). Washington, D.C.: World Bank, Gender and Development Group.
- Ministry of Economy. 2015. The Annual economic report. Retrieved from <http://www.economy.gov.ae/EconomicalReportsEn/MOE%20Annual%20Report%20English%20-%202015.pdf>.
- Norris, P. 2001. *Digital Divide: Civic Engagement, Information Poverty, and the Internet Worldwide*. Cambridge University Press.
- Oleksy, W. Just, E. & Kling, K. 2011. "Gender issues in information and communication technologies (ICTs)". *Journal of Information, Communication and Ethics in Society*, Vol. 10, No. 2, pp. 107-120.
- Skalli, L. (2006). "Communicating Gender in the Public Sphere: Women and Information Technologies in the MENA". *Journal of Middle East Women's Studies*; Vol. 2, No. 2, pp.35-158.
- Urquhart, C. Liyanage, S. & Kah, M. 2008. "ICTs and poverty reduction: a social capital and knowledge perspective". *Journal of Information Technology*, pp. 203–213. doi:10.1057/palgrave.jit.2000121.
- Prasad, K. 2008. "Gender-Sensitive Communication Policies for Women's Development: Issues and Challenges". In K. Sarikakis and L.R. Shade (Eds) *Feminist Interventions in International Communication: Minding the Gap*. Lanham, MD: Rowman & Littlefield.
- Ridge, N. 2009. "The Hidden Gender Gap in Education in the UAE. Dubai School of Government". *Policy Brief*, No 12.
- Samulewicz, D. Vidican, G., & Aswad, N.A. 2012. "Barriers to Pursuing Careers in Science, Technology, and Engineering for Women in the United Arab Emirates". *Gender, Technology and Development*. Vol. 16, No. 2, pp. 125–152.

- Sassen, S. 2002. "Towards a Sociology of Information Technology", *Current Sociology*, Vol. 50, No. 3, pp. 365–388.
- Sassen, S. 2004. "Towards a technology of Information technology". In Avgerou, C., Ciborra, C. and Land, F.(eds) *The social study of information and communication technology: innovation, actors and contexts* (pp. 77-103). Oxford; New York: Oxford University Press.
- Shade, L.R. 2002. *Gender and Community in the Social Construction of the Internet*. New York: P. Lang.
- Shakir, M., Shen, K., Vodanovich, S., & Urquahrt, C. 2008. Exploring Women's Experience of IT in the UAE. Proceedings from The European and Mediterranean Conference on Information Systems (EMCIS 2008). Dubai, UAE, 1-10.
- Shapher, V., Urquhart, C., Shakir, M. 2010. "Same but different: Understanding Women's experience of ICT in the UAE". *The Electronic Journal on Information Systems in Developing Countries*. Vol. 40, No. 4, pp. 1-21.
- Skalli, L. 2006. Communicating Gender in the Public Sphere: Women and Information Technologies in the MENA Region, *Journal of Middle East Women's Studies*. Vol. 2, No. 2, pp. 35-59.
- Sokol, D., & Sisler, V. 2010. "Socializing on the Internet: Case Study of Internet Use Among University Students in the United Arab Emirates". *Global Media Journal*, Vol. 9, No. 16.
- Touati K. (2008). "The information technology and communication (ICT): An opportunity for the development of the Arab world", *Geography Society Economy*, Vol. 2, No. 10.
- United Nations Development Program (UNDP), 2013. "Human Development report: The rise of the south, Human progress in diverse world". Accessed at [http://hdr.undp.org/sites/default/files/reports/14/hdr2013\\_en\\_complete.pdf](http://hdr.undp.org/sites/default/files/reports/14/hdr2013_en_complete.pdf) [May 2016]
- United Arab Emirates National Bureau of Statistics. (2011). Population Estimates 2006-2010. Retrieved from <http://www.fcsc.gov.ae/EnglishHome/tabid/96/Default.aspx#refreshed> [July 2016]
- United Nations Development Program (UNDP). (2015). Human Development Report 2015. Retrieved from [http://hdr.undp.org/sites/default/files/2015\\_human\\_development\\_report.pdf](http://hdr.undp.org/sites/default/files/2015_human_development_report.pdf) [August 2016]
- United Nations Public Administration Country Studies (UNPACS). (2014). E-Government Survey 2014. Retrieved from <https://publicadministration.un.org/egovkb/en-us/Reports/UN-E-Government-Survey-2014>
- Van Dijk, J. 2006. *The network society: social aspects of new media*, Thousand Oaks, CA: Sage Publications.
- Van Dijk, V. & Hacker, K. 2003. "The Digital Divide as a Complex and Dynamic Phenomenon". *The Information Society*, Vol. 19, No. 4, pp. 315-326.
- Wilson, E. (2004). *The information revolution and developing countries*. Cambridge, Mass.: MIT Press.



World Bank Open Data (2014) Labor force participation rate, female (% of female population ages 15+) (modeled ILO estimate)  
<http://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS> [ June 2016]

World Bank Report (2012). "Gender Equality and Development in the Middle East and North Africa Region: Capabilities, Opportunities, and Participation". A companion Report to the World Development Report 2012. Retrieved from  
<http://documents.worldbank.org/curated/en/160291468299194622/Capabilities-opportunities-and-participation-gender-equality-and-development-in-the-Middle-East-and-North-Africa-region> [ July 2016]

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