

**IMPACT OF NEW INFORMATION TECHNOLOGIES ON WOMEN'S LIVES AND  
LEARNING IN THE UNITED ARAB EMIRATES**

by

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## ABSTRACT

The purpose of this study was to shed new light on how young female students view information technology (IT) as it pertains to their perceptions of themselves as modern Muslim women living in a global society. The research was further designed to reflect on the future of IT in higher education and to analyze how IT-based knowledge is being used in the United Arab Emirates (UAE). The study also aimed to provide a detailed perspective on how the Internet has affected some UAE women's educational and career aspirations.

The impact of IT on higher education in developing countries has been nothing short of astonishing. The Internet has proven to be the favoured milieu for growth in education and careers in the UAE, but as the repercussions of decades of revolutionary changes are felt by all segments of the society, academics continue to question the opportunities and threats inherent in the instruction and use of these applied technologies.

The researcher employed a qualitative methodology and interviewed sixteen females from the UAE. Some women were nationals living in the UAE, while others resided in neighbouring Arab countries or the United States. The interviews were done on an Internet chat-line (on the MSN Messenger platform). The primary data used in this study was collected by a UAE-born, Muslim female researcher who earned the trust necessary to obtain privileged access to otherwise guarded Muslim female respondents. Moreover, because the UAE continues to be in the midst of considerable change, these data provided a snapshot of a society at an important moment in the evolution of its educational institutions.

The researcher noted two types of online learning as described by the interviewees: the formal type (under the auspices of a facilitating institution) and the informal type (accidental learning done by the autodidact and the casual web surfer). Most UAE women were informal online learners, but some had chosen to formalize their education and loved the sheer convenience of pursuing degrees from home.

Both formal and informal online learning are considered types of distributed learning, as is learning in a traditional face-to-face classroom setting. The boundaries of the distributed learning environment can stretch to include cyber cafés and public libraries with Internet kiosks. Distributed learning opens doors for non-traditional students who work full time or have families to care for, and it brings quality educational choices to those who might otherwise never have the freedom to travel in pursuit of their educational goals.

The model Figure 4, as detailed in Chapter 8, concretizes the level to which religion, government and institutional policy and practices have challenged or facilitated the process of building a thriving culture of distributed learning in the UAE. In the UAE educational context, distributed learning is at the centre of three concentric circles, indicating the forces shaping education in the Emirates: the outermost circle reflects the pervasive role of religion in the society, the next circle indicates the role of government, and the final circle represents institutional policy and practice. The three overlapping circles at the centre of Fig. 4 portray “informal” online learning, “formal” online learning and the traditional face-to-face environment. As more traditional classrooms incorporate Internet technologies into their

curriculums, the boundaries between these settings for distributed learning begin to blur and, as the study indicates, broad-based access to uncensored global information becomes an everyday occurrence for the UAE's religiously observant population.

## TABLE OF CONTENTS

ABSTRACT	ii
LIST OF TABLES	viii
LIST OF FIGURES	ix
ACKNOWLEDGEMENTS	x
DEFINITION OF TERMS	xi
 CHAPTER ONE: ONLINE LEARNING IN THE UAE	 1
INTRODUCTION	2
Purpose of the Study	2
Technology and the UAE	6
Significance of the Study	7
Overview of the Thesis	8
 CHAPTER TWO: INFORMATION TECHNOLOGY IN HIGHER EDUCATION AND WOMEN	 10
THE INTERNET IN HIGHER EDUCATION AND VIRTUAL UNIVERSITIES	10
Struggles	12
The Increase in Online and Distance Learning	13
Expertise in Information Technology: Professor vs. Student	15
experiments with Information Technology	15
INFORMATION TECHNOLOGY AND THE WOMEN OF THE THIRD WORLD	17
Women's Performance	18
Empowerment	20
Muslim Women	20
SUMMARY	22
 CHAPTER THREE: METHODOLOGY	 24
RESEARCH DESIGN	24
Method	24
Interview Process	25
METHODOLOGICAL CONSIDERATIONS	26
Inherent Biases	29
Data Analysis	29
Reliability	30

CHAPTER FOUR: UNITED ARAB EMIRATES HIGHER EDUCATION	32
INTRODUCTION	32
Education	32
Brief History	35
Private Higher Education	38
Information Technology	39
SUMMARY	41
CHAPTER FIVE: STUDY PARTICIPANTS	42
PROFILE	42
participants 1.	42
participants 2.	44
Participants 3.	46
Participants 4.	47
Participants 5.	49
Participants 6.	51
Participants 7.	52
Participants 8.	54
Participants 9.	56
Participants 10.	58
participants 11.	60
Participants 12.	61
Participants 13.	63
Participants 14.	66
Participants 15.	67
Participants 16.	69
SUMMARY	70
CHAPTER SIX: PRELIMINARY ANALYSIS	72
CONTEXT OF THE INTERVIEWS	72
Establishing a Rapport with Participants	73
Problematic Issues During the Interview Process	73
The Online Chat Environment	74
The Unique Lexicon of the Chat Environment	75
The Internet in a UAE Context	76
Efficacy Of The Chat-Line As An Interview Tool	76
SOCIAL DEMOGRAPHIC FACTORS COMMON TO PARTICIPANTS	77
Thematic Overview	79
SUMMARY	94

CHAPTER SEVEN: THE TWO TYPES OF ONLINE LEARNING	95
FORMAL ONLINE LEARNING	96
The Ideal Character for Formal Online Learning	97
The Ideal Facilities For Formal Online Learning	97
The Ideal Instructor for Formal Online Learning	98
The Ideal Curriculum for Formal Online Learning	100
The Ideal Facilitator/Institution for Formal Online Learning	101
Positive Features of Formal Online Learning	102
Negative Features of Formal Online Learning	103
INFORMAL ONLINE LEARNING	105
The Ideal Character for Informal Online Learning	106
The Ideal Facilities	108
Positive Features of Informal Online Learning	109
Negative Features of Informal Online Learning	109
GENERAL CONCLUSIONS ABOUT THE TWO TYPES OF ONLINE LEARNING	110
CHAPTER EIGHT: ONLINE LEARNING ISSUES IN THE UNITED ARAB EMIRATES	111
Sixteen Respondents	111
Framing Online Learning	111
ISSUES FOR THE FUTURE	112
Religion/Culture	113
Government	117
Institutional Policy and Practice	119
Future DISTRIBUTED LEARNING	121
REFERENCES	125
APPENDICES	133
APPENDIX A – INTERVIEW QUESTIONS ASKED OF PARTICIPANTS	133



**LIST OF TABLES**

1.	Reasons for Using the Internet	78
2.	Participants' Most Common Reason for Using the Internet	79
3.	Motivating Factors In Participants' Education Choices	93
4.	Participants' Reasons for Switching Between Online and Face-to-Face Learning	94

**LIST OF FIGURES**

1.	Age Range of Participants	77
2.	The Varieties of Online Learning and Required Elements for User Satisfaction	96
3.	The Four Levels of Internet Self-empowerment	106
4.	Forces shaping the future of Distributed Learning in the UAE	112

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Undertaking an academic project devoted to researching educational opportunities for Muslim women took on a greater importance for me following the events of September 11<sup>th</sup>, 2001. As the attention of the world began to focus on the wrongs of the repressive Taliban regime, I saw an urgent need to balance the portrait of women in Afghanistan with facts about the successes other Muslim countries have had in supporting the intellectual freedoms and educational aspirations of their female citizens.

I offer my deepest respect to Shaikh Nayahan Bin Mubarak Al Nayahan, Minister of Higher Education and Scientific Research for the United Arab Emirates, who has been in every sense a pioneer of the higher education system in the UAE. His Excellency has been tremendously supportive of me personally during this process, and his open-mindedness and understanding of women's issues has been an inspiration.

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## DEFINITION OF TERMS

### Abbreviations used in the interviews:

**S** = Subha Al Shamisi (the researcher)

**R** = Respondents (the interviewees)

- Cyberspace:** Term coined by science fiction author William Gibson in his book "Neuromancer" about the metaphoric world where people interact electronically. The terms 'cyber' and 'virtual' are used interchangeably to mean anything that exists in the digital domain.
- Emirati:** Name given to a person born in the UAE (see also *UAE national*, below).
- Emoticons:** An ASCII display of emotions used in E-mail and newsgroups. Sometimes called smileys.
- IRC:** The abbreviation for Internet Relay Chat -- a live party-line chat where users are grouped by common interest.
- Lurking:** Anonymously monitoring USENET newsgroups or IRC chat sessions without posting comments of your own.
- Netiquette:** Cyberspace etiquette and manners.
- Newbies:** New Internet users.
- RSI:** Repetitive Stress Injuries, such as those suffered by frequent computer users (these may include Carpal Tunnel Syndrome, back problems or eyestrain).
- Search engines:** Electronic directories on the Web that search for sites and homepages based on keywords input by the user. Webcrawler and Yahoo! are two popular search engines.
- Spam:** Useless information -- the online equivalent of junk mail.
- Surfing the Net:** Aimlessly bouncing around the Web, whether through search pages or hyperlinks.
- UAE national:** Name commonly given to native-born UAE citizens, used to differentiate between persons of local origin and the large contingent of expatriates working in the UAE.

**Usenet:**

Also known as news-groups or net news. More than 15,000 bulletin-board-style discussion groups on every conceivable topic.

## **CHAPTER ONE**

### **ONLINE LEARNING IN THE UAE**

As in the rest of the world, women in the UAE have turned increasingly to applied technology education programs to better prepare themselves for the workplace challenges of the 21<sup>st</sup> century. Women comprise a significant portion of the workforce in the UAE (as they do in Western nations), but unlike other countries, some fundamental socio-cultural realities in the UAE have led to the accelerated implementation of Web-based technologies.

Traditional Muslim families have often been disinclined to allow unchaperoned females to pursue higher education abroad, thus necessitating alternative delivery methods for learning. Almost every household in the UAE has access to a computer and the Internet, though some still approach the new technology with trepidation. Females have embraced technology education in the UAE, perhaps because of the obvious career benefits gained through professional-level training. Traditional or not, even the strictest head of a UAE household cannot argue with a female's need to intellectually better herself and raise her status as a professional in the community, especially if, as in some fields, her work might be conducted entirely at home.

The site selected for this research was the United Arab Emirates (UAE), a Middle Eastern nation, which, at the end of 2001 celebrated the completion of its first 30 years as an independent federal state. Comprising an area of 83,600 square kilometres, the UAE was

formerly known as the Trucial States, controlled by Britain until the late 1960s. The current federation of seven emirates (equivalent to states or provinces) was formed in December, 1971. The population of the UAE, according to the *United Arab Emirates Yearbook 2000/2001*, was last estimated to be around three million, with a rate of growth measured at 6.5 per cent per year. The population has grown ten-fold since 1971, and the country has witnessed dramatic changes as revenues from oil and gas production were poured into the creation of a modern infrastructure. In three decades, the population base also underwent radical changes as the formerly nomadic people settled in cities for the first time in centuries. In 1971, approximately 98 per cent of the citizens were illiterate, with most having been educated only through the teachings of the Holy Qu'ran. A very small percentage of individuals (usually males) had opportunities to study outside the UAE, but, even then, only a lucky few had the money and support to pursue educational opportunities outside the Middle East. As stated in *United Arab Emirates: a new perspective* (2001), "the process of change has taken place against a backdrop of social stability and political continuity that is all the more remarkable because of the upheavals and conflicts that have affected other parts of the Arabian Gulf region" (Al Abed & Hellyer, 2001, p. 6).

#### **PURPOSE OF THE STUDY**

The spark that ignited the researcher's desire to undertake this study was the sight of several UAE newspaper articles claiming use of the Internet was having a detrimental effect on the cultural and religious values of the nation's young women. Since the researcher's own experience did not show evidence of any moral or religious decay as a result of prolonged Internet exposure, it seemed likely that other UAE women, if

interviewed, might have had experiences which also challenged the validity of the claims made by the local newspaper writers. Academic research offers the most convincing proof of the erroneous nature of whatever data was supplied to the aforementioned journalists.

Information Technology (IT) has had a major impact upon higher education institutions in the UAE, both in terms of curriculums and how they have been offered to students. As in the rest of the developed world, more and more programs in the UAE have been offered online. In North America, the largest private post-secondary institution is the University of Phoenix Online, which claims to offer the same high quality education as that provided by conventional post secondary institutions, but in a more convenient format, since the student is able to work from home when time is available. Beyond the logistical advantages of online delivery, there have been further benefits for female students in the UAE who have chosen to study online. Many potential students from Muslim families have been able to overcome cultural obstacles that, in the past, have discouraged them from acquiring an education. There has been a growing awareness among citizens that petroleum resources cannot last forever, and the leaders have addressed this inevitable outcome by investing billions of dollars in the high-tech education of young people. With so many Western high-tech companies seeking penetration in foreign markets, there is a strong desire to foster IT education partnerships with institutions of higher learning in the UAE.



Given the lofty claims of institutions like Alberta's Athabasca [online] University, it is worth examining whether programs delivered in an online format have been able to meet the goals of post secondary education. When students are geographically isolated and *never* come together to discuss issues face-to-face, under the guidance of an instructor, have they had adequate opportunities for socialization or learned as effectively as students in a formal classroom setting?

As profound as changes in the mode of delivery of education have been in the Western world, the effects they have had in the UAE may have been even more resonant, because additional cultural factors come into play. Recognized as an independent country in 1971, the United Arab Emirates was British-ruled territory that achieved great wealth when oil was discovered in the latter part of the 1950s. As a traditional Islamic sheikhdom, the dichotomy that exists between the ancient culture and the modern commercial enterprises is apparent. As oil revenues skyrocketed in the late 20<sup>th</sup> century, the government gained the means to embrace new technology, with an eye towards enhancing education. Citizens were given free education (from primary through tertiary, all the way to Ph.D.) and the country took a very positive attitude to technology.

Males and females, for the most part, attend gender-segregated schools in the UAE, and at some levels, women have cultural and religious restrictions on their ability to pursue higher education abroad. Because many women have not been given permission from their families to leave the country to pursue a Western education, the concept of Internet-

based learning has become particularly attractive. With these cultural considerations in mind, this study focused on the impact of IT upon 16 women from the UAE.

There were early indications that the prior education of most Western students contained elements which contributed to form a broad foundation of critical thinking skills that allowed Western technical schools to make judicious use of online training materials within their programs. By contrast, there was some question as to whether or not the traditional Islamic education, though valuable in and of itself, adequately equipped students in the UAE with the independent thinking skills necessary for effective online learning. As all Web-based courses have been offered in English, how likely is it that ESL (English as a Second Language) students using the Internet have developed sufficient knowledge, “cognitive” abilities, and “academic language skills”?

Can the Internet be used to fit a Western curriculum to other *cultures*, as opposed to other *locations*? The technology might work just as effectively in one country as another, but what ripple effects have been created in the society? Created to offer a wide range of Western programs in an online format, the recent development of Dubai Internet City in the UAE has shown the importance of framing programs in the cultural context of the Arabian Gulf, especially as the emphasis has shifted from the technical to the applied.

Students in the UAE have been able to access massive amounts of information on the Internet, but it has been difficult, if not impossible for them to recognize, choose and mirror that information in English and then relate it to their own culture. Have the online

courses offered by Western educational institutions been built around examples and case studies meaningless to students in the UAE? Many technical schools in the West have begun to offer programs cooperatively with corporate partners such as SUN Microsystems. Schools benefited from donations of money and hardware, and in return, corporate partners have supplied part (or, in some cases, all) of the curricula used in the programs. In times of funding restraints, technical schools have needed inexpensive access to corporate curricula in order to keep programs relevant to the current and future needs of the job market. But the question arises, have these new programs, with their substantial corporate content, adequately fulfilled the traditional goals of education, and equipped students with a broad foundation that goes beyond mastery of a vendor's product line? With full government support and zero funding-raising needs to be met, the UAE IT education curriculum has been subject to considerably less corporate influence from private sector hardware donors than public institutions in North America and Europe.

### **TECHNOLOGY AND THE UAE**

Emergent economies are seemingly in a constant struggle to overcome shortages in human resources, natural resources, and technology. New technologies have highlighted the need for new and more specialized institutions, and these new technologies have created opportunities for new knowledge construction and social mobility.

The UAE is still a developing nation, and government policies have intended to bring about progress while confirming traditional values. In the global economy, developing societies cannot afford to isolate themselves from educational and technological advances

taking place all around them. The UAE has the financial wherewithal to make a concerted effort to improve its status through major investments in the development of socioeconomic and technological infrastructure. To ensure plans are successfully implemented, the UAE has acknowledged an urgent need for highly trained and qualified UAE nationals in all sectors, not just Information Technology.

At the time of this study, there were three 'bricks and mortar' institutions in the UAE: the United Arab Emirates University (UAEU), the Higher Colleges of Technology (HCT) and Zayed University for Women (ZU). When the first of these, the UAEU, opened in 1977, there was no IT curriculum or computers for student use. By the time Zayed University opened in 1998, the proliferation of (and dependence on) technology had grown exponentially. Clearly, technology played a central role in development of higher education in the UAE.

#### **SIGNIFICANCE OF THE STUDY**

This study has attempted to give a comprehensive analysis of how IT-based knowledge is used in the UAE, an Islamic country that has the wealth to acquire the best technology the world has to offer. The study has aimed to provide a historical perspective on the growth of IT education in the UAE.

Furthermore, the research was designed to shed light on how young female students perceive IT, and what it has meant to their educational aspirations. The primary data was collected by a UAE-born, female researcher who earned the trust necessary to obtain privileged access to otherwise guarded Muslim female respondents. Moreover, because the UAE continues to be in the midst of considerable change, this data provided a

snapshot of a society at an important moment in the evolution of its educational institutions. This study has also provided anecdotal information that supplements UAE government data.

## **OVERVIEW OF THE THESIS**

The purpose of this study was to focus on the impact of IT upon the women of the UAE. Chapter One has described the general background information and purposes of the study. Chapter Two presents literature related to Information Technology in higher education and women. Chapter Three introduces the reader in detail to the methodology used in the study, as well as the segment of population who participated, the design of the study and the interview process itself. Chapter Three goes on to describe the theory behind the interview methods used in this study. Chapter Four gives a brief history of the higher education system in the UAE and introduces some of the nation's public and private institutions.

Chapter Five offers the reader a detailed portrait of each participant through quotes chosen to reflect who they are and what is important to them. Chapter Six provides a brief synopsis of the social demographic of the interviewees, to give a general overview of the context and the main themes that emerged from the data analysis. Chapter Seven focuses on participants responses to interview questions 3 through 6. It goes on to present a detailed description of the two types of online education referred to in the preliminary analysis, and gives contextual relevance to the way the choice of educational style has affected the lives of study participants. Chapter Eight outlines unique online

learning issues encountered in the UAE. Finally, this chapter seeks to locate participants' words in a broader model that has the potential to frame the future of online learning.

## **CHAPTER TWO**

### **INFORMATION TECHNOLOGY IN HIGHER EDUCATION AND WOMEN**

Advances in IT in the last decade have dramatically transformed the way people live, work, learn, communicate and do business. Scholars from all over the world have begun to focus on the philosophical aspects of technology in higher education, and how IT will affect present-day and future online campuses. The collected viewpoints of these theorists show information technology empowering women and opening doors in Muslim and Western societies.

In this chapter, I examine the literature related to IT, virtual universities, online and distance learning and women's participation in IT in Third World countries. This permits me to show the growth of IT in the developing world in recent years and the way in which women's roles in IT education and technology-based careers have transcended stereotypes, for both females and Muslims.

#### **THE INTERNET IN HIGHER EDUCATION AND VIRTUAL UNIVERSITIES**

The Internet has become an integral part of many educational institutions, allowing students to participate in degree programs where they may never come into direct contact with their instructors (Milone, 1997; Thurow, 1999). Through the use of information systems (these include computer conferencing, e-mail, and Internet-based learning operations) courses in distance learning as well as generalized support for standard courses in colleges and universities have opened new frontiers for tertiary education.

The virtual university has reduced the cost of obtaining a post-secondary degree, argued Daniel (1997). He referred to the Open University in the United Kingdom, accredited in 1969, and claimed its public expenditures per student are about the lowest in Britain, while it still ranks in the top five universities for academic standards. In 1993, it had 84,000 undergraduates: 30,000 of whom were taking single courses and 8,000 post-graduate studies (Perrin, 1995). As of 1997, the Open University offered 250 courses in its catalogue, and at least two million people have 'attended' the university by participating in one or more of its programs.

On the subject of higher education infrastructure, recent writings by Twigg (1994) embrace an enhanced distance-learning model. She argues that campus-based, lecture-arbitrated education limits access in the very ways that have led to the increased use of distance education. The physical plant, in her model, will vanish in importance, as a network-based national infrastructure becomes more available. Twigg predicts replacing the existing campus-based infrastructure with an infrastructure that is entirely electronic and accessible to anyone with a computer and Internet access. Her suggestion is that in this model, instructors and students will have greater control of their learning situations. While increased use of technology might augment campus-based instruction, the resulting increased control of learning situations would necessarily be accompanied by a concomitant decrease in the personalization of educational services. In my opinion, online learning will never completely replace traditional classroom learning environments, although it may have a particularly prominent place in developing countries.



## Struggles

Even though most educators generally appear to support the increasing use of technology in colleges and universities, many are struggling to come up with suitable ways to use it. They have argued for balance in the development of communication and curriculum with the acquisition of new information-technology skills (Fulton, 1998). Using technology to duplicate traditional “face-to-face classroom” is a waste of time, energy and financial resources (Palloff & Pratt, 2001). Like many educators, they see technology as a vehicle to assist institutions and their faculties in reaching students who live in remote areas and who have no other means to educate themselves. Like many educational formats, the practical, physical applications of computer technologies and the effectiveness of the World Wide Web vary with the abilities of instructors, with school support, quality of software, and access to the technology (Fulton, 1998). The rapid growth of the Internet has fed the need for access to larger quantities of information, which has in turn invited an examination of the applicability of this technology across curriculum lines.

Controversy exists about the practical aspects of access for all students and about the reliability, validity and value of the information gained through Web use (Fulton, 1998). Burbules & Callister explore the twin dilemmas of access and credibility as it pertains to Web-based learning, focusing on questions such as access *for whom* and access *to what*? They raise serious concerns about the degree to which increased reliance on new technologies has the potential to exclude individuals from education. To be left out of the information ‘loop’ in the educational realm likely means students will go on to face other serious limitations as they try to build a career. Web-based learning is an extremely complicated process. It requires access to and familiarity with computers and Internet, but

also in the way students go on to make sense of the sea of information available online. Students who succeed in online learning have in common certain characteristics, skills, attitudes and experiences that allow them to maximize the potential of what they learn and what it means in the larger context of their society. "The Internet is a vast, complex and flexible information and communication medium" (Burbules & Callister, 2000 p. 16).

### **The Increase In Online and Distance Learning**

"With [the] growing popularity [of] online learning and [its] existing reach, the Internet now presents the greatest communications medium ever created," claimed the *Times Higher Education Supplement* (2001, p. 3). With an estimated 180 million users and more than million-registered Web sites, "the Internet's once-steady flow of information has turned into a formidable tidal wave." The use of the Web is growing at an unprecedented rate (estimated at between six and twenty percent per month), but some argue that if socialization and the changing attitudes of learners are indeed important components of the learning process, then Web-based learning might not be appropriate for everyone (Jolliffe et. al., 2001, p. 6).

Distance learning, extended by the use of the Internet, has also been a target for criticism in recent years. As early as 1993, Peterson's College Guide listed some 93 "cyberschools", but by 1997, that number had increased to almost 800 (Gubernick & Ebeling, 1997). Currently, 55 percent of the 2,215 four-year colleges and universities in the United States are offering courses through distance learning systems, and more than a

million college-aged students are participating in virtual classroom courses (Gubernick & Eberling, 1997). The University of Phoenix is now the largest private university in the USA, with an enrolment of 65,000 students -- 10,000 of which are exclusively learning online. "The single greatest impact of the university has been on rival traditional schools which vilify it as the unwelcome future face of Higher Education" (Breen et. al., 2001, p. 96). Blackboard claims 3,300 institutional licensees and WebCT boasts of having six million student accounts (Foreman, 2001). The European Commission has also adopted a 13.3 billion dollar plan that will promote online education (Brichard, 2001). In the UK, the Dearing Report predicted that "by the year 2005/06 every student will be required to have access to their own portable computer" (National Committee of Inquiry into Higher Education, 1997, p. 213).

Though distance learning has been viewed as a means of delivering more economical and efficient education to a varied population, it has also been criticized as a watered-down version of what can be achieved in college settings. Furthermore, concerns have been raised about delivery protocols and widespread access (Gubernick & Eberling, 1997). Scholars are alarmed by the Internet and fear those institutions which are too reliant on it risk "dehumanizing the learning process" (Katz and Associates, 2000, p. 113).

In order to understand the confidence students have in each process and the variety of viewpoints on the subjects of local and remote access systems, Spooner *et alii* (1999) studied ratings of students in distance learning and on-campus courses. The study measured access and the point of view of the students as it pertained to the efficacy of the

educational model. Results suggested that a broad number of students are accessing remote learning or off-site classes, and that outcomes based on student perspectives in year-end course evaluations indicated there were no significant differences in overall course evaluations based on the on and off-site comparison (Spooner et. al., 1999).

### **Expertise in Information Technology: Professor vs. Student**

The fact that students are frequently more skilled in the area of technology and computer use than their educators is another common concern. In general, faculty and administration at many institutions have struggled to get up-to-speed with students. As a result, many universities and colleges employed students to design Web sites, to introduce elements of technology to them and provide support for faculty integration of the Web into their instructional models (Fiore, 1997). One obstacle to more successful use of technology for teaching, suggests Bates, is this lack of technical skills. "Students often have more advanced computer skills than their professors" (Bates, 2000, p. xiii). Some theorists have argued, though, that relying on student Web designers for technical support may be disadvantageous because it can lead to inconsistencies, site maintenance problems and a continued disparity between faculty knowledge about Web use and expectations of student use (Fiore, 1997; Stafford, 1997).

### **Experiments with Information Technology**

Literature on this subject is also devoted to examining variations in perspective on the use of the Web in support of colleges and universities and their distribution of necessary information. Like many universities, the University of Baltimore has a Web site that

provides for dissemination of information through a database support system (Ambrose, 1996). Called E/Street, the university Web site provides a map of the city, the university, and class areas, and also promotes an understanding of Web use within the university setting (Ambrose, 1996). The site was developed to focus on the positive and attractive aspects of the University, and provides basic instruction on how to access the Web, so students can maximize their benefits towards scholastic achievement, while both the site and the institution seek to combine elements of a liberal arts education with high technology (Ambrose, 1996).

Similarly, law schools across the USA have developed Web sites in order to bring students into their programs at a time of falling application numbers (Klein, 1996). The law schools not only utilize Web sites to convey information about the institutional atmosphere and common state and federal legal issues, but many sites also provide links to useful legal resources in the community and seek to promote a greater level of interaction for students and others with more informal educational goals (Klein, 1996). Critics suggest certain technologies separate professors and educators from students and remove the elements of discourse and interaction necessitated by the educational process. At the same time, it has also been noted that the uses and successes of Web site educational programs have been overemphasized by education professionals, and that the relationship between computer technology and television has turned the education process into the same type of immediate gratification delivery system that television represents (Davidson, 1996). While it is important to teach technologies and improve the use of computers, educators should not replace direct instruction with the seeming

simplicity of Web technology. "As the new technologies open up new opportunities, they also create new divisions, new disparities and cultural hegemony," argues MacKeogh, (as cited in Curran, 2001, p. 165).

Some theorists suggest the continued use of Internet access and Web sites will undermine the educational process by preventing students from pursuing knowledge through books (Sebastian & Howard, 1997). It has also been argued that educational formats need to be accessible to all students at all times and the premise that computer technologies will be available to all students regardless of socio-economic background is a problem in this discourse. While it is evident that not all students have computer access, there is a growing need for instruction in the application of new technologies at the primary school level and onward.

#### **INFORMATION TECHNOLOGY AND THE WOMEN OF THE THIRD WORLD**

Contrary to perceptions such as those in the UAE newspaper articles which sparked this study, women in the Third World are capable of learning and being productive in science and technology, with a small number achieving success at the highest levels. However, women lack the opportunities to be involved in the development of science and technology. Without government support, women in many Third World countries must identify their own obstacles in order to create a better understanding of what they must do to progress in the fields of science and technology. On a local level, women need to be much more focused on the development of female professionals in the field of higher technology. Internationally, the involvement of women in information technology is

controlled by the impact of social and economic policies in each Third World country (Faruqui, et. al, 1988).

The position of women in science and technology is mostly linked to formal and informal norms concerning the social status of women. "Does technology work for women, too?" asks Lilia Oblepias-Ramos, Executive Officer, Asian Alliance of Appropriate Technology Practitioners. She states there are millions of women in the third world whose needs for technology are only now being recognized. According to a report from the mid-decade conference held in Copenhagen on the United Nations Decade for Women (1975 –1985), "little or no positive improvements had taken place since the beginning of the decade." (Faruqui, et al., 1988, p. 161). At the end of the decade, however a more positive relationship existed between women and Information Technology.

### **Women's Performance**

Several studies challenge women's supposed 'technophobia' (Adam et al., 1994; Grundy et al., 1997) -- towards an interest on how women fare on the Internet, how communication and communities are prearranged, and how, on the average, sexuality and identity are defined and actualized online. Many studies reveal inequalities that remain between men's and women's access to ICT, and show the disparity of their interactions and responses when women have equal access. The challenge is to keep a balance between the 'utopia/dystopia' seesaw, an argument that often follows ICTs and the Internet (Howcroft, 1998). On the one hand, there are those who argue women have taken over the Internet and are undermining it to their own ends (Squires, 1996; Adam,

1998) and, on the other hand, some see from the dystopian perspective that women's continued oppression is only exaggerated by the power of the Internet and ICTs (Herring, 1996).

Women's participation in Information Technology is crucial if its impact is to be beneficial (Balka & Smith 2000). Intensifying women's impact on Information Technology is not only a question of achieving equity within a technical field -- it is an issue of quality of life for women around the world. Female computer scientists and engineers have made many extraordinary contributions, but the ramifications of this have not yet been significant enough to assure that women's needs are regularly taken into account, that women's abilities are seen as essential to the field, and that inspiration for new technologies comes from women's needs just as often as it does from those of men. "A diversity of approaches to the study and practice of scientific and technical fields can be cultivated" (Enghagen, 1999, p. 30). Gadalla believes "there is no single reason for the under-presentation of women in mathematics, science and technology" Gadalla (2001, p. 6). There is a continuing gender gap in computer science enrolment in Canadian universities, because "women occupy 20 per cent of all computer science seats and 18 per cent of all engineering seats in Canadian universities...lower than the 38 per cent in mathematics" (Gadalla, 2001, p. 5). There is little doubt that the under-representation of women in science, engineering and technology is a world-wide problem. According to Cronin *et alii*, between 1996 –1997 in Scotland, women counted for 34 per cent of the total pool of students in higher education institutions. Of that 34 per cent, approximately 30,740 were females in undergraduate programs, with 14 per cent in the faculties of



engineering and technology, 14 per cent in computer science, 37 per cent in physical science, 44 per cent in mathematics and 63 per cent in biology (Cronin et. al, 1999).

### **Empowerment**

In the book of essays *Women @ Internet* (Harcourt, 1999), each author emphasizes the vitality of the culture of communication. The contributors demonstrate how the Internet can be used to empower women to negotiate the 'global' and make it a 'local' space, and how, on the other hand, the Internet can also be used to inform and alter certain aspects of global culture. The revolutionary potential of cyberspace lies in its ability to expose economic and political biases embedded in the culture by consolidating women's knowledge. The Internet can create new spaces in which women working within fundamentally different cultural environments can access knowledge. By uncovering links and discontinuities between the local and the global, highlighted by cyber-culture, women have the opportunity to transform and rethink the very idea of culture.

In her book *Nattering on the Net*, Spender (1996) wonders how much the Internet will live up to its potential for improving the world and how much it will reinforce gender power imbalances. Her book places more emphasis on people than computers, with a special focus on women and what needs to be put in place to build a more reasonable and equitable community for them in cyberspace, and in the rest of the world. "The design of the cyberspace environment in the twenty-first century will not only be crucial to our quality of life in general, it will be fundamental to the distribution of wealth and power" (Spender, 1995, p. 10). She argues that technology is empowering women in all aspects

of life. Her attitude towards cyberspace is pragmatic, as she asserts that cyberspace is a reality in today's women's lives.

In the beginning of the 21<sup>st</sup> century, women were excelling in business like never before. According to the National Foundation for Women Business Owners (NFWBO), as cited in Roper Starch Worldwide Inc. (2001), there are currently 9.1 million women-owned businesses in the United States, employing over 27.5 million people and generating over 3.6 trillion dollars in sales. The NFWBO estimates the number of women-owned corporations in the U.S. has grown by over 100 per cent on a national scale over the past 12 years. In generating these new opportunities for women, the main change in the global business landscape of the past decade has been the formation of a high-technology economy. "The findings from the Women in Technology survey clearly demonstrate that much more progress needs to be made before women and men are perceived as equals in the workplace," remarked James E. Copeland, Jr., CEO of Deloitte Touche Tohmatsu. He added that "the research findings provide a compelling reason for business leaders to identify and promote new opportunities for women to become technology leaders"(<http://www.ropers.com/>, 21/08/2001).

### **Muslim Women**

Muslim women have already begun to take advantage of the window the Internet provides to the outside world, confirms Janice Broadman, of the Global Knowledge for Development e-mail network. One example cited was a United Nations Development Fund for Women (UNIFEM)-sponsored "virtual working group" in which participants

used e-mail to discuss how to end violence against women. "Women's organizations are able to exchange strategies and solidarity, to use the [Inter]net to mobilize support for a case," believes Charlotte Bunch, director of the Center for Women's Global Leadership at Rutgers University. Muslim women are also utilizing video technology. The group Arab Women Speak Out has reached out to more than 20,000 women in Muslim societies with films about women who have made significant achievements. Still, the percentage of female Internet users in the Arab world is only at 4 per cent. Noeleen Heyzer, director of the UN Development Fund for women (UNIFEM) notes that bringing electronic access to most women remains a distant goal. Obstacles abound because most of the sites are in English. "There's so much on the [Inter]net, we don't know where to go," lamented Sakeena Yacoobi, who runs a school for Afghan refugees in Pakistan (UN Wire, 2/06/2000).

Using the Google search engine with the parameters "women and technology" on 12/12/2001 returned a list of 1,800,000 sites focused on women and technology. What many of the sites have in common is that they encourage women to be involved in all the various sectors of Information Technology in the global economy.

### **SUMMARY**

Educators and decision-makers have a responsibility to promote understanding regarding new technologies. In addition to offering various kinds of technical training programs as academic disciplines, colleges and universities have also been able to relate developing technologies to their own successes in this educational format and underscore the

continued efforts to integrate the Web and education development by creating and maintaining academic information Web sites of their own.

Scholars have argued that higher education should continue to support the use of interpretive visual imagery and a variety of pedagogical approaches and learning strategies, but they have also raised necessary questions about the appropriateness of Web-based technologies relative to issues of universal access, curriculum development, teaching support and increasingly flexible educational formats.

Theorists have mixed feelings about academic contributions of women in technology. Progress is being made, however, particularly in the developing world. Information Technology has generated numerous opportunities for education and training, particularly in Muslim societies, where it has been a catalyst for women's advancement in business. Depending on how women choose to use their newly acquired skills in information technology, the knowledge can have positive or negative effects on women's ability to shape their own futures. At best, technology is a tool for women to promote themselves academically and professionally, but it would be a mistake to think technology alone can compensate for a lack of other important elements, such as personal freedom and political independence.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **RESEARCH DESIGN**

Qualitative research has many names, takes many shapes and means different things to different people. Published as the use of the Internet began to explode, one comprehensive account of qualitative methodologies concluded “there have never been so many paradigms, strategies of inquiry, or methods of analysis to draw upon and utilize” (Denzin & Lincoln, 1994, p. 11 ). Qualitative researchers employ manifold methods to gather “rich, descriptive, contextually situated data in order to seek understanding of human experience, or relationship[s] within a system or a culture,” noted Silverman (as cited in Mann & Stewart, 2000 p. 151). The process of coherent induction from the data might then lead to the formation of simple explicatory hypotheses, or -- using systematic approaches such as grounded theory -- the development of complex theories, added Brannen (as cited in Mann & Stewart, 2000).

#### **Method**

While some community leaders loudly proclaimed the negative effects of IT on the traditional Islamic way of life in the UAE, this study attempted a balanced analysis of the changes in women’s attitudes, aspirations, and cultural values. The study concentrated on the impact of Information Technology on culture, education and career opportunities for women.

Participants in the study must have met three criteria. They needed to be a female, a UAE national, and a Muslim. 16 Interviews were conducted with women from five age groups (15-19, 20-25, 26-31, 32-37 and 38-43, respectively) in an effort to reflect generational shifts in knowledge and culture in the UAE. Initially it was hoped women from five generations could be queried, but the high rate of illiteracy among women over fifty rendered such a broad sample unfeasible. Primary data for this study came from the subjects' responses to interview questions. Secondary data was drawn from government documents and articles in local newspapers.

### **Interview Process**

The Ministry of Higher Education and Scientific Research in the UAE provided the e-mail addresses of twenty prospective subjects for this study. From the initial list of twenty, two women declined to participate and eighteen were successfully interviewed. Of those interviewees, two chose to withdraw from the study prior to its completion. The women were from all over the UAE higher education system and the group included both professionals and students. Initial contact with all prospective interviewees was in an e-mail outlining the intent of research and requesting their participation. The researcher furnished participants with e-mail and telephone contact information so they would have an opportunity to investigate the researcher's credentials and acquire further details about the study.

All interviews were conducted on the Internet in a chat room environment. Electronic interviewing makes use of the most interactive and direct nature of e-mail, be that either in the form of one-to-one interviewing or in the setting up of electronic focus groups. Data gathered by electronic interviewing requires no additional transcription – the text from the e-mail interviews could easily be tailored to any word-processing application or computer-based qualitative analysis package with a minimum of alteration. As well as saving the researcher time and money, this also eliminated any need for follow-up interviews, because the data that was eventually analyzed was exactly what the interviewee wrote.

#### **METHODOLOGICAL CONSIDERATIONS**

“Asynchronous communication systems with importunate textual records permit individuals alienated by time zones, work schedules, and other activities to interconnect with one another,” asserted Erickson (1999, p. 4). In spite of asynchronous communication being subject to frequent interruptions and poor topic maintenance, Herring (1999) argued the accessibility of the persistent textual record of the conversation assists participants in cognitively managing communication in a way that overcomes verbal incoherence. She believes this to be a reason why e-mail has become such a popular medium of communication. As a result, online communications result in more honest answers, especially from participants asked to reveal sensitive, personal information (Murray & Sixsmith 1998). Asynchronous electronic communication's capability to provide opportunities for mirroring and editing messages before sending them allows a closer fit between ideas, intentions and their expression in writing

(Levinson, 1990). Responding at their convenience instead of waiting their turn, so essential in face-to-face interactions, may potentially provide more equal opportunity for participation by more reserved participants (Hiltz & Wellman, 1997). Real-time, one-to-one chat was used to conduct detailed interviews by Bennett, who discovered that she preferred a chat room environment to either FTP or e-mail, because it enabled an equitable research equilibrium to be established from the beginning of the interaction. She valued immediacy of the real-time response not only for the speed with which her own inquiries could be addressed, but because it allowed a negotiation of meaning between herself and her 'co-researcher' (Mann & Stewart, 2000).

Twenty randomly chosen participants, from a list of e-mail addresses provided by the UAE's Ministry of Higher Education and Scientific Research were engaged in individual, semi-structured online conversations with the researcher. Different methods of interviewing offer various levels of qualitative depth, because depending on the interview format, participants may have more or less opportunity to answer questions in their own words. When "working online, less structured interviews with individuals are usually conducted by e-mail, or by 'chatting' one-to-one using real time software" (p. 126) such as Internet Relay Chat (IRC) (Mann & Stewart, 2000). "It is possible to achieve different degrees of balance online depending on the purpose of the study and methodological perspective of the interviewer" argued O'Connor and Madge (2000), as cited in Mann & Stewart (2000, p.153). To provide a consistent interface to the dialogues, the interviewer designed a question template, which allowed for branching based on the different anticipated responses. To make room for the possibility of totally unanticipated



responses, a general-purpose mechanism was put in place to continue the dialogue to its conclusion. The question template appears in Appendix 1.

In order to preserve confidentiality, the identities of participants have not been revealed. Instead, coded e-mail addresses were used and have been generated in the following way: a random 5-digit number was assigned to each subject, and every occurrence of the subject's e-mail address was replaced by the corresponding 5-digit number. Since there was no further need to preserve the identity of the subjects in this study, no table indicating which name is assigned to which number was kept. In this way, data remained connected to a particular person in a way that prevents anyone from determining who that person was. This level of confidentiality should be sufficient and was explained to individual subjects prior to their participation in the study. In order to develop a good template, three test runs were conducted with preliminary subjects. The results of these test runs have not been included in the study.

This study raised ethical questions from two perspectives: firstly, Western researchers concerned with collecting data from human subjects feel an obligation to fully inform those subjects of the purpose of such data collection, as well as any uses that may be made of it, and finally to allow subjects to review the data when it is personal in nature before granting permission to circulate that data. Secondly, there are additional considerations that enter the picture because subjects were UAE national women with traditional Islamic values. UAE women are by nature private, and as such, confidentiality was a sensitive issue. The women's values had to be respected. There were certain questions the researcher had to avoid asking. For example: when conducting an interview

with an Islamic woman, it would be inappropriate to ask about her faith in God or private sexual behaviour. The utmost consideration was given to their religious orientation which imposed some limits on the types of questions that could be asked. Respecting the core values of both Islamic and Western cultures was essential to the methodology of this study.

### **Inherent Biases**

I asked the Ministry of Higher Education and Scientific Research to provide me with the names of twenty randomly selected UAE women willing to be interviewed for this study. The final choice of names supplied to the researcher was at the discretion of Ministry officials. Like the participants themselves, the researcher has attended higher education institutions in the UAE. The researcher also studied in Western institutions (in both the USA and Canada) for several years. English is the second language for both the participants of this study and the researcher. During the production of this thesis, the researcher was sponsored by a scholarship from the UAE Ministry of Higher Education and Scientific Research. Since 1993, the researcher has been employed in the higher education sector in the United Arab Emirates and plans to continue on this career path upon returning home.

### **Data Analysis**

In conventional qualitative research, moving from data to theory generally involves a preliminary process of reconstituting field notes and oral data. However, there is often a debate about the ways in which spoken language, non-verbal cues and paralinguistic behaviour are transcribed and translated into text.

This was a qualitative study. Care was taken to select chat-room interviewees who were, broadly speaking, “representative” of UAE women (women with different ages, occupations and social positions), in terms of their interests, aspirations, and attitudes towards technology. Data analysis consisted of a careful scrutiny of transcripts of chat-room conversations. The data itself, in the form of chat-room transcripts, were a primary source of information on the effect of the Internet on women in traditional Islamic societies.

### **Reliability**

The data, instantaneously recorded during the chat-room sessions, was reliable in and of itself. However, doubts have arisen as to the quality and objectivity of that data. For this reason, study participants were chosen from a list of names supplied by an uninvolved third party employed at the UAE Ministry of Higher Education and Scientific Research. The Ministry official who furnished these names compiled them through a process of random selection. Moreover, in developing the question template for the conversations, the researcher took care not to lead interviewees in any particular direction. This was important for the objectivity of study. In the UAE, as in every culture, there is a tendency for subjects to give responses for which they believe the researcher is looking.

Reliability can thus be compromised when the researcher, whether directly or indirectly, reveals his or her own perspectives or biases about the matter under investigation. The researcher conducted a number of trial chat-room conversations with the goal of determining whether any potential subjective clues contained in the interviewer’s chat-room statements led the interviewee in any particular direction. The transcripts of the

trial runs were reviewed by an independent researcher with experience in the Middle East.

## CHAPTER FOUR

### UNITED ARAB EMIRATES HIGHER EDUCATION

With up-to-the-minute technologies and modern facilities at United Arab Emirates University (UAEU) in Al Ain, the women-only campuses of Zayed University in Abu Dhabi and Dubai, no fewer than eleven branches of the Higher Colleges of Technology (HCT) spread across the 83,600 square kilometer country, and given the recent arrival of many internationally accredited private institutions being established in the United Arab Emirates -- all free to UAE nationals -- it can certainly not be disputed that the youth of the UAE have ready and complete access to higher education as far as they wish to take it. Generous grants are also available for males and females wishing to study abroad. According to the UAE National Admissions and Placement Office (NAPO), out of the 80 percent of UAE nationals who graduated from secondary school in the summer of 1999, 90 per cent of the female students and 73 per cent of their male counterparts went on to take a place in higher education institutions in September of 1999.

This chapter focuses on the education of UAE nationals before and after the discovery of oil in the latter part of the 1950s.

#### Education

For centuries, the only form of education known to nomadic Gulf Arabs was the *kuttab*, tutoring sessions in which children memorized the Holy Qu'ran and learned basic writing and arithmetical skills" (Bahgat, 1999, p.128). These sessions took place in mosques or houses and could be quite informal, with boys and girls of varying ages from several families together grouped together in one class consisting of as many as 30 pupils. Once

a child was able to recite the Qu'ran completely, he or she was considered to have finished their education. The lack of writing materials meant the teacher would read aloud and the children would repeat and memorize the verses. Emphasis was on recitation, not literacy. However, the lack of emphasis on writing skills applied mainly to girls, because there was a strongly held belief that girls (many of whom would be sequestered inside the home by their families until marriage) would be more likely to attempt secretive communications with the outside world if they learned how to write. Early in the 20<sup>th</sup> century, the study of mathematics became more important in the urban areas of Dubai, Sharjah, and Abu Dhabi. The desire to equip children of both genders with skills they could contribute to their family businesses became a strong motivating factor for the rising interest in learning applied mathematics.

Moral instruction for children was usually given by example. Children were expected to emulate the behaviours and ideals of Muslim teachers and their most religiously observant family members. Children were not kept out of sight, but involved in duties and activities of the adults in the family. As children grew, they were encouraged to watch and follow behaviour they saw modeled at home and at the *kuttab*. Their teachers would not have received any formal training as educators. The job of teacher had to be earned by demonstrating both an exhaustive knowledge of the Qu'ran and a solid reputation in the community as a respectable, upstanding citizen. Parents would have paid for the tutelage of their children with "food, cloth or small domestic animals" (Heard-Bey, 1982, p. 51). Traditional education geared towards younger children was the

only form of schooling known to the people of the UAE until the 1950s. At this period in the nation's history, education was neither compulsory nor free.

Qasimiyyah school, the first “modern” school (one based not on the *kuttab*, but on a British-style system of academics) for boys was opened in Sharjah in 1953. The following year, with the help of the government of Kuwait, a similar school (known as Fatima al-Zahra) was founded in Sharjah, this time for girls. In 1958, when the country that is today the UAE was the British ruled region known as the Trucial States, the British government opened the first technical school, an event which “proved to be a catalyst for a growth of awareness and intellectual progress” (Taryam, 1987). The British Technical School was the first institution devoted to the education of adults.

Prior to the discovery of oil in 1958, the UAE lacked the economic means to provide its people the basic necessities of life. After the rise in oil prices in the 1970s, countries bordering the vast petroleum deposits of the Gulf region benefited from tremendous profits. Although oil and its revenues changed the face of the country and directly facilitated its modernization, the philosophy used to determine how the newfound wealth was distributed was rooted in the centuries-old concept of “*murūwa*” (fitness to rule). In order to prove *murūwa* to a largely nomadic, tribal population, the leaders of the UAE decided to use the oil revenues to build the country's infrastructure and undertake the establishment of a free educational system for UAE nationals. “The goal was to share oil revenues among the local population” noted Bahgat (1999, p. 128), thereby engendering an enduring perception of fairness among previously warring tribes. Since the

constitutional amendment of 1972, education for UAE nationals is free, from K through Ph.D. In some cases, students are even furnished with monthly allowances, books, and “other necessities,” and so in a very tangible way, “the creation of the public system of education can be strongly attributed to the rise in oil revenues,” as Bahgat concluded (1999, p. 129).

Education continues to play an integral role the national economic agenda. Because of high oil revenues, lack of capital funds for educational projects has not been a problem in any of the Gulf countries in the last thirty years (Bahgat, 1999). A “rapid improvement of human capital” (Bahgat, 1999, p.129) and the investment in both formal and informal education and training are considered essential to the successful development of the UAE, as El Mallakh (1981) has indicated. Education, viewed as a means to build human capital, has been consistently the highest budgeted expenditure item since the formation of the federation. Education is still considered an essential tool in developing the level of human capital needed to achieve economic progress.

### **Brief History**

Even though a young nation in global terms, the United Arab Emirates has made rapid progress towards establishing a higher education system offering diverse, high quality opportunities for UAE nationals at the post- secondary level, both inside the country and abroad.

Like most developing countries, the UAE faced many difficulties in its efforts toward economic, social, cultural and political modernization. In 1971, the Trucial States left



imperial ties behind and became known as the United Arab Emirates. At that time, UAE students found it necessary to travel abroad to pursue higher education opportunities in the hope of obtaining respected academic degrees. Five years after the end of colonial rule, the government of the UAE took the first steps towards establishing a university in the city of Al Ain. The United Arab Emirates University (UAEU) opened its doors to students of both genders in 1977. Under the fifth article of Federal Law Number 4, 1977 (p.2), it is specified that “the University is an Islamic Arab University [...] constructing its scientific identity, having its strength and roots from the Islamic values, Arabian originality and the society’s values and its traditions”. The language of instruction is Arabic, but “the university council has the right to use another language if there is a need.” In just two decades, the number of students enrolled in the eight faculties at UAEU increased from 502 (in the academic year 1977/1978) to more than 15,000 (in the first semester of the academic year 1996/1997). The various disciplines represented at UAEU are the Faculty of Humanities and Social Sciences (originally known as the Faculty of Arts), the Faculty of Sciences, the Faculty of Education, and the College of Business and Economics, (formerly known as the Faculty of Administrative and Political Sciences). In 1978, the Faculty of *Shari’ah* [Islamic Law] and Law was established, and in 1980 the Faculty of Agricultural Sciences and the College of Engineering were created. Lastly, the Faculty of Medicine and Health Sciences was founded in 1986. The first Master's Degree program was offered in the Faculty of Sciences in 1991 as an interdisciplinary program focusing on Environmental Sciences.

The same federal law that led to the inception of UAEU also allowed for the formation of the Ministry of Higher Education and Scientific Research in 1992. Federal Law Number 4 emphasized the connection between higher education and the comprehensive economic and social development of UAE society. The law concretized the government's position that higher education equips nationals with both the skill sets and the mindsets necessary to meet the present and future needs of the country. With a national population of well-educated, technologically skilled citizens, the government can court high-tech industries with confidence, commanding greater respect in business and trade circles around the world. Since its inception, the administrative goals of the Ministry of Higher Education and Scientific Research have been laying the foundations for an integrated national system of higher education aimed at unifying efforts and goals with commitment and creativity. At all times, the Ministry has focused on preserving the values and the heritage of UAE society and fostering among students a sense of belonging within their religion, their community and their nation.

Since the first four campuses of the Higher Colleges of Technology (HCT) opened in 1988, more than 8,000 UAE men and women have graduated from the HCT's various applied technology programs. With initial enrolment of 239 students at the original four campuses, the HCT has grown dramatically and today boasts 11 campuses across the country, offering a variety of programs to more than 11,400 men and women. In April 2001, over 2500 males and females graduated from the various HCT certificate, diploma, and degree programs, marking the 10th HCT graduation. Since the first graduation in 1991, 8,243 graduates have earned academic credentials from the Higher Colleges. The

HCT has built a strong reputation for producing graduates of the highest calibre who are eagerly sought by employers in the UAE and elsewhere.

### **Private Higher Education**

More than 20,000 students in the UAE have taken advantage of the rising number of privately accredited higher education institutions, according to a report from the Ministry of Higher Education and Scientific Research. In addition to the numerous private community and technical colleges spread across the country, Ajman University, the American University of Dubai, American University of Sharjah, Sharjah University, and Ittihad University in Ras Al Khaimah have all attracted students from all over the UAE and the rest of the Arab world. Private education is open to non-United Arab Emirates citizens.

For the last 13 years, the Gulf Education and Training Exhibition has also drawn representatives from hundreds of higher education institutions from across the globe. In 2001, the UAE's annual education fair was host to 245 exhibitors from institutions including the University of British Columbia. The goal of the Gulf Education and Training Exhibition is "to serve colleges, providers of technology, community organizations and prospective students in search of each other" (Exhibition Catalogue 24 – 27 April 2001, p. 3), bringing representatives from the various institutions together in a forum that focuses attention on the diverse educational needs of the United Arab Emirates and the Gulf region. Annual attendance at the exhibition includes representatives from a range of countries, not limited to those in the Arab world. Events

such as this, sponsored by the Ministry of Higher Education and Scientific Research make the UAE a leader in professional development for educators in the Middle East.

### **Information Technology**

There has been an urgent awareness in the United Arab Emirates that Information Technology must be harnessed to ensure the continued development of the country. ETISALAT (the UAE's main telecommunications provider) and the Ministry of Education and Youth have worked together to provide Internet facilities in both private and public schools. In order to help students acquire hands-on knowledge of advancements in the telecommunications sector while at the same time creating a more interactive learning environment, the ETISALAT project aimed to furnish students with access to e-mail, distance learning services and a wide range of educational and research materials.

The Internet and other Information Technology-based systems have already been put in place at the tertiary education level. The United Nations Educational, Scientific and Cultural Organization (UNESCO) has deemed the United Arab Emirates University as the leading centre for applied technology in education in the Middle East. The accolade was based on the university's success in using technology-related applications in the teaching of physics and mathematics. The UAEU teaching staff have developed specialized multimedia and Internet-based computer programs to encourage students to spend more time in the laboratories, to help them interact during class and to learn more about the laboratory research in which they are involved. Through this affiliation with

UNESCO, the UAEU has assisted several Arab universities in nearby countries like Jordan and Kuwait in developing their own customized teaching applications.

Featuring state-of-the-art communication technologies and the most current online information, Dubai Internet City has been created as an “e-learning” initiative linking educators and students in a unique global project. Leveraging its strengths on the technology front, Dubai Internet City’s Research & Development department has built a platform for the delivery of online diploma and degree courses for colleges, universities, and corporate training institutes not just in the UAE, but around the world.

Although such a facility repackages the known educational paradigm with wholly new modes of interaction and collaboration, the goal is to offer students access to information and support. The founders of Dubai Internet City designed their new e-learning platform so knowledge is accessible anytime, anywhere, and for anyone with a computer.

Ostensibly, Dubai Internet City was created for a borderless new world shaped by rapidly evolving technologies. The government and the mass media in the United Arab Emirates have been quick to portray Dubai Internet City as a living entity within a new economy that thrives on knowledge, innovation and entrepreneurial spirit.

E-Learning is the academic framework for online learning and provides a platform that facilitates online learning for all the participating universities, colleges and professional training institutions. E-Learning is a unique project that encompasses the complete academic value chain.

-From <http://www.dubaiinternetcity.com> 10/10/2001

In 2001, Internet penetration in the United Arab Emirates was eighteenth highest in the world, but the government has continued its tenacious support for educational programs

aimed at increasing computer literacy and Internet penetration beyond these rates. An 'e-government' initiative this same year promised to streamline all government processes, to provide citizens and businesses with more effective services. In all of these discussions, however, little reference was made to the role the UAE might play in the globalization of technological information.

### **SUMMARY**

Petroleum revenues and aggressive infrastructure development allowed the United Arab Emirates to establish an excellent higher education system in a relatively short span of time. The government of the UAE has taken great pains to provide men and women with equal education opportunities both inside the country and abroad. Higher education institutions have received regular equipment upgrades so that campuses have always featured the latest technologies. Most higher education facilities in the UAE are staffed by experts from all over the world, and each foreign specialist has brought cultural baggage which has unavoidably impacted the dialogue surrounding issues of curriculum development. As UAE nationals have acquired the necessary skills to take over key positions in the higher education system, the people of the country have begun to depend on home-grown experts instead of imported ones, thus adding a more indigenous flavour to a system that was essentially held over from the age of British Imperialism.

## CHAPTER FIVE

### STUDY PARTICIPANTS

This chapter will introduce each participant to the reader through quotes chosen to reflect who they are and what is important to them. I have offered some conclusions about the participants based on their responses, taking into consideration their age group, level of education, marital status and the place they obtained their education (inside or outside of the UAE).

I have decided not to correct any errors in English structure and grammar in the quotes, choosing instead to present the interviewees comments in their unedited form. Besides offering proof of participants' language skills, the interviewees responses also prominently feature the use of Internet slang and 'emoticons' (as described in Chapter 6). Although the women interviewed are all used to IT and the technical terminology used in the online chat environment, English is their second language. Many were demonstrably nervous for the early part of the interview. In rare instances where interviewees responded in their native Arabic, I have placed translation in parentheses.

### PROFILE

**Participant 1:** This participant was in the 32 to 37 year-old group, and was a full-time graduate student living in the USA. She previously studied abroad in Egypt. She was unmarried and worked in the UAE prior to pursuing her graduate studies.

She said she found the Internet most useful for promoting Islamic values and culture, discovering job opportunities, and promoting women's independence through communication and involvement in the political arena. She saw Information Technology as a tool for research, empowerment and entertainment:

[The Internet is] an informative tool assisting me to research my papers, job opportunities, and global news headlines and entertaining me. For example I play chess online. As mentioned in the previous question that Internet helped me to find university and a suitable program for my graduate degree. [...] the Internet helped me to process all my necessary papers to the universities in a very short time. I communicated to the admission offices by email and found a place to live in Washington DC while I was still in the UAE through the Internet. [...] it's a "window" to the outside world. It exposes us to the new markets and potential job opportunities in the emirates and the outside world.

She described the women of the UAE as independent, active and involved in the political arena:

We are not sitting at home doing nothing or just waiting for our husbands, fathers or brothers to come home and tell us what to do. IT has opened doors for us to take courses online and to continue our education. Not all UAE women are fortunate as me to have the opportunity to go abroad to continue their education. They use the Internet and the online universities and colleges all over the world to pursue their education. We as women have no excuse not to grasp this opportunity to educate ourselves and to have better careers. [...] I get the information first hand and I don't allow any one to dictate me. I decide what I want to add to my culture from the other cultures that I see or read on the Internet. I think IT has provided us with excellent opportunities to learn about other cultures in this wide world. [...] the Internet helps me to find out information about other women accomplishment within the UAE. Actually a month ago I was very encouraged when I read in our national news papers that 4 UAE women in Sharjah were elected to be members in the Sharjah government council. I think we have big opportunities as UAE women to build our careers even in the political arena.

Her responses on the effect of Internet on families and the subject of unsupervised children using the Internet were typical of many other interviewees:



[...] some Internet websites are not meant for children, and even if the kids have an email account they get exposed to junk mails that are send with ideas/pictures. The bottom line is Internet access is still unsafe for kids not everything is censored. [...] many of the young people in the UAE spend hours in front the computer on the Internet or playing electronic games. The parents are busy with their own lives. It has increased the time parents spend with their children. There is not much of a social life with families.

Regarding the use of the Internet to promote Islamic values and culture, her comments similarly represented the opinions of the rest of the other study participants:

[...] I have used the Internet to promote the values of Moslem women. For example, in a discussion forum in the Internet I can give my comments on issues and people reply to it. So I see the Internet as a tool that could forge new understanding of Islam and my culture. Also by creating my own website and posting it on the Internet is a promotion of who I am and where I come from.

Finally, she described her most memorable experience on the Internet to date:

“Probably opening junk email that has naked women and men in front of my boss.”

**Participant 2.** This interviewee was in the age group between 20 and 25 years old. She was unmarried and was a full-time student at a government college in the UAE where she majored in software engineering. She also worked full-time.

She saw the Internet as humankind’s greatest discovery, and made the comparison that “a computer without Internet is like a body with no soul!”

She believed the Internet had opened her mind wider and helped her to learn more effectively, and she was careful to point out that she is still learning. Making friends and learning about other cultures were important features of the Internet for her.

I started using IT seriously in college, as it was part of my major, which is Software Engineering. I developed my computer skills, in terms of typing, understanding hardware and software, and most importantly, learning and developing the use of the Internet... it opened my mind to wide horizons in which I learnt from a lot! Of course still learning.

She used the Internet to contact her grandparents in the USA every day. Internet telephone calls were yet another economic advantage for her and her family:

[For example] i was able to call my grandparents in the states, through the computer... used to call them everyday and it was cheap and convenient!

She believed students learn better in a formal classroom setting by interacting with other students and exchanging ideas and information. However, she thought that if a person had no choice but to enrol in a formal university, a respectable online institution would be better than nothing.

[...] Really i prefer to take courses in a university or college... cuz i feel that like that u learn more.. as u meet with students, and u can share and exchange ur knowledge with them.. i believe that education shouldn't just be academic.. it has to be both academic and to gain experience in life.. as a person..

She viewed online socialization as a positive thing for girls, given the unprecedented freedom to socialize with the opposite sex. Students who succeeded, she noted, were those who expressed themselves better in writing, which was a disadvantage to students who might be better at expressing themselves verbally. As most of the other respondents commented, she felt it easier to be more honest online:

[...] online socialization can give a girl a chance to speak her mind more.. maybe some girls are shy to talk in front of guys or something... hmm.. still.. I feel that face to face communication builds a strong personality, and a mature person... It depends on the girl herself {cannot generalize} but for me, I find it easier to communicate and speak my mind freely with

complete honesty. online.. [...] I think socializing online does not show the real personality of the person like some people can express themselves by writing and others can't. I think it is possible to socialize online and students can learn and share many things with each other. I think on campus some times students get jealous from each other, but online they don't know each other

She frankly acknowledged an imbalance in the amount of time she spends with people versus the time she spends online, but stated that her family gave her the freedom to be who she wanted to be:

I spend hours in front of the computer and I can go for weeks without talking to people more than minutes. [...] I can choose whatever I want but with limitation...cuz they want me to think for myself, but not doing bad things.

**Participant 3.** This woman was in the age group between 15 and 19 years old. She was unmarried and attended high school full-time. She lived in Morocco and Syria for several years when her father had diplomatic postings there.

She used the Internet to compare her culture and society with others around the world:

I usually try to find out ppl's customs and they way live and compare to my life and I try to find out about the society's culture...it is fun and a person can learn...you should try it. I'm sure you know there are societies that are more interesting than ours. In many ways for example they women dress and behave and the way men treat women and educational systems and history and of course religion...so on.

She saw the Internet as an educational tool as well as a source of entertainment:

Cyber games like playing chess scrabble and lots of music to choose from...stuff like that. Person can use net according to their needs and interests. I can meet new ppl and learn about there believes and traditions and societies. Teaching tool...tell more about that some times my friends and I we teach older ppl how to use the net and get information. What

about you interviewing me now...some kind of teaching and learning process. Mothers, fathers, uncles and aunts...I don't know how old they r, but I know they know nothing about the net and we show them how the net works. Everyone has the right to learn how to use the net..... even if it was my grandpa..... i mean mobile phone are considered as technology old ppl use them don't they !!!

She had strong opinions about the changing role of women in UAE society:

We can show ppl that we r as good and even better than men in most cases...a women can do a lot, being a mother and work in any kind of job. And know women can improve themselves by working in the field of IT. [We are] much better a women can do wonders..... we r better i mean a man won't be able to take care of a family a lone in most cases but a women CAN take care of a family alone in most cases at the same time works outside the home. Men r too lazy to search and help themselves cuz they always have somebody helping them. [...] I mentioned before net bought too much information, and we read and find out about how other ppl and cultures operate. We gals in the UAE think it's ok for a gal to have a boy friend...we want to fall in luv. Our mothers and grandmothers didn't have the freedom and the choice we have. Their parents found husbands for them. They didn't have as much tech net and other hi tech.

She viewed online learning as well-suited to women who cannot enrol in traditional universities:

U need to remember every gal has her own way of finding info... all depends on ur interest and what she wants to learn from the net...not only the net, but all technology. Courses online not for all gals... i think if a gal has a choice between net learning and going a university ...choose university, but if no choice...net learning better than no learning.

**Participant 4.** This interviewee was in the age group between 26 and 31 years old. She was unmarried and was a full-time student who also worked full-time in the engineering department of a government firm. All of her education took place inside the UAE.

She was unequivocal in her belief that IT opened new careers for UAE women:

In my opinion Information Technology opens new career for UAE women cuz everything is computerized. These days we need computer in everything. Women with computer skills and technology are the best in our society. As we can see that technology everyday is increasing so for that it is something very important in our lives. When I started I knew nothing about information technology especially the Internet. Now use it for almost everything and it is helping me to see the outside world.

She acknowledged online learning was not for everyone, particularly those lacking self-discipline:

It is easier for me to be face to face and also discuss things with my friends. [...] you can't really see the persons feelings like body language...I guess there are some students like that and maybe they socialize with each other, but I think a person must have a good self-control and knows exactly what looking for. And also I'm not sure if the UAE recognize online education.

Without formal language instruction, she saw a significant improvement in her English skills. She credited this to her time spent on the Internet:

[The Internet] had affect my English very much...it helped me soooo much in my English skills especially by using the Internet for research...it helped developed my English terminologies...actually few days ago my friends and I were discussing this matter and we all agreed that the Internet is the best English teacher for us.

For her, chatting online was a waste of time which led to misuse and, potentially, addiction:

[Chatting] most of them use it just to talk about sex and sending pictures of each other and to hack other people's computers and so on. For example one time I entered a chat coz I need some information about a country u will not believe what they were saying to me...stupid. I made a decision that I will not enter chat rooms any more...I'm fed up with it all. Actually I was sure I want to do this interview on line, but after I read your information about your research...I realized you are respectful women and doing something good for our country. You sound very naïve about chatting...chatting and Internet is very addicted especially amongst young people. The parents should be aware of what goes on inside their

kids bedrooms... The Internet is good and bad and depends on people how to use it.

She discussed plans to develop an informational website with some of her women friends:

Actually my friends and I are thinking of developing our own site. I will tell you all about it when we decide to go ahead with it. We are not sure yet...I think will be educational site about the UAE and maybe include women accomplishment in the UAE.

Every day on the Internet, she was able to discuss and compare cultures with people from diverse backgrounds. She was quick to seize these opportunities to dispel misconceptions non-Muslims had about her religion:

[...] many Islamic sites on the Internet that have interesting articles and topics. Also these sites talk about Muslims in the whole world and we can learn from each other. Also I like to learn about other religions and beliefs and learn about different cultures besides our culture. One time a man online started asking me questions about Islam and I was able to answer him. So we exchanged ideas and compare cultures. Without the Internet...I don't think I will have this opportunity. Of course you know the problem in our society many parents don't want or won't let their daughters to work or to be involved any business. I think the Internet or IT in general will open doors for UAE women to start business from home and no one can say anything about that.

**Participant 5.** This interviewee was between 20 and 25 years old. She was married and was a full-time student majoring in Management Information Systems. All of her education took place within the UAE.

She believed IT gave UAE women choices in their education and careers and exposed many of them to gender-integrated workplaces for the first time:

IT allowed the old idea that the women can just be teachers or doctors to be replaced, IT became one of the most preferred subject taught in the

UAE universities and colleges especially by the women and Emirati women is working side by side with the men in the different fields of information technologies and systems and that can be seen in the increasing number of IT graduates from UAE university and higher colleges of technology. IT is providing me an opportunity to participate in your study even when you are in Canada and I'm in the UAE. 10 years back it was rarely to hear about women studying abroad and now many have the opportunity.

She expressed a sense of competitiveness towards UAE males and acknowledged this was shared by other women she knew:

I think women are more successful than men in this field...I think women trying to prove to men they are smart and they can do anything that they put their heads into. As an IT student I feel that IT is the future of the world ... And women are more open to change and adapt new ideas than men do and that would make them preferred by many organizations and companies in the UAE and the rest of World. I think that men feel that they are always the best and they always feel that their ideas are the best... This is because they don't want to feel that they are getting the help from the women ...also they always feel that the women are lazy and impractical [...] men don't want admit that women are better than them and women work.

She described some obstacles that prevented her from traveling abroad to pursue her education:

Well I'm married and have family so I won't be able to travel abroad but if I decide to do further studying after I finish my undergraduate degree I will do it online. There are many universities offer this opportunity.

She contended that the success of online learning depends on the learner:

That depends on each student...I think it is possible but difficult. I think students can create their own communities online and chat just like you and me now. I think everything possible through the Internet as long as we know to operate it correctly. It depends on the strategy used, potential learner and on the atmosphere in which we provide the online learning we must consider that UAE is very unique culture and people here is very adaptable to new changes but we have to study the exciting system of

learning which we can say that it needs a lot of changes and a lot of effort to make it better learning.

She looked ahead to the future and saw a strong market demand for female IT specialists in the UAE:

I think women careers are being changed very much because of the IT ...more and more companies and organization are willing to ask for IT specialists especially the women ...because they tend to have higher GPAs and higher need to work. I think women need to prove to men that they are better than them. I think if women don't have to depend on men for money...they will have better freedom that's why the need to work.

**Participant 6.** This woman was in the age group between 38 and 43 years old. She was married and worked full-time. She got her degree in English Literature from the UAEU and undertook all her education inside the UAE.

She viewed the Internet as a provider of information and ideas, and found it indispensable in her career as an educator:

I'm English teacher at high school, but this year I'm working in office. I learned many new words and terms from the Internet I search many things subjects to help me with my teaching. Sometimes when I'm on the internet I see something and it gives me ideas for my students. I found a wonderful maps of many countries of the world and that helps me to print them out and give them to my students. Sometime my students teach me how to look thing up on the internet.

She found some solace on the Internet following the events of September 11<sup>th</sup>, 2001:

I think the world has judged us Arabs and Muslims as bad people because what happened in September. I wish the West would take the time to learn about us like we learn about them. So all the stuff on the Internet helped me to look at people in a different way. I don't think all Americans are bad just like we are not all bad.



The Internet helped her develop language skills, allowing her to better express her beliefs:

The internet improved my spelling and writing English and my typing skills. I love online dictionaries. The Internet has audio dictionaries where you can listen to how the words are pronounced and don't forget about the cable TV that's part of technology and the American films. I see it like anything in live...it has the bad side and the good side. The bad side of it is that our children are exposed to a lot of trash on TV and the good side is we can improve our English skills and learn more about the American. [Internet] hold my beliefs as I told you before my beliefs are stronger now because of reading about other beliefs. Maybe the Internet helped to see people with different perspective and not judge people by one individual behavior like what the West doing to us.

She was confident about the role of IT in the lives of women in the UAE and made a link between women's educational empowerment and future political involvement:

I think because this field has so many good things for girls in the UAE for example a girl with strict family...she can work from home as web design or something and also can study online line. I think IT has and will continue to open doors for UAE women in education and career and I think we will soon see women involved in politically. I'm sure you heard about the women in Sharjah. About 4 women were elected to members in the Sharjah Council and we now hope the other Emirates will follow Sharjah's footsteps.

**Participant 7.** This interviewee was in the age group between 20 and 25 years old. She was unmarried, worked full-time and had some university education, all of it within the UAE.

She perceived IT as a tool whose effectiveness depended entirely on the user:

I use IT as a communication tool and to search for information For example TV, Internet, mobiles radios and movies theaters are necessary in our life and they made our life easier... they can be used in both ways either negative or positive and that is up to us! I mean anything we can use it in a positive way or a negative way. IT is good and it helps us to

promote ourselves and to use it to build our societies. But if people miss use IT can be bad for society and for our lives.

In her view, online learning was superior to classroom learning. She also had clear ideas about what was required for success at all levels of the online learning process:

Well, in my opinion online learners do better than the students in a formal classroom... because first of all it is more convenient, it concentrates on one subject at a time, no scheduled time, more flexible and especially for the working students as they can do that in the evening! Students must be willing to take the responsibility of their own learning motivation and must designate time only for studying... English and computer skills and up to date computer system, Internet provider, software and contractor are necessary!! Students must know what they want and. I think the instructors also must have special skills to be a good online instructor. Instructors can't only post their notes on the web and that's the end of their responsibility. They must have clear and detailed directions for the students to follow. They must know exactly understand how online teaching work and must have experience in this field. Definitely it helped me a lot ... especially in reading and writing. The Internet helped me to develop my English vocabulary. Online dictionaries are wonderful and very helpful.

She believed the Internet would continue to improve UAE women's lives, both in an educational and social context:

30 years ago most of the people in the UAE didn't even know how to read and write and look at us know. Also I think the women in the UAE have good opportunities for both education and careers. I think in 10 years the majority of the school students will own their own laptop and they might have more chances to continue their education and enroll in any higher education institutions in the world without traveling abroad! I think everything will be available online for them to continue their education! I think even careers will be available for women online and they don't have to leave their homes. I think women going to have better opportunities in 10 years to do whatever they want to do with their lives. I think in 10 years time many of parents will be educated so that means they won't mind if their daughters go to work or even travel abroad to study. Our culture and lives are changing gradually.

**Participant 8.** This woman was in the age group between 38 and 43 years old. She was divorced with teenaged children. She obtained her diploma from a UAE college and worked full-time in government firm.

She used IT as an informational resource to answer medical questions and discover distant cultures:

[...] when my doctor told me that I might deliver my second baby by C. section I hurried to the internet and read every thing I can find on the Internet about this type of surgery and saw some pictures of how it is done. Before reading about it and seeing the pictures I was very scared, but the information helped me to relax and not be as worried. Information technology really changed our lives and the way we see things...the other day I was watching a cultural program about the live in Central America on one of the satellite channels and I started thinking about my mother and father who did not even know there is a such place existed in their world. As you can see IT is in every part of our daily activities in the UAE.

She discussed the rise in women-owned businesses in the UAE and noted how convenient it was for them to raise their economic status without leaving their homes:

I know some UAE women opened businesses from their homes and they do all their marketing and working through the Internet. As you in our culture some families don't want to have their daughters interacting with men especially at work. The Internet has provided an alternative for those women.

As a mother, she strongly supported parental supervision for children using the Internet to research or chat:

As I'm sure you know there is nothing on this earth without a negative side to it, but it is up to us how to use whatever it is. Information technology can be very dangerous if we misuse it especially with young people. For example, chatting on line I know some young people spend hours on it without supervision from family. The Internet has a lot of good information, but also it has tones of not so good and if we don't supervise our children and make sure what they see on the Internet. Also mobile phones are another technology that young people spend hours on them...satellite dishes and all the junk on TV. There many things we can

talk about in technology that is dangerous if we don't supervise our young people.

She acknowledged online chatting between adults could improve language skills and offer valuable exchanges of cultural information:

Chatting and meeting people from all over the world on the chat line and helped to learn English. Also writing emails to my friends in English and read their emails and compare my English to their English helped me to improve my English. Before the Internet I hated English and I didn't write or read any English books, but now I love reading in English and I love to surf the Web Learning English online is very affective especially with video clips and emails and chat lines. My friends think that online students can get more of the instructor than from a instructor in a formal classroom. I know many of my friends also taking English course online.

IT widened the scope of information available to her, offering her a range of new perspectives:

I can say to a wider cultures and offers me a many sources of new knowledge and I feel like have the whole world in my office and at home in my small computer and can learn about any culture I want at any time. Technology has given us wider perspectives not only in the UAE, but also the whole world. For example during USA elections I learned many things about the USA culture and American politics. We saw everything live on CNN and read it on the Internet. Through the Internet I learned many things about the religions in the West and also learned about Islam and how the West view it. Well I preferred to use computers as much as I can in my job even if I want to know a meaning of a word or spelling. I refer to computer look up words in online dictionary. Even in my daily life if I want to find out anything about educating my children I go to the Internet to find the best school available and learn about what they offer and compare programs before I enroll my children in any school.

Her attitude towards men was competitive:

I think UAE women want to prove UAE men that they are smarter than them and they can do anything they put their heads to do. Men are lazier than women and they don't want to work. I think it because they always have somebody to serve them and have their things ready for them without working hard. Women use to do everything for men and also men had a bad attitude towards women and I think some women gave that impression to men.

**Participant 9.** This interviewee was in the age group between 20 and 25 years old. She was unmarried and had lived in the USA for 4 years, where she was studying to be a film director.

She used the Internet for everyday research and communication purposes:

I use the internet, the library computers, and the like to access any type of general education info to trying to find a novel I wish to read, use to communicate my family and friends, use to do my assignments for school, use it to watch TV and learn about what goes on in the world...I use it conduct research in my university.

She found the growing number of UAE women opening home-based businesses encouraging:

I think one wonderful idea that women are starting to establish home-businesses, especially when most UAE women are conservative and would rather work from home if they were married with children. I was way from the UAE for some time and when came back I noticed many good changes in the women think and try to improve themselves.

I think IT opens a huge opportunity for UAE women to learn more about the outside world, which is always a benefit. I think the UAE women have a golden opportunity with IT now and I hope they take a full advantage of it. I think the Internet provides women and men in the UAE with unlimited access to information from every part of the world and depends on us how to use this large volume of information.

Although her family allowed her to study abroad, she was aware that this was not the case for other women in the UAE. In her eyes, IT served to level the playing field:

I come from a family who taught me to depend on myself and to do whatever I see fit for me. For example now I'm studying in the USA and I have every opportunity to learn, but I'm talking about women in the UAE who come from a very strict families. In another word IT has provided education and work opportunities for UAE women who come from a very strict families. I think some of them are taking advantage of these opportunities. For example, if you look at the UAE women 20 years ago and you see them today...it is obvious the big change in the way women behave and think. UAE women are very independent women and they

don't listen to what the men tell them and they are very competitive in whatever they do.

She maintained traditional classrooms are superior to online learning and saw online learning only as a last recourse for women who were unable to educate themselves any other way:

I find the Internet helpful in my education, and I think mentioned before that the Internet is part of our daily lives now. Maybe it need to have some regulations about online education like authorizing online degrees to be tested because that would encourage students study online ...maybe not positive. It depends on the person. People even in school do not socialize if they don't wish to. However, I would hate to find my children having not go to school and sit in front of a computer to receive their education. It's lifeless, because socializing must be a part of the education experience, to learn how to form respectable healthy relationships. I think the online learning is the best way for them. I encourage every one to take any opportunity to educate herself and not to sit at home doing nothing.

Her early educational experiences left her well-prepared for her first visit to the US:

I was educated in an international school, and was raised with many ambitious students who were mostly expats. They always spoke about traveling abroad for their higher education and most wanted to go to the US. Therefore, ever since, I've been learning as much as I could about the American culture in order to 'fit in' easily when it was time for me to leave. Well once I got to the US, I did fit in very well. I fit in better than most Americans fit in with each other.

She disagreed with the notion that the Internet weakened people's cultural values, and believed the onus was on the individual to maintain the integrity of personal belief systems:

I don't agree that the Internet influences anyone to change or weaken cultural values. An individual neglects their cultural values if they have a negative attitude towards education and self-respect. I think we have discussed TV already and other media as such as movie theaters and videos and radios...we agreed they do influence individual's thinking and perhaps values and beliefs. Again depends on the individual could be influenced positively or negatively. Therefore, yes IT can change people's way of living.

Noting the ease with which some young people slip into obsessive behaviours, she described how relations with her brother have been negatively impacted by the amount of time he spends online:

Well my brother spends hours on the chat line and I had a long talk with him, but if my family don't supervise him...he just waste his time. Well let's look at it though a teenager's eyes, you know many girls here don't understand why their families are protective, and don't understand the culture values, and why they have to be conservative. They then turn to the Internet and pretend what they want to be and not what they are. I feel sorry for my brother, I gave him a long lecture the other day, and made him aware of his problem, that yes it needs therapy. I think if the UAE is going to progress in IT, then they should prepare the youth and teach them how to use it in a healthy manner. Unfortunately, obsessive-compulsive characteristics are abundant everywhere, and even in the UAE. Other countries are doing something about it, except here, and I think they should start.

**Participant 10.** This woman was in the age group between 38 and 43 years old. She was divorced with teenagers and children in their early twenties. All her education took place inside the UAE. She was a full-time student with a full-time job in a government firm.

She gave several examples of how the Internet has made life easier for people in the UAE:

A good example is when my sister decided to get married we used the Internet to search for good designers for wedding dress and we were able to compare prices and the dress delivered to our house...there are many examples how the IT made our lives easier...September 11 another good example how we watched alive on TVs. Information technology brought the information to our living rooms and we have no excuse not to take advantage of it. I made many friends from many countries without IT I would have not heard about some of the countries. We in the UAE love IT and love to learn about it and we always have the latest technologies in our homes and office. I hope we use it to educate ourselves and educate others about UAE and UAE people.

She saw UAE women gaining valuable critical thinking skills and business experience as a result of their involvement with IT:

I think many UAE young women are study IT. We see IT as another alternative to promote ourselves and show the men and the world what we can do. I don't know if you heard that women in Oman next door to us now can drive taxi and involved in so many jobs a few years ago these kinds of jobs were giving to men only. The web-designers are selling and buying form their homes. Women in politics...I'm sure you heard about women in Sharjah how they were voted to National council. I think UAE women are on the right path to be part of building our country. Hope they will take advantage of the opportunities available in the UAE for women under UAE president wisdom. I think the Internet had opened many opportunities for women in the UAE. Jobs, education, critical thinking and freedom to think and decided what women want to do with their lives. Our mothers and grandmothers did not have choice in life like we do today.

She expressed a desire to pursue graduate studies online and planned to make the most of any opportunity to raise her cultural awareness:

I applied to working graduate online degree and I have applied to several online universities in the USA, Canada, Australia and UK. I'm in the process of deciding which university I should get my degree from. Also I took many online English courses and know many of my friends are doing the same thing. I love to read about ways of learning from home because I have a family and can't travel like you. Maybe when my children all grown up I'll get travel and experience of being at real university like you. I'm sure you have learned many things about Canada and the way of leaning in that part of the world. Subha take advantage of it and don't waste your time. There are many UAE women wish to be in your place.

She described how her experiences on the Internet have enlarged her world view:

I have friends from many parts of the world and we are exchanging information about our beliefs and cultures. It is exciting to learn about different nations. Internet gave me larger scope of the different cultures. For the longest time I thought our culture is the only culture is worth studying, but the Internet has changed that for me. My knowledge about people and cultures was limited before I was exposed to the Internet. I try to look at people as individuals and look at their colors or backgrounds. As you know we in the UAE family and family name means a lot and



sometimes we mistreat people because of their ethnicity...I think communicating and exchanging information with people helped me to get rid of some of that attitude. I think we should start teaching our children to respect human beings and other people would respect us too.

**Participant 11.** This interviewee was in the age group between 20 and 25 years old. She was unmarried and worked full-time. She obtained her university degree from a UAE institution.

She relied on IT to help her with a variety of daily tasks:

I use my mobile phone, msgs and tones, organize my appointment. Also, I use my computer for sending emails, organizing my appointment, using the internet. Carrying out my business at my office...communicate with my colleagues. I use the Internet for shopping learning English and getting info about universities and colleges a broad. I think IT is the best thing that man has created for us and I just love it and think of it as the best helper to man in every aspect of life.

She recognized the value of online education for Muslim women from intensely religious families:

As you know, some women are [restricted] from going outside their homes especially women from religious and strict families. The IT is small door for them to reach out to the outside world. Many, she can buy and sell stocks online, do email business, build her own web site and invite people to it, then she can do business by having more visitors coming visiting her site. Web-design and many other things women can do with help of IT. Especially if women have hobbies, they can share them and do put on exhibitions or gallery and invite people and get their opinions, without going outside and exposing them self to men.

Although she had some criticism, she claimed online learning had benefited her in ways that traditional classroom learning had not:

[Online learning] I feel there could be more focus on the subject you are studying, and you meet the person on the net for that purpose, not like the classroom you may meet them because you just like them even if they are

not good at their studies, or if you are not benefiting from them. Again depends on the student, subject and instructor...I feel I can benefit more from online studying than from a normal classroom settings.

Her first exposure to foreign culture was by way of the Internet, and she was enthusiastic to see more:

I like to see other cultures like the Indian, the Japanese and the American cultures it is interesting, however, some cultures are not acceptable by our beliefs and rules in Islam I mean. so we only see to know what is going on around us, and know how and why other people think this way, and it might be because of their culture and beliefs are totally different than us. I like to learn about different cultures even when they are different than us and not according to Islam...I think we still can learn from them...can take the good things and leave the bad things.

**Participant 12.** This interviewee was in the age group between 32 and 37 years old. She was unmarried and held a graduate degree from a UAE institution. Her education took place entirely within the UAE, where she was working as a college instructor.

While she found the Internet useful as an educational tool, she remained cautious about the nature and the source of the information:

As an educator I learnt a lot of things like theories, methods of teaching, instructional aids through the internet. For me media is a tool, I keep myself informed but it is the same as the internet always treat with caution, not everything is to be believed. I also think media is a big consumer joke, as they convince people to get things they do not need. I am not much into movies but I would watch a highly rated film at home. I have never been to a cinema, I have seen things on the internet a few times but I am not a big fan, just an occasional viewer, maybe once a month or so I think also that media has a place in our lives but maybe it is robbing us of the freedom we work hard to get.

In her life, family was the first priority, and she believed home-based Internet businesses were effective compromises for mothers who wanted careers but were unwilling or unable to sacrifice family responsibilities:

I believe that mothers have a degree 1 priority and that is their children, if working outside is jeopardizing the family life then working at home might be a good solution. My sister in law tried but there is no market here for these kinds of jobs. I know a young lady who has just quit her job at the university simply because she wants to stay with her first baby and I do not blame her, a mother should be able to see her kids grow and working at home would provide with allow a lot of energized women to work

Despite its usefulness as an educational tool, she noted that online education had an inferior reputation as compared to traditional classroom learning:

I know I can search the Internet for information or use it as a tool but for education I think it would be a long time before education through Internet would be given enough credit to be trusted. I have been part of online communities for teachers and it wasn't really socializing but I would feel sometimes the support of an online group and we benefited from each other. They are all right too. As I said specialized discussions are important for professionals because they keep ideas flowing and you would reach people at the most convenient time for you and ideas would come from around the world which is supposed to benefit our professions. [...] My ability to grasp at the moment who of the students need help and if I am the student, then I would be able to say a question, a comment, a suggestion or an intervention and all would be understood directly, on line there is no place for this, there is a place for a very organized operation no matter how interactive it is it is still without the human touch and human compassion.

She often met people online and undertook an informal, 'accidental' exchange of cultural and information. She described her experience of developing friends 'accidentally' and how these relationships broadened her mind and improved her language skills:

My language was formal and when I used the Internet I was able to be more casual [and] my language improved. I already understood a lot about other cultures, the thing is that is exposed me to more American culture and consumerism. I know a little bit more about Arabs and a few other countries, I once met a fire fighter and flower gardener from Holland. He was at the time 28 and is married with kids and his job is a gardener of flowers like the tulips, then in his community they did not have fire fighters so they decided to make a volunteering group and they would go and stay at the fire station for a number of days in the month. He also talked a lot about seasons and flowers.

Although she believed the Internet had not fundamentally changed her in any way, she went on to argue that families must educate their children about other communities in the world. Her Internet experiences introduced her to the world outside the UAE, and she saw the necessity of greater global awareness for future generations. Ultimately, however, she believed traditional Islamic culture would be unchanged by technology:

I still am the same person in many ways, old fashioned and [strict] in certain areas, flexible and easy goin in other. [...] Culture has not changed for me but maybe some traditions and not because of the internet it is just because of the society and the fast pace it is changing. I have always placed high values on things like Arabic language and Islamic practices, respectable personality and so on and I do not think they change by internet or anything, they just mature. [...] No change is never bad, every generation have their own way of doing thing, the problem in our community is that though they are very modern regarding technology and material things they still have practices of ignorant communities though many are educated.

She anticipated greater access for women in the political arena:

I do not think men have enough political rights let alone women, and this is all over the Arab world, I think when men get their rights women would too. I do not think our community is like Kuwait where men only vote, I hope that we are more open towards this and do not follow the footsteps of kuwait and Saudi Arabia in this regards. I hope we at least get a women council just like the men council.

**Participant 13.** This woman was in the age group between 20 and 25 years old. She was married and was both a full-time student and a full-time worker. All of her education was inside the UAE, and she was in the process of completing her M.B.A.

Her reliance on IT as a tool in the workplace led her to question how previous generations in the UAE got along before the Internet:

I use IT in designing information databases, such as employers database and HCT graduates. I also depend on it in communication. For example, I use email to communicate with graduates and inform them about job opportunities and graduates workshops. If we look around us we use it in every aspect of life. We depend on it for so many things for example news media and other communication ways. The other a friend of mine and I were discussing it and we were questioning how did our grandparents lived without the revolution of Information Technology.

Women's advancement in IT-related careers in the UAE was a source of pride for her:

In the past we used to get professional employees from outside, now a days we depend on our own people. Nationals are being highly qualified to work professionally in this area. Earlier it started with guys only but now it open it doors for national women too. A good example for that is Dubai Internet City and Tejari.com. Ladies are being qualified to do work as Computer Information Processor as well as Technician and programmers too. Dubai Internet City and Tejari.com are group of companies (International and local companies) working together to do business deals and operations through Technology. For example, Tejari.com focuses on E-government and getting all sort of business deals done through the Internet. Dubai Internet City has even its own college to teach people Internet protocols and Internet security to protect their business.

Even though the Internet allowed her to save time in some areas, she struggled like other modern women as she tried to co-ordinate her work schedule, studies and home responsibilities:

Currently for my Master, I am getting most of my project and paper research resources from the Internet. Its easy, updated and available at any time of the day. It makes you flexible and efficient in time management. Well its good, I see myself learning a lot. We have qualified teachers from AUB and Arizona. But it's very extensive. The treatment for student is not that professional. They still make a big deal of attendance policy that is something quite difficult for people committed to long hours of work. It is not easy but doable and as you know we women must work harder than men...we get our opportunity in the professional arenas. We must approve to the men we are capable of multitasking and maybe then they will give us a chance. Have you ever heard of man doing the things we do...taking care of a family, working full time and going to school. I think they will not make it. I think God gives women special strength to do what we do.

She benefited from informal learning contracts with Internet acquaintances:

I have friends who I chat with them from different part of the world. Since 94! I had an agreement with them to help me with my English and to correct any spelling or writing mistakes I would make. I do learn different phrases and words from them. I believe it was a great help to improve my English skills. Specially writing and ability to express my ideas. I used to pick a topic for example. Cultures or religions, beliefs and values and we discuss it among us. I had to use the dictionary to get more words and by that way I learnt a lot.

She took advantage of any opportunity to discuss career planning with her online friends and appreciated the diversity of their opinions on the subject:

Well of my favorite topic that I discuss with people over the net is the Career Choice. I learnt a lot how people in the UK for example and US are much more prepared to make a career move and career options in life than us. Maybe cause we are so much dependent on our families and the career choice is highly affected by them. Maybe cause we don't have enough resources to think of how should. Decided on my future or where to start. I noticed that all of them work part time while they study, but here it's hard to do so. Or for some families that's embarrassing. Lately girls and boys are being much more encouraged to go for summer work but I would love to see more of us doing part time jobs while studying.

She confessed to a lack of self-discipline when she first began using the Internet:

At the early start, I had Internet addiction! I used to spend my time days and nights using it. I found it a useful tool to learn many useful things and I was fascinating with all the information on the Internet. It has weakened my relations with my friends and family. So it does have an effect on real life relations. But I am over it now. I have other life commitment to focus on as well. At first it wasn't easy, but I had learn to focus on other more important things in my life. I still spend a quite a bit of time on the Internet, but search for information for my school. And I try to make time for my friends. If love the Internet then you must have a good self-control or a person will waste all the time on the Internet

The Internet allowed her to re-evaluate her perceptions of other cultures, while at the same time permitting her to dispel stereotypes about her own:

I started to be more open to different type of communication. Has a lot of respect to different individuals. It changes your stereotype judgment about

different nationals or culture. For example, I have talked to different Americans, and I find them very nice and have a lot of respect to Arab and Muslims world. They were very interested to know much about us. I had a friend who came to visit us here in UAE and she liked it. She was surprised with how people were nice to here and people like how understanding she was. It was not before that for sure!! Things have change now I believe. But I still have few of my American friends, worried about what's happen and has different concern. I talked to them to be honest about what happened but they still have different background than us, no matter how understanding they were.

**Participant 14.** This woman was in the age group between 26 and 31 years old. She was married and was a full-time student who also worked full-time. She obtained her university degree and undertook all her education within the UAE.

She was enthusiastic about the wealth of diverse information accessible to her online:

[...] the Internet is a sea of information, and I love to learn, and discover. There is absolutely nothing an individual can't find on the Internet. I can spend hours on it and forget about the whole world. [people on the chat-line] are from all over the world and that's what makes chatting interesting because you learn from people from all over the world. I find chatting very educating ...you should try it...you never know might learn one or two things.

Her feelings about the opposite sex motivated her to work harder to improve life for herself and for future generations of UAE women:

Subha, I can't stand men when they think they know everything and we women know nothing...they [think] we made to stay home and produce children serve them. Not all of them, but a big number of them. I think are some men who really encourage women to progress and encourage their wives and daughters educate themselves. Of course we know the ignorant men who don't think about anything, but think about themselves. I'm sure this problem is all over the world not only in the UAE.

She was curious about online education but was still gathering information about the process. Her main concern was accreditation:

I'm thinking of applying to online universities in the USA and Canada to pursue a master's in Information System. I'm in the process of communicating with different universities. My friends tell me that UAE education system doesn't recognize online and distance education ...I think that is a problem. I know a few people who are taking courses online and some of them are working on degrees like Ph.Ds and masters and short courses. Also I know couple of my friends who are taking English course at Cambridge University, UK. The courses are online and they really learning.

She predicted positive changes for women in the UAE over the next decade:

I think we will see more educated women and I think more women will be using online education especially women with families and women from strict families. I think women will be more qualified than men in the UAE, and if men don't watch out women will take over the country. Yes, I think there is a lot going for UAE women in the next 10 years in the education and technology. I think in 10 years time we are going to see UAE women involved more in the technology field and probably would be also involved in the UAE politics. I think we just have to wait and see. I think more UAE women will occupy more senior positions in the public and private sectors.

**Participant 15.** This woman fell in the age group between 32 and 37 years old. She was divorced and was both a full-time student and full-time worker in a government firm. All of her education was undertaken the UAE.

Increased access for women to the political system in the UAE was important to her, especially as it allowed women to be involved in decision-making:

[UAE] have many schools for girls and we even have ZU only for girls, but all this means nothing if they still look at men are more capable than women. I'm talking about jobs usually men get higher positions than women. I think we are better than many countries, but we can improve in many areas. I think women should have the opportunity like men to work in the politics like ambassadors, cultural attaché and be part of the National Council. I hope things will change soon.



For those with no other means of educating themselves, she recommended online learning and online socialization as suitable alternatives:

In today's world where people enjoy this new technology very much. This is a great chance for them to learn and to communicate where they are not afraid of talking about what's on their minds and discussing things that matter to them. I think they can have an adequate socialization on the Internet by using the chat line and WEBCTs and other ways. I think it also depends on the students...some student don't socialize even when they go to a regular university and some students can express themselves by writing...I heard people have online clubs. I'm sure you know in your own university there many different clubs. Same kind of clubs but online and you can post so many things on different sites. As I said it depends on the students and what they want to do and learn.

She cautioned about the potential for online learners to become overly self-involved:

Maybe online education is not as binding as a formal classroom but in today's world it is just as effective. Maybe the problem here is that students become more self-centered. I mean that they become a little selfish and care more about themselves as they have only their computer to talk to or with not real people. Also students can create their own world and think about anything else. Well, when a person spends only time with his/her computer they tend to forget about the real world. Maybe the computer keeps them away from their families and friends. This is a bad thing about studying online.

She used the example of this interview to illustrate how important IT had become:

Without IT you wouldn't have the chance to interviewing me for your study... You maybe you would have to make an appointment to interview me face to face and I don't think you will get the same answers. I think people can express themselves better when they write and also don't see the person in front of their face. I feel like I'm chatting to a friend and that make feel very comfortable to chat with you. I think they are more honest with you on the chat line than interviewing them face to face. They don't see you and they don't know you and of course that helps to get honest answers

She believed IT had broadened her mind by bringing her into contact with a culturally diverse online community:

I see myself as an open-minded person and I don't care who I communicate with in this world. I see people equally important and every individuals has a task in this world and we all complete each other. Maybe that's why because as you know how people behave here especially when they think they own the world. What I mean is that some people think if you are not an Arab and Muslim you have no values and shouldn't listen to what you have to say. I discovered that is not true because I have friends who are not Arab and not Muslim and I feel they have a great values in this life better than many Arab and Muslims. Please don't ask me to explain because I know you know what I'm talking about.

**Participant 16.** This woman was in the age group between 20 and 25 years old. She was unmarried and was full-time university student. All her education was within the UAE.

She saw IT as an educational tool with the power to inform people and improve their lives. She pointed out that the value of IT lay in the way it was used:

[IT used] for educational purposes, or entertainment Maybe for research, and for job search. IT is a wide field and I can tell you many things because it seems to me we in the UAE can't live without IT now. 30 years ago our parents had no knowledge about IT, but now look our houses and schools everything is based on IT...for example Cable TV, Mobiles, Radios and when the September 11 problem took place we were able to watch it alive. That what I mean. I think some of things are good and it depends on how we use IT...I think it has improved our living conditions, for example we can access information from anywhere at any time we want as long as we have a computer and Internet. I don't think there is anything in this wide world without negative aspects to it.

Because UAE women could use the Internet to educate themselves at home, she was in favour of online education as a way to circumvent the cultural and geographical obstacles that have existed in the past:

I know many women in the UAE who come from strict families that don't allow them to go out, whether to study or work, the IT gives them the chance to do that. I mean their family will not permit them to go study abroad like you now. The Internet has solved that problem for many of the

UAE women. My family wants me to finish my education in the UAE, but they will not let me go outside the UAE to study. Also they want me to work in a nice place where not many men because they think I'll do good job with Women. I would to love to work in a mixed environment I believe men and women can learn from each other. I think soon these things will change. I think families will accept the idea that women and men can work together without anything bad happening between them.

Although her English language education was informal, she saw an improvement in her language skills simply through the experience of chatting online with foreigners:

It helped me a lot because now I read and chat in English a lot to use the Internet and I also improved my spelling and I feel more confident about my English skills. Especially when I chat with foreigners and I know that we can communicate quite well. I think the Internet is the best English teacher...students only need a computer and good Internet connections.

She believed her experiences with IT opened her mind to new ideas, and her advice to UAE parents was to engage in discussions with their children rather than impose their will on them:

IT made me more open-minded. I am now more educated and I learned a lot from using technology, I learned that we cannot control our children we have to teach them from the beginning what's wrong & what's right & then trust them & let them make their own decisions about their lives. In other words we can't force them to do things against their wills. I think also we spend a lot of time in front of the computer and don't have time for our parents, but also our parents are busy with their own lives. I think this is a negative impact of the Internet on families in the UAE.

### SUMMARY

Participants between the ages of 32 and 43 exhibited different concerns than women in the other age groups interviewed for this study. Their focus tended to be on women's involvement in politics and they expressed a strong desire to see more women participating in decision-making at all levels. All the interviewees asserted their belief that young women in the UAE have much better educational and career opportunities

than at any time in the past. As a graduate student from a traditional Muslim family, I have faced challenges similar to the interviewees as I try to impress upon my illiterate parents the importance of education.

The younger participants all had comments on issues related to gender. For those with no international experience, exposure to new intellectual and social freedoms has been enlightening. Younger participants criticized UAE men as lazy and displayed a competitive attitude towards them in the classroom and the workplace. The individuals who did not comment about gender issues were those participants currently studying outside the UAE. The omission of this topic from their comments led me to conclude that these women's immersion in Western culture led them to view gender issues with a westernized perspective.

The next chapter will offer a brief synopsis of the social demographic of the interviewees and focus on answering the interview questions using the participants' responses. It gives a general overview of the context and the main themes that emerged from the data analysis.

## **CHAPTER SIX**

### **PRELIMINARY ANALYSIS**

The purpose of this chapter is to introduce the study participants, to offer a brief synopsis of their social demographic characteristics and to give a general overview of the context and main themes that emerged from data analysis.

#### **Context of the Interviews**

The researcher collected the primary data for this thesis from interviews with sixteen women. Some interviewees were living in the UAE, while others resided in neighbouring Arab countries such as Egypt, Morocco, and Syria, or United States.

In most conventional qualitative research, textual data is obtained via face-to-face interaction in a real-world social context. Typically, researchers would start their analysis based on information in those texts. In this way, data from interviews and observations is transcribed into texts reflecting the contextual clues and subjective impressions formed by the interviewer and/or the transcriber (Flick, 1998). In this study, the researcher employed a non-standardized form of online one-to-one interviewing, using an Internet chat-line on the MSN Messenger platform. The researcher employed a semi-structured interview technique which directed probing, open-ended questions at the participants to keep them from giving one-word responses or being sidetracked by external activities. There was no transcription required because the primary data were in text form.

### **Establishing a Rapport with Participants**

The researcher made contact with participants via e-mail, introducing herself and giving a detailed background of the study. After a month-long correspondence, the researcher began developing a bond with the participants. Prior to each interview, the researcher spent 15 to 20 minutes chatting with the participants about their lives in general. This period of unstructured conversation was excluded from the interviews because its purpose was to allow participants to assuage their fears that the researcher was who she claimed to be. Before disclosing personal information, each interviewee needed special assurances that the researcher was of the same cultural background and religious affiliation as themselves. Without guarantees of anonymity and verification of the interviewer's identity, the participants would not have felt safe or comfortable replying honestly, and many probably would not have participated. Societal taboos and complex tribal affiliations in the UAE demand that women such as those interviewed exercise great care in disclosing the details of their daily habits and aspirations for the future. Family pressures can vary greatly from household to household, and some women guard their privacy fiercely, especially from strict religious parents.

### **Problematic Issues During the Interview Process**

It took the researcher one month to conduct eighteen interviews (two participants withdrew from the study), each of which was approximately 2.5 hours in duration. The researcher attempted to have uninterrupted interviews, but disruptions were impossible to eliminate completely, especially with younger participants who maintained other chat-

line conversations, received phone calls or went to brush their teeth during interviews. Slow or unreliable Internet connections were another unforeseeable problem. The timing of interviews also had to be convenient for the interviewees, most of whom live 12 hours ahead of Pacific Standard Time where the researcher was physically located. Interview times were scheduled a week in advance, and out of sensitivity to this time difference, the researcher chose to conduct most of the interviews either late at night or in the pre-dawn hours Vancouver time (which would be early afternoon in the UAE). In a few instances, interviewees did not log on at the appointed *rendez-vous* time and meetings had to be rescheduled by e-mail.

### **The Online Chat Environment**

Interviews for this study were conducted in English. English is the second language for both the researcher and the participants. Before contacting the interviewees, the researcher had some concerns that the participants would have difficulties communicating in English. The participants proved to have excellent English skills and a strong command of “cyber-etiquette” and chat-line idioms (including “emoticons” which are used to express the speaker’s feelings). The participants introduced the researcher to new information about a variety of Internet-related topics based on their own positive and negative experiences.

The ‘chat’ environment on the World Wide Web has opened up a new means of communication worldwide, and many cultures have embraced such online groups, thus creating new, ‘virtual’ communities without borders (the so-called “global village” phenomenon). As in any community, behavioural norms form the basis for successful

interactions. While in the offline world, many of those norms are explicitly defined, enforcement of rules and laws in the virtual world is next to impossible. Residual rules, common to all societies and usually formed by consensus, also exist in virtual communities, although these are not generally as easily understood by newcomers. Chat room rules may vary significantly from group to group or from chat environment to chat environment and are usually passed from old-timers to 'newbies' by word of mouth and example.

### **The Unique Lexicon of the Chat Environment**

Chat room language has a grammar and style of its own. It has evolved as a means of text communication better suited to a virtual environment lacking auditory or visual clues of face-to-face conversation. Icons and symbols replace unseen body language with text expressions, and commonly used phrases are assigned alphabetic acronyms such as:

ROFL	= Rolling On the Floor Laughing
IMHO	= In My Humble Opinion
LOL	= Laughing Out Loud
FWIW	= For What It's Worth
LJATD	= Let's Just Agree to Disagree
BRB	= Be Right Back

Conveying nuances of meaning (especially sarcasm or humor) is often accomplished through the use of "emoticons" (emotion icons), pictorial representations which show what words alone cannot express. Emoticons have become an indispensable part of e-mail and chat-line communication, and most interviewees used them expertly in their conversations with the researcher. A few favorite emoticons and their meanings were:



;-) wink  
 :-) smile  
 :-P teasing  
 :-( sad face  
 :-O surprise

### **The Internet in a UAE Context**

Prior to this study, the researcher read a June 28, 2001 *Khaleej Times* article which gave the impression young women in the UAE were misusing the Internet. Dire societal consequences could be expected. At the same time, local media outlets were claiming young girls were losing touch with their Islamic beliefs and values and adopting Western ideas. After digesting a variety of pessimistic stories from numerous sources, the researcher began to see a need to assess the role the Internet plays in young UAE women's lives.

### **Efficacy of The Chat-Line as an Interview Tool**

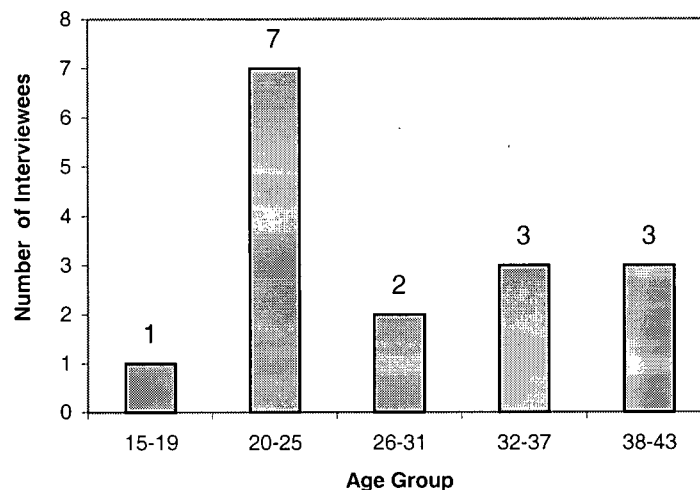
Using the chat-line to communicate with participants afforded the researcher a glimpse of the diversity and new knowledge being constructed by young women. Participants expressed a great deal of passion towards certain topics and, in the course of data analysis, the researcher was able to "read between the lines". For example, when participants discussed the impact of IT (Internet) on their beliefs and culture, they spoke frankly about changes experienced by their friends or family members, but avoided directly admitting that they have been affected by the same issues. Generally, when referring to negative changes, the women implied these were experienced by their

friends, rather than themselves. The researcher rephrased and redirected questions in an effort to detect when the participants may have been exaggerating or when they were making up information. Use of emoticons and idiomatic expressions was a clear indication of when participants were being sarcastic or sincere. Furthermore, because MSN Messenger allows users to see when fellow users log on, the researcher was able to determine the accuracy of the interviewees' time spent on the Internet. Most participants either underestimated the actual hours they spend online per week, or misrepresented the figure in an attempt to downplay their attachment to the computer and online friends.

#### **SOCIAL DEMOGRAPHIC FACTORS COMMON TO PARTICIPANTS**

Interviewees ranged in age from 15 to 43 and were grouped into four categories, as shown in **Figure 1**. The highest percentage of participants fell into the age group between twenty and twenty-five, followed by the thirty-two to thirty-seven bracket and the thirty-eight to forty-three group.

**Figure 1: Age Range of Participants**



The highest percentage of participants were unmarried. With regard to employment status, participants were almost equally distributed in three categories: five were students, five worked full-time and the remaining six were both full-time students and workers. Participants were from a variety of educational backgrounds. Most had obtained at least an undergraduate degree, with four of the women holding graduate degrees. Twelve participants had pursued their education exclusively in the UAE, but others had some international education experience, in the US, Egypt, Morocco or Syria. All sixteen participants had access to computers and the Internet, either at their homes, at work or at public locations such as libraries or cyber cafés, and many had access from different locales.

**Table 1** quantifies participants based on their reasons for using the Internet. Participants could select multiple reasons.

**Table 1: Reasons for Using the Internet**

Reason	Number of Interviewees
For research purposes	16
As a communication media	15
To pursue educational opportunities	13
To learn about other societies	11
To access entertainment	11
To make new acquaintances	9
To access job opportunities	8
For online shopping	8
To build social networks	3

On average, participants spent at least 5 hours on the Internet per week. Six women estimated they spent more than 10 hours online in a given week.

Finally, as **Table 2** indicates, participants were asked to indicate the reason they most commonly find themselves using the Internet. Unlike **Table 1** above, respondents could only select one choice.

**Table 2: Most Common Reason for Using the Internet**

Reason	Number of Interviewees
As a communication media	12
For research purposes	3
To access entertainment	
To access job opportunities	
To pursue educational opportunities	
To build social networks	
To make new acquaintances	

Most participants were unmarried professionals ranging in age from twenty to 43, and most had at least some post-secondary education and resided in the UAE at the time of the study. Interviewees had multiple locations available to them for accessing computers, and some of their many reasons for using the Internet were to do research and to pursue educational and career opportunities at home and abroad. Most participants acknowledged spending more than five hours a week online, and they responded that their chief reason for using the Internet was to communicate with others.

### **Thematic Overview**

At the outset, the author attempted to locate a comprehensive definition of 'information technology,' using traditional dictionaries and online resources. The following definition is used by many IT professionals:

IT (information technology) is a term that encompasses all forms of technology used to create, store, exchange, and use information in its various forms (business data, voice conversations, still images, motion pictures, multimedia presentations, and other forms, including those not yet conceived). It's a convenient term for including both telephony and computer technology in the same word. It is the technology that is driving what has often been called the "information revolution."

[http://whatis.techtarget.com/definition/0,289893,sid9\\_gci214023,00.html](http://whatis.techtarget.com/definition/0,289893,sid9_gci214023,00.html)

With this definition in mind, the researcher tried to ascertain the participants' thoughts on the subject of information technology by asking the following questions:

**1. What does Information Technology mean to you?**

All 16 participants agreed information technology is a system based on computer networking that provides people with fast and easy access to all kinds of information. IT connects people all over the world and provides them with career and educational opportunities. Information technology helps to construct, transmit and receive new knowledge, and at the same time it empowers individuals and improves performance through the development of new software programs, research tools and entertaining leisure activities.

**2. As a UAE woman, do you think Information Technology opens new career opportunities for women?**

The answer to this question was a unanimous 'yes' from all sixteen participants. Many of them described IT (and in particular, the Internet) as a window to the outside world and a door to new careers and educational opportunities for the women of the UAE. IT provides women with new ways to seek and apply knowledge in professional fields. Some UAE women (and indeed some of the interviewees) have started online stock-

trading businesses from home and some were designing their own web pages. IT is allowing them to be more involved in the political arena, and UAE women are finding themselves working side by side with men in many office environments in the UAE, in stark contrast to the gender segregated workplaces which were the norm less than a decade ago in the UAE. Many interviewees remarked on how IT had opened up new opportunities for women, especially those from strictly religious families. Only three participants commented on the negative side of IT: young people using the Internet without adequate supervision risk exposure to content that is morally objectionable to many Muslim families.

**3. Do you think the Internet is helping you to pursue your education?**

Fifteen of sixteen participants answered this question affirmatively. Most of their responses focused on online universities and online education in general, but some went on to discuss opportunities to learn English online. Respondents drew a clear distinction between formal online learning (under the auspices of a post-secondary institution, usually leading towards a degree or diploma) and informal online learning (where individuals satisfy personal educational goals by acquiring knowledge – sometimes quite accidentally – through social interaction with peers and friends from online communities and random hits from web search engines). Acquiring, sharing and exchanging knowledge with students from around the world was a big issue for participants and all acknowledged the value of this kind of informal learning. However, interviewees specified that both kinds had merit for UAE women. Three participants were either pursuing post-secondary degrees online or knew other UAE women doing it.

**4. Do you feel online education provides learners with adequate opportunities for socialization?**

Seven participants responded yes to this question. They argued that online socialization is effective, affording people both the opportunity to casually interact and, at the same time, engage in serious discussions with instructors and fellow students. Participants also maintained the effectiveness of online socializing depends on the personality of the individual student. Most students take advantage of conversational forums like chat-lines, ICQ, e-mail, and WebCT, using these tools to create online discussion and support groups for themselves. Online socialization is particularly important for UAE women from strict Muslim families. They can socialize with males and females alike, which would not be permitted in a traditional classroom setting. The degree to which this socialization supplements the learning process also depended on whether or not individuals were engaged in formal or informal online learning. The formal online environment focuses on instructor and curriculum-driven knowledge, but in the informal learning environment, socialization is of paramount importance, because peers and friends may step into the role of instructor, particularly if individuals are involved in a language exchange.

Four participants argued nothing could replace traditional classroom socialization at a 'bricks and mortar' institution. Furthermore, when one socializes online, it is impossible to know the actual identities of the individuals one meets. Interviewees also insisted that students can be disingenuous online, whereas in a formal classroom setting, body language plays an integral role, e.g. voices, facial expressions and general demeanour. However, online socialization benefits students with special talents for expressing

themselves in writing who would not be likely to say a word in a formal classroom discussion. Three participants were not sure if effective online socialization is possible, expressing a preference for a traditional style of classroom discussion, while the final two participants did not answer this question.

**5. Do you think online learners learn as efficiently as students in a formal classroom setting?**

Nine participants indicated they believe online learning is as good as formal (meaning 'bricks and mortar') classroom learning, if not better. They specified, however, that effective online learning, both formal and informal, demands particular conditions on the part of students -- taking responsibility for learning, self-motivation, self-discipline, self-evaluating, selecting appropriate strategies, reflecting on their performance, good computer skills, and good language skills. On the part of institutions, the required conditions are knowledgeable and skilled instructors who can assist students to recognize suitable knowledge, guide them to achieve the task independently, help them to develop connections between principles, theory and real life, and encourage them to take ownership of the process. Last but certainly not least, institutions must provide detailed and structured curriculums and up-to-date hardware, Internet connections and software. While the roles of the instructor, facilitator and institution may be less prevalent in the informal variety of online learning, the informal learner's reliance on educational websites and web-based research tools (many of which are produced by educators or institutions who may never have actual contact with learners) indicates that instructors and curriculum developers have important contributions to make to both types of online learning.



Four participants were of the opinion that online learning is for those students who have no other options for continuing their education, and they maintain that it is not as efficient as a 'bricks and mortar' classroom. Three participants who discussed their personal experiences with online learning said they found it unsuitable. They feared students whose entire educational experiences were conducted online might become extremely self-centred and might lose some of their humanity as they placed people and machines on an equal social footing. They acknowledged the interactivity inherent in online learning, but they were convinced that, at some level, all students require the 'human touch'. Three participants did not respond to this question.

**6. Do you think the Internet has affected your confidence in your English skills?**

Twelve participants agreed that the Internet has improved their English skills. They pointed out that the Internet is the best tool for helping them to improve their spoken and written English. With consistent Internet use, and specifically with regular informal discussions between peers and chat-line friends, participants saw greater vocabulary development, with regular acquisitions of new idioms and colloquial phrases, especially American idioms. One of the participants argued that any one could informally learn English online, through the use of online dictionaries, audio and video clips. She went on to discuss her own experience of setting up an informal online learning contract with an individual in a Western country who agreed to correct her spelling and grammar mistakes. One participant claimed the Internet is not a tool she employs to learn English, but something to assist her research. Two interviewees did not respond to this question.

**7. Has Information Technology exposed you to different cultures?**

Fourteen participants affirmed IT has exposed them to different cultures. Some acknowledged the Internet provided them with their first taste of different music styles, educational systems, and beliefs structures (some had their first conversations with non-Muslim individuals from faiths as diverse as Jehovah's Witnesses, for example). The Internet introduced them to a more opened-minded way of thinking and gave them a greater sense of intellectual freedom. Participants acquired knowledge about religions and lifestyles different from their own. The women discussed developing online friendships that allowed them to compare and contrast cultures and religious points of view. Several interviewees confessed to being fascinated by Indian, Japanese, and American culture.

**8. Has your exposure to the Internet influenced any of your attitudes? (feelings or emotions about ideas or individuals)**

Eight participants said they felt the Internet made them more open-minded, practical and critical. They felt the Internet had been a catalyst for helping them to look at the people of certain nations as individuals, rather than political allies or enemies. They said they learned not to expect all people to be the same, and that they in turn had created awareness on the other side by sharing information pertaining to their own cultural sensitivities. Many became motivated to read more about other cultures and belief systems. Several women discussed what they saw as the growing problem of Internet addiction. Almost all of the interviewees had some comment about how in the period

following September 11<sup>th</sup>, 2001, the Western media seems to have portrayed the entire Arab and Muslim world as terrorists. The participants found that the Internet has been one of the few media sources which has helped to facilitate understanding, helping Muslims to see what non-Muslims think about us and allowing them to see that we are indeed human, just like them.

Five participants claimed their attitudes were not influenced by the Internet, although they went on to discuss unpleasant online chat-room experiences (sometimes their own, but just as often those of a family member or friend). Hours in front of the computer stretched into days and nights, pulling them away from their families, and friends. Three participants were not sure if the Internet had influenced their attitudes, but they admitted their friends' attitudes had changed and agreed that, in general, UAE society is changing for the better because of IT.

**9. Has your exposure to the Internet influenced any of your cultural values?  
(principles or qualities you consider important)**

Twelve participants responded 'no' or 'not really' to this question, but most of them insisted the Internet has influenced their friends' cultural values. They pointed out that since cultural values in the UAE are built on Islamic values, the Internet has strengthened these by helping them to understand that the traditional Islamic way of life does not appeal to everyone in the world. Many interviewees said they had learned a new respect for other cultures and belief systems. September 11<sup>th</sup> was again mentioned inasmuch as it affected human beings all over the world, and participants felt that their growing cultural awareness allowed them to see that no specific country or culture has "cornered the

market” on evil. The society of the United Arab Emirates is changing, and the interviewees demonstrated an awareness of the fact that the Internet has helped this positive change to take place.

Three participants were adamant the Internet had influenced their cultural values. It helped them see how others perceive Islam and it has provided them opportunities to chat with males and females freely and without any restrictions. It has also paved the way for them to learn about other belief systems (without hiding behind religion as some might), and has given them the opportunity to reach out and educate the world about Islam, as

Participant # 1 points out:

I have used the Internet to promote the values of Moslem women. For example, in a discussion forum in the Internet I can give my comments on issues and people reply to it. So I see the Internet as a tool that could forge new understanding of Islam and my culture. Also by creating my own website and posting it on the Internet is a promotion of who I am and where I come from. [...] I’m living in the USA, but I am keeping my culture at heart, at my apartment and at social level. My living in US has only changed how I look outwardly (dressing style), but I try to learn the American culture and try to fit in the university life.

**10. Does what you know about Information Technology inspire you to learn about women’s accomplishments in IT outside the UAE?**

Twelve participants stated information technology had inspired them to learn about women’s accomplishments both in IT and other fields. They offered examples of websites developed by UAE women, high-ranking women in government agencies, women with private businesses, Omani women driving taxis (unheard of in previous generations) and successful women in North America and Europe and other Gulf Council Countries (GCC). IT has opened the interviewees’ minds to new dreams and possibilities and shown how women can work side by side with men. Four participants stated IT had

not inspired them in any way, and one participant insisted that she did not care to learn about the successes of women in IT or any other field.

**11. If you have the choice, will you try to work in the field of Information Technology?**

Eight participants said they would not like to work in this field, arguing it is not suited to them and that they love what they currently do. One was vehement in her declaration that she would never consider working in this field because she had developed a dislike for IT after being coerced into studying it by her parents. Five of the participants, however, would like to work in this field, saying they found IT to be a very innovative, fast-growing field, with high-paying, challenging work that was always on the cutting edge of technology. One participant has been working in this field for several years and said she felt it was the best decision she has made in her life. One participant stated she would love to work in this field, but only if she was qualified, well-trained and experienced.

**12. Do you think technology has influenced your life as a woman in UAE society, in terms of changing your attitudes toward family life?**

Nine participants asserted that IT had not changed their attitude toward their family life, but all of them discussed how a sister, brother, or friend had changed. Many were of the opinion that young people spend too much online without parental supervision, and they felt that in a growing number of families, Internet use has drawn children away from family activities. Participant 00210 discussed her experiences as an Internet user and a mother:

I have teenagers and [...] children in [their] twenties. We have 2 computers at home and we have divided the time amongst, but some of

them go to cyber café ...I find very difficult to monitor them. I know many families in the UAE they don't see their children for days and spend most of their time on the Internet. Of course I know many families grew apart because of the Internet and some young people cannot communicate to human beings because they spend most of their times in front of the computer.

Some participants confessed they initially were addicted to the Internet, but had since changed their behaviour, because of jobs or other responsibilities.

Four participants acknowledged that the Internet has affected the amount of time they spend with their families. A common assessment among interviewees was that the individuals who spend too much time on the computer lose touch with society; however, many felt the risks of Internet addiction were still somewhat mitigated by the beneficial effects of becoming more open-minded and culturally sensitive. They all confirmed that spending excessive time online undermines the connection between family members, and even the youngest interviewees believed parents must supervise their children when they are on the Internet. Two participants were not sure if they had changed or not.

**13. Do you think the Internet has influenced your cultural values as a Muslim female from the UAE? (customary beliefs, social forms, and material traits)**

Ten participants responded 'no' to this question, but went on to say the Internet had strengthened their understanding of foreign cultures and beliefs, while at the same time allowing them to forge a new understanding of Muslim culture and beliefs. Some respondents remarked on their exposure to the rudimentary tenets of feminism (women's empowerment and pay equity) through research and socializing on the Internet. However, they acknowledged that while Muslim women studying at Western universities may dress

in jeans to fit in, the core of their cultural beliefs would be unlikely to change. Most interviewees mentioned their desire to develop websites to promote Muslim women's culture and beliefs, or to contribute testimonials about their experiences. Nearly all spoke of their desire to exchange cultural information with others, with the emphasis on reciprocation rather than didacticism. Two participants were not sure whether or not the Internet has influenced them, but acknowledged the Internet as a forum for expressing their concern about social problems at home and abroad.

Three participants stated the Internet had made them more open-minded, allowing a closer examination of different cultures and belief systems. They supported the popular perception that the Internet shrinks the world down to the size of a small village, and cautioned that individuals spending hours on the Internet and in front of their television sets (watching cable TV from all over the world via satellite dish) cannot escape being altered by exposure to other beliefs and cultures.

**14. Do you think the Internet has influenced your personal aspirations, particularly those relating to your pursuit of a career outside the home?**

Seven participants said the Internet had influenced their personal aspirations to pursue a career outside the home. They noted the Internet had exposed them to many successful women in fields such as medicine, engineering and politics, and some were encouraged by the successes of men like Microsoft's Bill Gates. Two women were undecided as to whether the Internet had influenced their personal aspirations or not, but had been encouraged by the examples of successful women in all fields. One participant admitted

she prefers to work from home because she would rather not have to deal with men directly.

Six interviewees stated they already have fulfilling careers. Two claimed they have always known what they want to do, and one insisted she does not care whether she has a career or not because her main aspiration is to get married and start a family.

**15. Do you anticipate that Information Technology will have a positive impact on women's education in the UAE over the next 10 years?**

Fourteen participants supported the contention that IT would have a positive impact on women's education in the future. All respondents expressed the belief that IT and IT education will be the main instrument for societal change in the UAE in the next ten years. The women expressed optimism and excitement about changes in the method of delivering education in the UAE, asserting that the next generation of parents will be more educated than the one before, which have a direct correlation on the degree of freedom girls and women will have to learn by themselves. As opportunities for online education grow, respondents noted that Internet-acquired knowledge has risen substantially in credibility, as have online degrees. Knowledge is being constructed with the help of the Internet and new thinking patterns have been the result. The methods of teaching and learning IT have been continually updated, and as these changes have occurred, new doors have opened for women in fields of education that had been male-dominated, more home-business have been started, and new opportunities have been created for women in community politics. One participant confessed she did not care what happened and the one remaining participant did not answer this question.



**16. Do you anticipate that Information Technology will have a positive impact on the careers of women in the UAE in the next 10 years?**

Fifteen participants responded that they were anticipating a significant increase in the number of career opportunities that would be open to UAE women. Given current indications, they believe future conditions will see an increasing role for women in decision-making and creation of policy. The women exhibited confidence that openings would be occurring for women in managerial positions in the public and private sectors, and had an expectation that, in general, the role of women would change for the better.

**17. What is your worst experience with the Internet?**

Most participants mentioned technical problems such as lost files, viruses, slow connections, junk e-mail ("spam"), and inadvertent exposure to pornography sites (despite a nation-wide proxy server which blocks most X-rated material). In one case an interviewee recounted a story in which an old man on the chat-line requested her photograph, an interaction which made her uncomfortable and caused her to terminate the conversation. Financial irregularities and theft caused by insecure e-commerce sites left one respondent with heavy credit card charges.

**18. Did you learn anything from your negative experience online?**

All participants said their experiences served as effective warnings against repeating the behaviour in the future. Respondents said they are more careful receiving files from

friends in an effort to avoid viruses, and they have all learned to be wary of whom they trust in the chat-rooms and how much information they reveal about themselves online.

Table 3, illustrating motivating factors in participants' learning choices gives dimension to the model of online learning styles depicted in the next chapter (Figure 2).

**Table 3. Motivating Factors In Participants' Education Choices**

<b>Online Learning</b>	<b>Face-to-Face Learning / Traditional Classroom</b>
Circumvents religious restrictions (i.e. travel, family & tribal traditions)	Conforms to religious restrictions (i.e. gender segregated learning)
Flexible schedules may fit around domestic / career responsibilities	Mandatory attendance
Universal access to government-sponsored professional courses	Free access to all public educational institutions from K through Ph.D.
Participation in global "cyberculture"	Familiar cultural context
Language, cognitive and social skill enhancement	Peer interaction and professional, post-diploma support
Virtual classrooms may offer less competition	Competitive environment may build confidence
Diverse, mixed media educational materials available from non-traditional sources	Standardized curriculums leading to reputable, recognized accreditation
Non-threatening opportunities for gender dialogues and cultural information exchanges	Face-to-face friendships offer opportunities for post-graduate peer networking

Table 4 details reasons motivating participants' decisions to switch between one type of distributed learning.

**Table 4. Participants' Reasons for Switching Between Online and Face-to-Face Learning**

<b>From Face-to-Face to Online Learning</b>	<b>From Online to Face-to-Face Learning</b>
Convenience of Internet communication	Clarity of face-to-face communication
Global information access	Library materials in native language
Curiosity-driven learning is its own reward	Absence of UAE case studies on the efficacy of online learning
Expansion of social circles	Difficulty filtering online information
Desire to learn at an individualized pace	Inability to work independently / need for guidance
Traditional institutions may offer limited courses	Online education is on a user-pay basis

### SUMMARY

The participants' responses revealed a growing distinction between formal and informal online education. In both types of learning environment, the character of the individual is the chief determiner of success. The informal type of education had advantages for respondents in terms of cost (depending upon one's computer access, it could cost next to nothing) and the freedom to acquire knowledge in direct proportion to one's curiosity. Interviewees also saw great merit in more structured formal online learning environments, which offer the allure of quality information and accredited credentials.

The next chapter will elaborate on themes raised by the interviewees and analyse the two types of online learning.

## CHAPTER SEVEN

### THE TWO TYPES OF ONLINE LEARNING

The purpose of this chapter is to focus on questions 3 through 6 and to present a detailed description of the two types of online education referred to in the preliminary analysis, and the relevance each type has in the lives of study participants. The interviewees' responses will be examined in the light of issues highlighted in the literature review chapter.

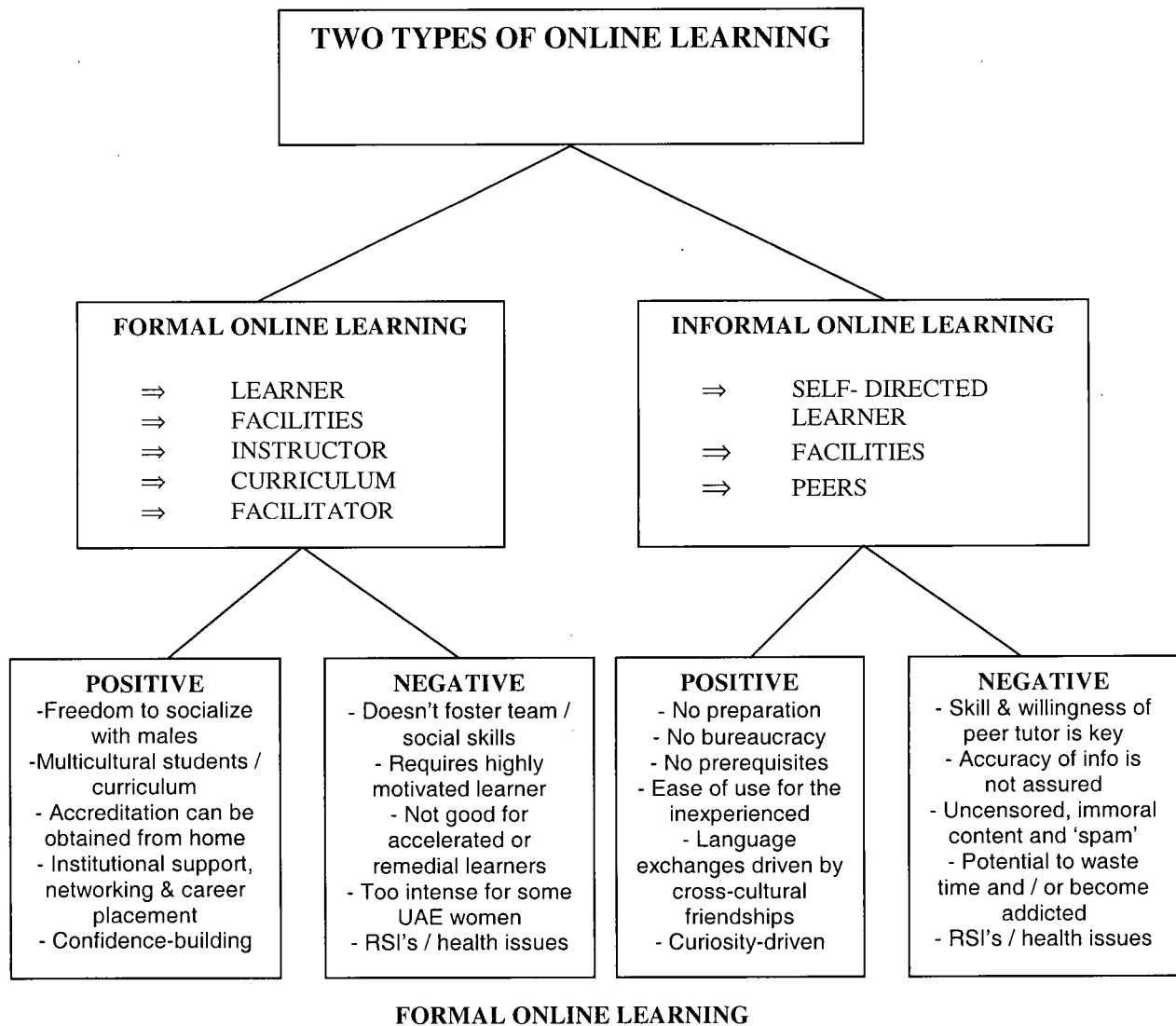
There are thousands of sites for people who want to pursue higher education and there are places that offer help for students. Also whenever I need to search for a topic and browse the Internet and find reviews, books and abstracts that can help me in my education.

Participant #15

Many participants remarked upon the vast opportunities they felt there were for people to pursue higher education on the Internet. After examining the interview data as a whole, the researcher found two distinct types of online learning had emerged from the women's discussions. These are best described as 'formal' and 'informal' online learning.

Dewey, 1938; Vygotsky, 1978; and Moore 1989 (as cited in Labyrinth, 2000, p. 3) drew clear distinctions between three types of interactions: learner-content, learner-teacher, and learner-learner. With this in mind, the researcher has attempted to organize the participants' observations into a simple chart (Figure 2. below) to provide a clearer picture of how they perceive online education.

Figure 2. The Varieties of Online Learning and Required Elements for User Satisfaction



For the purposes of this study, the term 'formal online learning' refers to a pedagogical discourse built on Internet courses, online courses, web-based courses, web-enhanced courses and/or e-courses, which must have a self-motivated online learner, facilities to support online learning, a well-trained online instructor, a tailored online curriculum, and a facilitator/online institution. In the formal variety of online learning, students are

awarded credentials (degrees, diplomas or certificates) intended to equip them with tools to help them reach their goals.

Participant #14 expressed her views on the importance of structured online learning:

Online courses and academic programs [are] meant for serious online students. I think it is very important to have good facilitators such as well-trained instructors well-detailed curriculums to help students to take advantage of online education.

### **The Ideal Character for Formal Online Learning**

Most participants agreed successful online learners have common traits and behaviours.

Participant # 4 suggested that when engaging in online discussions and taking a full advantage of constructing new knowledge, it's necessary to have good self-control and pursue specific educational goals. Participant # 5 noted students must be self-motivated and confident about what they want, and both # 13 and # 10 made similar observations, each noting the importance of self-discipline and commitment. Participant # 6 believed students must be "actively connected," and # 7 concurred that online learners "must designate time only for studying." Westera (1999), Wilson (1999), and Murray (1999) share the participants' views, and argue that for online learners to succeed, they must be cognitively engaged and active in their learning process. Selection of appropriate strategies, self-regulation and the ability to sincerely reflect about one's success in meeting clearly defined goals were all essential characteristics of the ideal online learner, as described by both the interviewees and relevant literature.

### **The Ideal Facilities for Formal Online Learning**

There are three basic facilities required for the formal online learner: “a terminal or a personal computer; a telecommunication system to connect the computers to a central computer, and server and software system to store and organize the text messages” (Labyrinth, 2000). As Participant # 7 reiterated, “English and computer skills and up to date computer system, Internet provider, software and contractor are necessary!!” Formal online learning is enhanced with the creation of online student networks, whether through the use of WebCT or programs like MSN Messenger. Student support facilities are of paramount importance, especially if the learner is in a remote area or is pursuing a highly technical course of study.

### **The Ideal Instructor for Formal Online Learning**

Participants felt the instructor -- or more specifically, the ability of the instructor to create community within the class -- was one of the most critical factors in the success of a formal online learning community. The online instructor must have specific skills tailored to their field, they must be effective collaborative communicators (particularly when language barriers may exist), well-trained and prepared for the unique demands of online teaching. Every one of the participants emphasized the importance of the instructor's role in formal online learning. Participant # 5 stressed that “the instructor must help students to connect with each other and with online learning process”, and added that in her mind, learning without an instructor -- or with an unprepared instructor - - would be a disaster for online students. Participant # 6 noted that one of the instructor's

roles is to provide assistance to online students so they can achieve their academic goals.

Participant # 7 also asserted:

I think the instructors also must have special skills to be a good online instructor. Instructors can't only post their notes on the web and that's the end of their responsibility. They must have clear and detailed directions for the students to follow. They must know exactly understand how online teaching work and must have experience in this field.

Three respondents said one could have the best curriculum in the world, but if the instructor was not adequately trained, was not a good presenter or did not have dynamic communication skills online, the lessons would have little value to most individuals attempting formal online learning. Even without visual and auditory clues that may indicate enthusiasm, students expect the instructor to have a positive attitude towards the subject matter and process of online learning.

Participant #11 commented:

In my opinion students are good at technology and instructors are old fashion and know nothing about technology, otherwise, I think instructors are more knowledgeable but in the old ways teaching and learning. In the college where I work many of our students teach the teachers how to use certain computer functions and programs. The important thing is the instructors pretend knowledgeable when he/she is not. In my opinion it is not bad for students and teachers to learn from each other.

The recurring theme, explored by Fiore (1997) and other scholars, whereby students are more learned in the area of technology and computer use than their instructors has been discussed in detail in the literature review chapter. Many universities and colleges employ students to design their Web sites, to introduce elements of technology to them and to provide support for faculty integration of the Web into their instructional models (Fiore, 1997). One obstacle to more successful use of technology for teaching, suggests Bates (2000, p. 25), is undoubtedly this lack of technical skills. "Students often have



more advanced computer skills than their professors". Some theorists have argued, though, that relying on student Web designers for technical support may actually be disadvantageous to the learning model, because it can lead to inconsistencies, site maintenance problems and a continued disparity between faculty knowledge about Web use and expectations of student use (Fiore, 1997; Stafford, 1997).

Both the literature and participants' interviews stress the importance of the instructor's mastery of the materials and ability to help students achieve their goals independently. Students need to take ownership of their role in the online learning process. It falls to the instructor to build on the student's commitment and assist them in becoming critical thinkers. Whether support is given through e-mail, WebCT or chat-line programs like MSN Messenger, instructor feedback is an integral part of the formal online learning setting. In the formal environment, the instructor's responsibility is to help online learners develop connections between philosophical, theoretical and real life discourses.

### **The Ideal Curriculum for Formal Online Learning**

Participants highlighted what they saw as the need for a detailed and multicultural curriculum to accommodate online learners from every corner of the world, including those with different educational backgrounds, ethnicities and languages. Given the multilingual and multiethnic demographic composition of the UAE, it comes as no surprise that individuals pursuing formal online learning there should want their curriculum to reflect the world around them. Cognitive learning theory holds that if

knowledge, skills, and attitudes are learned in an authentic context, they will be applied in a similar context (Wang, 2000). One respondent said:

Learning English online is very affective [*sic*] especially with video clips and e-mails and chat lines. My friends think that online students can get more of the online instructor than from an instructor in a formal classroom.

Another continued:

[Online group discussions have] advantages of course, specially for people who can not attend classes, or its even has the benefit of communicating with a larger number of people from different parts for the world. But it requires specially skills than the classrooms, for example, typing speed, English communication skills and detailed and well-defined curriculum to help students to makes most of their online learning experiences.

As in the traditional classroom, more flexible curriculums tend to be more successful for formal online learners, particularly insofar as they are able to combine audio, video, text, and graphics and appeal to students with proficiencies in multiple varieties of interface. Learners in a formal online setting also appreciate being able to order and control the information they receive, and increasingly, they expect unfettered access to curriculum content through the use of hypertext links and Internet video-on-demand.

### **The Ideal Facilitator/Institution for Formal Online Learning**

The facilitator of the online institution is one of the most important requirements for effective formal online learning, according to the participants in this study. The interviewees made reference to facilitating institutions such as Cambridge University, Dubai Online University and Phoenix University. One participant commented:

Yeah i'm planning on using the net to look for info for universities and colleges and programs. I know 3 of my friends who joined universities in Australia and UK and USA They r taking course online and also other gals

learning English online... I know one friend applying to Phoenix University to do business degree. That's all i can think about now.

The interviewees stressed that reputable online universities provide legitimate, accredited courses of study, as opposed to the superficial, fly-by-night chicanery often practiced by some online 'education providers'. Some interviewees admitted they were suspicious of unaccredited institutions because friends had lost money in their quest to find suitable opportunities for formal online learning.

### **Positive Features of Formal Online Learning**

While in traditional classrooms, UAE females are still segregated from their male counterparts, in the formal online environment, even the most strictly observant Muslim females can engage in free conversation and interaction with men without fear of any repercussions. Online classrooms also exposed the interviewees to greater numbers of multicultural students. Participants felt that ethnically inclusive curriculum content added value within a UAE context, because it not only reflected their multiethnic society, but it allowed people from isolated parts of the country an opportunity to better understand the cultural backgrounds of the different ethnic groups that live and work together in the UAE and the rest of the world.

One of the greatest advantages for the UAE woman undertaking formal online learning is the ability to get a degree from home, thereby circumventing any possible social or religious restrictions that may have been imposed on her by the males in her family. She can wholeheartedly pursue her educational goals in a vast number of fields previously

unavailable to her, and she earns accreditation at the same time as she earns respect from family, friends and the rest of her community. The interviewees commented on their pride in their educational achievements, and they felt no sense of inferiority because segments of their education might have been conducted online.

In the formal style of online learning, both ESL students and inexperienced online learners (like some of the women interviewed) benefit from the more structured educational environment. Shy or reticent communicators build confidence when written expression is allowed to develop at a rate that is controlled by the learner, as it is in a formal online setting. The heightened presence of the facilitator/institution in the formal environment allows learners to confidently expect technical support, networking opportunities and job placement assistance. Accredited online institutions also give learners assurances of accurate, modern curriculum information and expert online instructors.

### **Negative Features of Formal Online Learning**

Study participants expressed heightened anxiety about the legitimacy of the degrees offered by some online institutions, and they offered numerous cautionary tales of friends who had paid for educational services and received little or nothing in return. Lofty promises of up-to-the-minute curriculums and top-level accreditation do not completely assuage all fears that some online credentials will turn out to be worthless. Interviewees also found the formal online environment to have negative effects on team-building and the acquisition of social skills. Participants articulated their concern that future online students might not know how to operate in the 'real' world

and might grow desensitized towards humans. Furthermore, the accumulated intensity of the strangeness of using technologies like WebCT, the exhaustive effects of communicating across language and cultural barriers and the complexities of the curriculum overwhelmed some interviewees, and in the case of the family member of one participant, actually caused her to withdraw from an online university.

Long-term learning success in the formal online environment hinges on the personality of the individual learner. Fears centred on the formal online environment's tendency to physically isolate students become compounded when students are also inexperienced online learners who might need more classroom guidance than independent, self-motivated individuals. Given the importance of self-monitoring, self-motivation and self-discipline in the formal online classroom, it stands to reason that individuals with attention deficit disorders or learning disabilities would find inadequate support within this paradigm.

Overly structured curriculums can cause both fast and slow learners to lose interest, and in a culture where considerable wealth is the norm, the drive to persevere with a course of study may be mitigated by the knowledge that if one does choose to quit, it is money rather than face that will be lost. Learners who are overly reliant on oral expression may also suffer in the virtual classroom, since the students who normally feel shy about speaking up in a lecture hall may be more likely to monopolize discussion time in the online environment. Lastly, many interviewees voiced concerns about the health ramifications of formal online learning. Repetitive stress injuries,

eye-strain, weight and health problems caused by sitting in front of the computer for long hours may be exacerbated by the often sedentary lifestyle of the UAE woman.

### INFORMAL ONLINE LEARNING

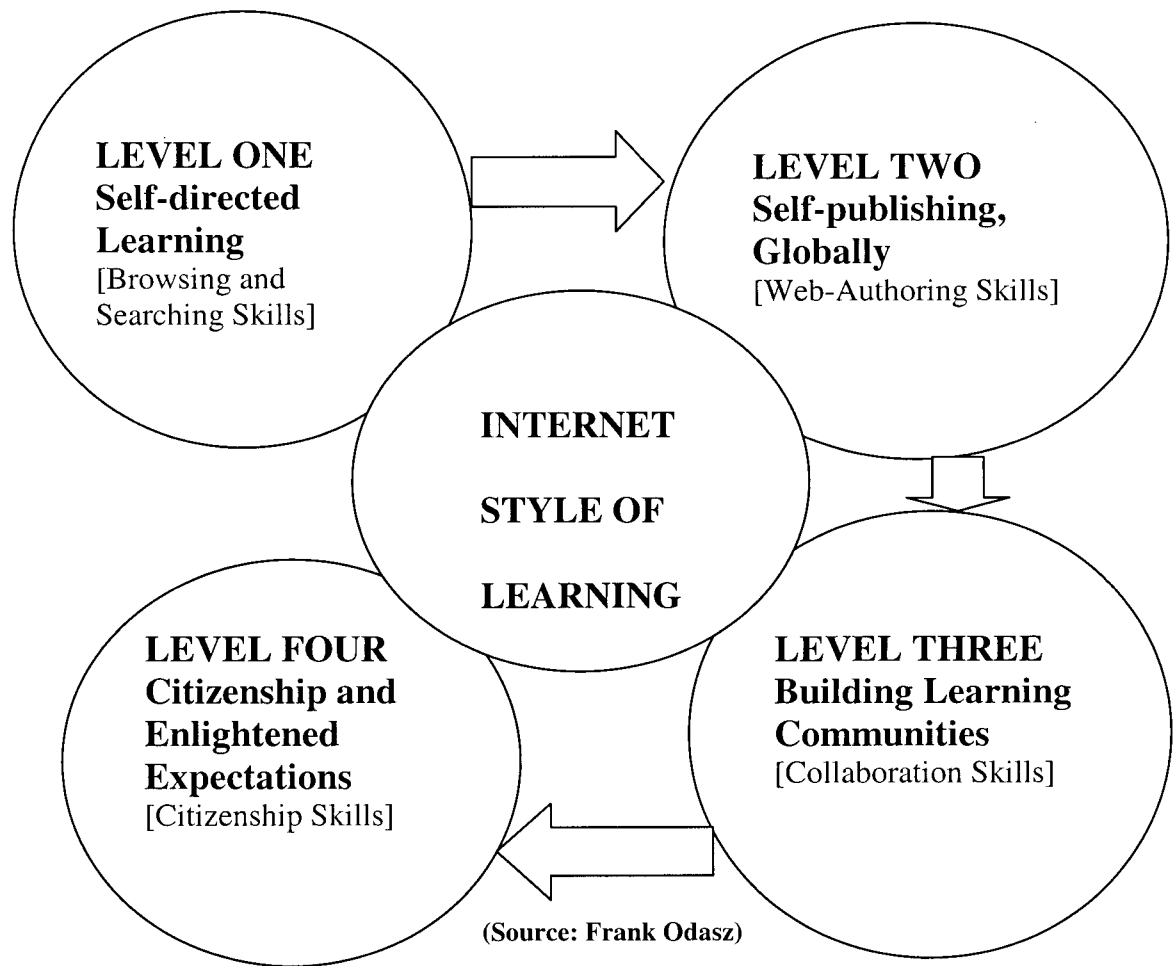
The interviewees viewed the informal style of online learning as unplanned education. Just browsing the web is an educational experience in and of itself. Many young UAE women start browsing the web with something specific in mind and end up temporarily diverted from their initial goal because something captures their interest on the way. This 'accidental learning' occurs spontaneously and unpredictably. Participants offered numerous accounts of accidental learning about science (particularly on topics relating to medicine, human biology and reproductive systems), language, culture, history and the everyday lives of people from around the globe.

Participant # 9 described her unplanned learning experiences:

The fact that I can learn about anything at anytime I want and not having to go through a process to obtain the information I'm looking for, made me know more in a certain period of time than would if I didn't have access to the internet. More knowledge, more confidence and more of unplanned online learning.

This unplanned, unstructured informal type of online learning is not exclusive to the women of the UAE or those interviewed for this study. Frank Odasz's chart on the Four Levels of Internet Self-empowerment (Figure 3. below) shows the educational progression followed by the majority of long-term informal online learners, as they move from self-interest to community-building, acquisition of citizenship skills and relationship maintenance.

Figure 3. The Four Levels of Internet Self-empowerment



### • The Ideal Character for Informal Online Learning

Self-directed learners do not require online instructors, curriculum or facilitators, nor do they expect a strenuous program with scheduled online meetings and time restrictions. Self-directed learners also do not expect to earn a degree or certificate, but rather choose to take responsibility for their own learning. The self-directed

learner decides what to learn and when to learn it, and may customize education to the fullest degree using Internet tools and resources.

In place of instructors and curriculums, the self-directed learner creates new forms of knowledge by sharing information within online communities. The self-directed learner may engage in active independent learning in order to meet (or in some cases, subvert) the expectations of family, community, and culture. The Internet affords even the most inexperienced self-directed learner the potential to search the best resources and learn from the brightest minds in the world. Like some interviewees, many self-directed learners may choose to surf the Internet in their native language, a choice which becomes increasingly viable with the rise in the Internet's popularity in the Arab world. Participants saw the Internet as a source of empowerment. It allows the learner to acquire information in direct proportion to curiosity.

Participant # 13's experience of accidentally establishing an online friendship which later turned into an informal education opportunity was shared by four other study respondents:

I have friends who I chat with them from different part of the world. Since 94! I had an agreement with them to help me with my English and to correct any spelling or writing mistakes I would make. I do learn different phrases and words from them. I believe it was a great help to improve my English skills. Specially writing and ability to express my ideas. I used to pick a topic for example. Cultures or religions, beliefs and values and we discuss it among us. I had to use the dictionary to get more words and by that way I learnt a lot.



For these interviewees, such peer-to-peer educational 'deals' formed the foundation for what may potentially become lifelong support networks, offering much of the encouragement and constructive criticism for which an online instructor might previously have been the only source.

### **IDEAL FACILITIES**

The minimum necessities for the informal online learner are a computer connected to the Internet and a web browser with a search engine, and possibly a chat function. One participant marvelled at the ease with which she acquired her 'accidental' educational experiences online:

Internet also a big world and any one can find information about anything the only thing person needs a computer and Internet. Honestly the Internet is amazing what you can do and find on it (Participant # 4).

Other helpful facilities are powerful search engines like Google, Yahoo and Arabic-language search pages like Maktoob. Participants also gave high praise to university-sponsored ESL resources, including online dictionaries and thesauruses. Informal online learners find video, audio and animated graphics to be informative and practical tools for pronunciation and language skill acquisition. Interviewees also mentioned finding useful communities of like-minded learners on newsgroups and bulletin boards, most of which were accidentally discovered following random searches on topics of interest to them.

Participant # 11 summed up the informal learning experience for many UAE women:

For example by typing e-mails and chatting with you, we gain confidence in talking and writing in English. Also helped improved my typing skills. To learn good English must practice it and not be shy to make mistakes. I think the Internet

gave me that confidence by chatting to people from all over the world. Also there are free online help like ACL EnglishNet is a FREE online community for English language learners from around the world. I think anyone can learn English without going to English school.

### **Positive Features of Informal Online Learning**

Among the chief advantages of informal online education noted by the interviewees was the fact that for any individual with a computer and Internet, the process of learning can happen by the simple act of browsing the Internet. After the initial computer and Internet hookup costs, informal online education is free and almost always available. Learning online requires no preparation and promises no bureaucratic headaches from institutions and no personality conflicts with instructors or fellow students. Informal online students do not need to complete any prerequisite courses before acquiring education online, and individuals can learn in their leisure time without needing permission or long-term commitments.

### **Negative Features of Informal Online Learning**

For the informal variety of online learner, interviewees agreed that the most negative potential problem they faced was Internet addiction. Because browsing the Internet and learning become linked, it is tempting to overindulge in information consumption, resulting in emotional disturbances, health problems and in the extreme cases described by participants, estrangement from family, friends and society. Inexperienced web-surfers can get mired 'spam' and useless cyberchatter, and hours can be wasted online under the guise of 'information exchange'. The Internet is full of garbage valuable information, and without the necessary ability to filter the good

from the bad, curious learners can find a steady diet of inaccurate information from wild conspiracy theories to cybersex sites and pornographic materials. Finally, the interviewees noted that since in the informal online environment, the role of the instructor and facilitator were effectively replaced by peer tutors and informational websites, there was significantly greater pressure to find helpful, available and knowledgeable online peers and communities and web-based resources that are accurate, interactive and frequently updated.

#### **GENERAL CONCLUSIONS ABOUT THE TWO TYPES OF ONLINE LEARNING**

The researcher observed that interviewees who had explored one type of online learning had less trepidation about attempting the other. Most interviewees could be categorized as informal online learners, while a few had enrolled in institutionally-sponsored courses of study. The researcher expects that informal online learning will be a lifelong process for study participants, given the feelings of success and empowerment they expressed when talking about their future in the field of Information Technology.

The next chapter will detail the researcher's findings and recommendations for further study. With the two types of online learning in mind, the researcher will analyse factors likely to shape the nature of distributed learning in the UAE.

## CHAPTER EIGHT

### ONLINE LEARNING ISSUES IN THE UNITED ARAB EMIRATES

Earlier chapters were largely based on conversations with 16 women. As noted, these conversations highlighted numerous issues pertaining to development of online learning in the Emirates. However, policy-makers cannot build a viable future on the words of 16 women. Hence, in this chapter the task is to take their words and locate them in a broader model that has illuminates the future of online learning.

#### Sixteen Respondents

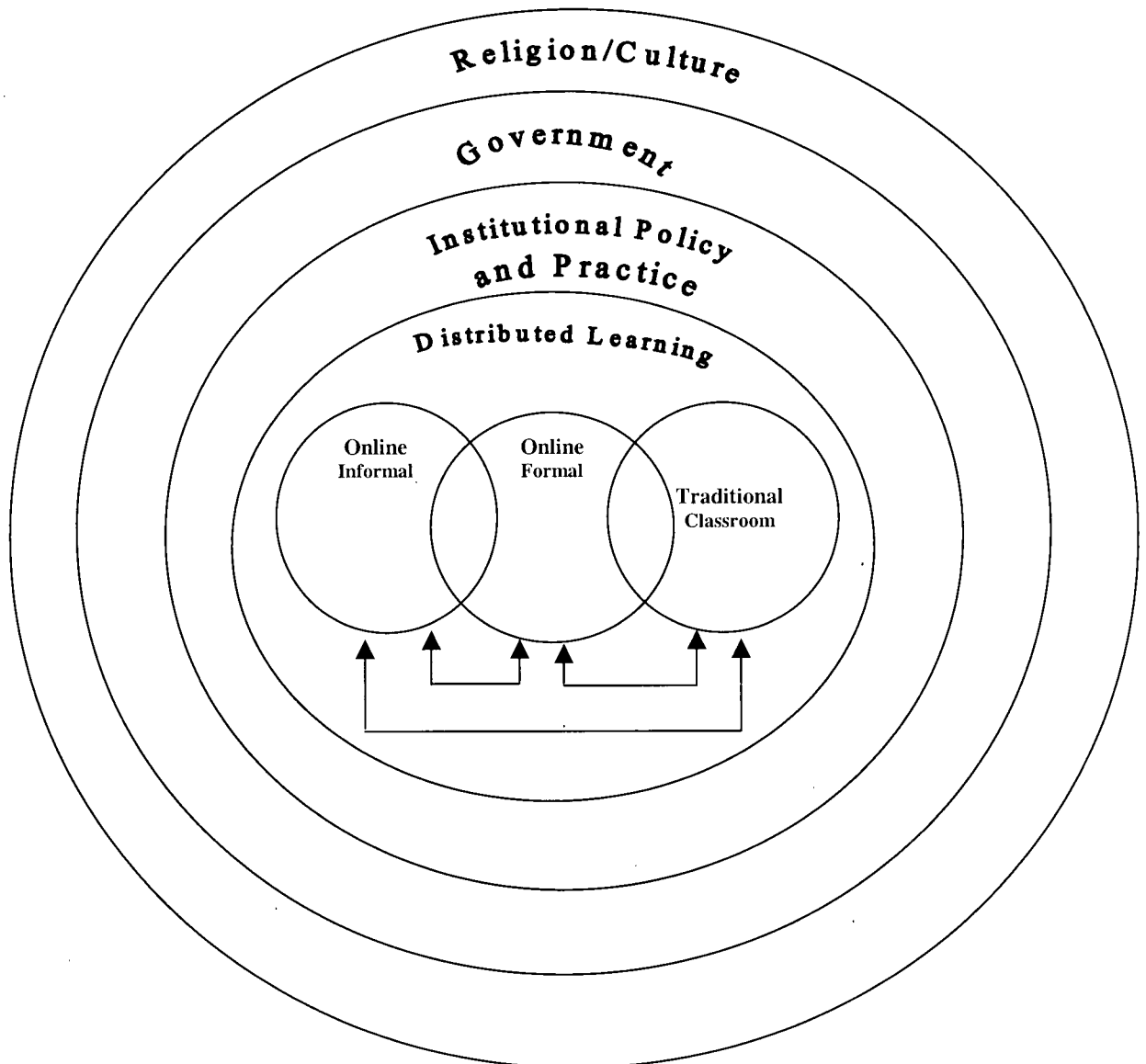
Readers are reminded the author volunteers randomly chosen from a list of e-mail addresses provided by the UAE's Ministry of Higher Education and Scientific Research. Following probing questions designed to direct the discussion, participants engaged in individual, semi-structured online conversations with the researcher.

#### Framing Online Learning

Figure 4 shows a model that portrays variables shaping the future of online learning in the United Arab Emirates. It is deliberately arrayed as a series of concentric circles (with "religion/culture" in the outer and "distributed learning" in the innermost of the circles). The purpose of this model is to provide a framework within which to organise what the 16 respondents said and to reflect on broader issues pertaining to online learning. This model is a reified version of various "realities" pertaining to online learning. Almost all social, political and educational life – including much of what happens in cyberspace – is shaped by the dominant religious and cultural traditions of the UAE. These traditions shape the processes of government which, in turn, form the policies and practices of

educational institutions. The “dependent” variable (or foci) of this model is distributed learning – captured here as three overlapping circles. These will be further explained below. In general, this model asserts that pressure is exerted from the outer to the inner rings. Distributed learning – which can include solo web surfing of the kind reported by some of the 16 respondents – has been and will continue to be shaped by forces such as those portrayed in Figure 4.

**Figure 4: Forces shaping the future of Distributed Learning in the UAE**



## ISSUES FOR THE FUTURE

Using Figure 4 as an heuristic device, now the task is to critically reflect on issues pertaining to the future of online learning in the UAE – having regard to extant theory, the author's experience and reflections as well as words spoken by the participants. It is not the task of this chapter to identify "implications" for online learning. These suggest that online learning is just a rational-technical matter – mostly involving connectivity or infrastructure. Infrastructure is important but, as suggested by Figure 4, no more so than religion/culture, government, institutional policy and practice.

### Religion/Culture

At the core of Islam is knowledge handed down to Allah's prophets in the revelations of the Holy Qu'ran. One of the first miracles detailed is the story of the illiterate prophet Mohammed acquiring the ability to read:

Read: In the name of thy Lord who created man from a clot. Read: And thy Lord is the Most Generous Who taught by the pen, taught man that which he knew not. (Qu'ran, 1994, p. 597)

The Qu'ran also explicitly decrees that "[t]he acquisition of knowledge is compulsory for every Muslim, whether male or female" (Qu'ran, 1994, p. 120). As a Muslim woman pursuing graduate studies in Canada, I see myself as an example of how Islam has provided opportunities for education to women.

Muslim critics who disagree with the issue of women traveling unescorted base their arguments on the section in the Hadith where the Prophet states "it is not permissible for a man to be alone with a woman, and no lady should travel except with a *Muhram*..."

(her husband, father, brother or another suitable chaperone from her family). Although my parents raised objections at every stage of my education, like many modern Muslims who believe the spirit of the aforementioned Hadith was intended to address personal security issues during a much more dangerous time in history. In Qu'ranic times, women who traveled alone (either on foot or by camel) risked abduction and rape, and this prohibition was intended to protect females from warring nomadic tribes.

Though my family continues to protest the decision to attend school overseas, understand their concerns insofar as they are only trying to help me be a good, obedient Muslim. All participants in this study discussed similar difficulties regarding travel, and in all cases, opposition came from religious family members who adhered strictly to Qu'ranic doctrine. For Muslim women who do not want to alienate families, online learning plays a key role, as it allows them to maintain their religious principles (pleasing their families in the process) at the same time as they achieve their educational goals.

The cultural traditions of the UAE are embedded within the Islamic religion. The people have witnessed dramatic changes since of nationhood. Petroleum revenues provided the benefits of a modern, developed society. At the same time, the leader Sheikh Zayed's (the president of the UAE) oft-quoted sentiment that a people that know nothing of their past can have neither a present nor a future resonates with large segment of the UAE population that aspires to maintain ancient traditions. Many participants in this study noted online learning is helping them acquire education that allows them to take advantage of career opportunities, while still conforming to a culturally-acceptable

framework. The risk-free global friendships and information exchanges the Internet affords online learners are further enticement to individuals such as those in the study, whose inability to travel precludes face-to-face cross-cultural dialogues.

There are many aspects of UAE religious and cultural life that appear congruent with the need for and process of **building** a vibrant culture of distributed learning. For example:

- Islam values the pursuit of knowledge in all forms. The acquisition of knowledge is obligatory for Muslims and the provision of educational choices is the responsibility of the state. “The state shall ensure the availability of ways and means to acquire education and shall guarantee its diversity in the interest of the society so as to enable people to be acquainted with the religion of Islam and uncover the secrets of the Universe for the benefit of mankind.” <http://www.islam-online.net/English/contemporary/education-1/education6.shtml> (viewed on 13/04/2002)
- The Islamic religion discourages women from travelling unescorted. Historically, restrictions on women’s mobility arose from tribal conflicts that posed threats to the physical security of women crossing the desert alone. Distributed learning circumvents the safety concerns many traditional Muslim families have regarding the education of female offspring.
- Learning institutions in the UAE are gender segregated. Distributed learning would facilitate risk-free communication between sexes through online discussions, thus helping students engage in useful cross-gender dialogues while at the same time preserving their religious and cultural traditions.
- Opportunities for females to pursue graduate studies are limited in the UAE, particularly when compared to the level of interest demonstrated by the study



participants. Distributed learning would provide a wide range of graduate programs for those desires to pursue further graduate education without leaving the UAE.

- Given the multitude of daily responsibilities facing most UAE women, they require learning that can be tailored to fit their lifestyle as and their religion. Distributed learning offers flexibility to students who are attempting to juggle school, work and family.

On the other hand, those in the UAE wanting to develop online operations in the framework of distributed learning face a number of **challenges** that spring from religious and cultural factors – such as:

- Compared to western countries the UAE is a “conservative” society. Those fostering of distributed learning must provide a framework and a level of guidance that demonstrate a sensitivity to the unique cultural context found in the UAE.
- Uncensored curriculum materials may contravene the moral standards of Muslim students. Facilitators must be cognizant of the conservative nature of UAE society and not offend learners with curriculums that include sexual content or anti-Islamic messages.
- Facilitators must obtain accreditation. At this juncture, accreditation can only be granted by the UAE Ministry of Higher Education.
- Limited English language skills prevent many learners from exploring online learning. Currently, most distributed learning is offered only in English.

- The lack of local case studies may inhibit prospective students who have yet to be convinced about the efficacy of distributed learning in the UAE.

### **Government**

The system of government in the United Arab Emirates is a unique combination of traditional and contemporary. The government is responsible for all aspects of the educational system. The Ministry of Higher Education and Scientific Research (MHESR) is responsible for planning higher education and research in UAE, as well as for licensing and supervising private higher education institutions. MHESR also implements the policies of higher education approved by the Cabinet. Both government and private higher education institutions are operating in UAE.

In an effort to compete with educational systems in other countries in the region and beyond, the UAE is acquiring expertise from around the globe and continuing research to provide the best educational methods. By supporting IT education and the development of new online institutions, the UAE government is showing its commitment to the new applied technologies. Since most government officials are currently male, study participants also gave evidence that their exposure to new ideas (i.e. the rudiments of feminism) encouraged them to become more involved in government at all levels.

The second circle in Fig. 4 represents the government's control of education in the UAE, both classroom-based and online. Although online learning is student-centred and student-controlled, ultimately the UAE government is still responsible for providing accreditation for courses offered in online formats. Study participants were careful to

note that, while the government plays a role on the side of the online learning facilitators, the actual learning process still remains under the control of the learner. The provision of all types of learning shown at the centre of Figure 4 benefits the UAE government insofar as it allows them to offer a full range of quality post-secondary education and skills training to all UAE citizens, despite religious or geographic barriers.

There are many aspects of the UAE government congruent with the need for and process of **building** a vibrant culture of distributed learning. For example:

- To provide an excellent telecommunications infrastructure for e-communications and e-learning.
- To encourage residents to use the Internet through open access to educational portals on the Internet.
- To encourage the study of e-business, the UAE government has established a “Knowledge Village” in Dubai, also home to the nation’s first Internet University.
- The Centre of Excellence for Applied Research and Training (CERT), a division of the Higher Colleges of Technology, has for several years offered short online courses and certificate programmes for professionals needing skills upgrades.

Other aspects of the UAE government indicate the future **challenges** facing distributed learning. These include:

- Face-to-face learning continues to be the dominant method of learning in the UAE. It will be difficult to inculcate a culture of online learning into this setting.

- High-level policy documents and government research relating to education have not traditionally been made public. Records showing licences granted to foreign-based online education facilitators are not widely available.
- Cultural differences can make it difficult for Western educational providers to operate locally. This includes differences of language and differences in curricula that may not be appropriate for Islamic societies.
- Restrictions on foreign ownership for Western educational providers that can make it difficult to operate in the UAE. Local partners must be included, and may not be easily found.
- All aspects of curriculum must be approved by the Ministry of Higher Education. The Ministry, though forward-looking in some regards, would be resistant to changes could be perceived as undermining traditional values.

### **Institutional Policy and Practice**

Despite marked progress in the delivery of all varieties of education, it is essential for institutions to reassess policy and reinvest in infrastructure. The Ministry of Education has sketched out a strategy, called “Policy 2020”, which forecasts educational development in the UAE up to the year 2020, following the advice of several five-year plans. Curriculum development and methodology will be adjusted to keep up with international developments so learners are adequately prepared to join the labour force. “Policy 2020” also seeks to bring in the most current technologies to classrooms from kindergarten through to secondary school.

As a further initiative, the UAEU aims to create a 'world-class' information technology college in Al Ain City, at a cost of an estimated Dh 250 million (US\$68 million). When completed, the IT College (as it is being called) will start with an initial enrollment capacity of 1300 students -- 300 males and 1000 females -- which will eventually be increased to 3000 -- 1200 males and 1800 female students. (United Arab Emirates Yearbook <http://www.uaeforever.com/Education/> viewed 04/04/2002)

In April 2002, the *Khaleej Times* announced the establishment of the "Knowledge Village" at Dubai Internet City, a co-operative effort of three universities, offering UAE citizens the first locally-developed online e-business course.

The third circle in Figure 4 represents institutional policy and practices. Traditional 'bricks and mortar' post-secondary educational institutions in the UAE are free to all UAE citizens. The policies and practices of these institutions are continually reassessed, not only to accommodate growing demand, but also to meet changing requirements of the labour market in the UAE

There are institutional policies and procedures congruent with the need for and process of **building** a vibrant culture of distributed learning. For example:

- A policy of open and free access to education.
- Higher education institutions centred on the undergraduate.
- Admission requirements are fulfilled solely by academic credentials.
- Linear learning path leads directly to the final examination.
- UAE institutions seek to provide an Islamic-based learning environment.

On the other hand, those in the UAE wanting to develop online operations in the framework of distributed learning will face a number of **challenges** that spring from institutional policy and procedures – such as:

- Financial constraints unlike traditional classroom learning, the financial burden for online education is shouldered by the student, as opposed to the government.
- Universal access necessitates more concrete admissions guidelines to keep enrolment at manageable levels and academic standards high.
- Institutions must liaise with the Ministry of Higher Education in order to acquire government accreditation for courses offered online.
- Facilitators must clearly differentiate between courses which are part of non-degree studies and those leading to recognized degrees.
- For learners to gain the necessary confidence in the skills they are acquiring, facilitators need to regularly assess students' progress through the use of constructive performance evaluations.

### **Future of Distributed Learning**

“Correspondence” education involved mailing materials to students in remote locations. Distance education was much the same except multi-media were involved. “Open learning” involved commitment to flexibility and open-ness but maintenance of single-mode (distance education – open university) institutions. These three concepts are now subsumed by “distributed learning” wherein the need for single-mode (distance) institutions has been superseded by a collapse in boundaries between face-to-face and off-campus operations.

Nowadays, “distributed learning” is more broadly employed to describe education that uses technology to improve teaching and learning. Instruction can take place at scheduled times (synchronously) or any time (asynchronously). Distributed learning technologies include the Internet (World Wide Web, e-mail, streaming audio and video), one-way and two-way videoconferencing, broadcast television, two-way audio conferencing, CD-ROMs, computer software, and audio- and videotapes.

Since the creation of the World Wide Web, educational institutions have been embroiled in discussions about *the knowledge-based society, best practices, distributed learning and empowerment* through knowledge and technology. These discussions are nested in discourses that construct “reality.” Discourses are not a reflection of some objective condition, but socially constructed to serve some interests better than others. They arise from relationships between power and knowledge (Boshier & Chia, 2000, p. 2) .

The centrepiece of distributed learning is the anticipated collapse in boundaries between face-to-face and online learning. Thus far, a lot of online learning has been touted as an alternative to face-to-face (classroom) education. However, it is becoming increasingly evident that much can be gained through “combination” approaches.

The three overlapping circles at the centre of Figure 4 portray “informal” online learning, “formal” online learning and (on the far right) the traditional face-to-face (or classroom) environment. Informal and formal online learning can extend the boundaries of an individual’s learning environment. According to study participants, online learning should occur not simply in a classroom, but at home, at work, and in cyber cafés and public libraries. There are no time constraints when teaching and learning happen in

cyberspace. Online learners develop skills for managing their own educational process as they collaborate with others in Internet-based knowledge construction communities. Many participants were strongly in favour of online learning because they believe it allows access to education by anyone, from anywhere, at anytime. The three approaches to distributed learning are interdependent and allow for learners to move easily from one learning setting to another. The three overlapping circles share a common border where learners can collaborate and trade information. Respondents praised the flexibility of online education and the ease with which individuals could transfer between face-to-face and online learning settings. This researcher anticipates there will be less of a clear distinction between the settings of distributed learning, as more traditional classrooms in the UAE incorporate Internet-based learning into their curriculums.

All over the world, the path of online learning has been a thorny one. Even western nations, with their veneration of individuality and “freedom”, have found it difficult to lace online learning operations onto the established procedures of face-to-face education. Despite the continued use of proxy servers in the UAE, the population is rapidly globalizing and efforts to stifle independent learners who use the Internet have done little to curtail their unrestricted access to most information. Comments of the 16 interviewees capture many crucial issues for the future of Muslim women. It is hoped that this – one of the earliest studies of Internet use in the Emirates -- has illuminated pertinent issues. As repeatedly mentioned by participants, there is a need for openness and desire for caution, and while navigating this middle path will not be easy, UAE women are making courageous strides through the new frontiers of the Internet and IT-



based careers. Each step brings them closer to political and social empowerment and global cultural understanding.

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**APPENDIX A:**  
**INTERVIEW QUESTIONS ASKED OF PARTICIPANTS**

## Questionnaire Outline

### A. Personal Information:

Please indicate your age range:

1. Age:

☐ 15-19   ☐ 20-25   ☐ 26-31   ☐ 32-37   ☐ 38 – 43

2. Marital Status:

☐ Single   ☐ Married   ☐ Widowed   ☐ Divorced

3. Professional Status: (Check all that apply)

☐ Student   ☐ Work Part-Time   ☐ Work Full-Time   ☐ Housewife

Educational Status: (Check the highest level achieved)

☐ Still in high school  
☐ High school diploma  
☐ College certificate or diploma  
☐ Some university  
☐ Undergraduate degree  
☐ Graduate degree

Place of education:

☐ Educated in the UAE only  
☐ Some education outside the UAE  
 If so, where? \_\_\_\_\_

4. You have access to a computer at: (Check all that apply)

☐ School   ☐ University   ☐ Work   ☐ Home   ☐ Cyber café / Internet kiosk

5. You have access to the Internet at: (Check all that apply)

☐ School   ☐ University   ☐ Work   ☐ Home   ☐ Cyber café / Internet kiosk

6. You use the Internet: (check all that apply):

- ☐ As a communication media (e-mail, chat)
- ☐ To make new acquaintances
- ☐ To build social networks
- ☐ To access entertainment
- ☐ To access job opportunities
- ☐ To pursue educational opportunities
- ☐ To learn about other societies
- ☐ For research
- ☐ For online shopping

In an average week, how many hours do you spend on the Internet?

- ☐ Less than 1
- ☐ More than 1 but less than 5
- ☐ More than 5 but less than 10
- ☐ More than 10

7. What do you use the Internet for most often? (check only one)

- ☐ As a communication media (e-mail, chat)
- ☐ To make new acquaintances
- ☐ To build social networks
- ☐ To access entertainment
- ☐ To access job opportunities
- ☐ To pursue educational opportunities
- ☐ To learn about other societies
- ☐ For research
- ☐ For online shopping
- ☐ Other Please specify \_\_\_\_\_

## **B. Attitudes, aspirations and cultural values: Interview Questions**

1. What does Information Technology mean to you? Please explain.  
How do you perceive Information Technology? Can you elaborate?
2. As a UAE Women, do you think Information Technology opens new career opportunities for Women? Please explain and give examples

3. Do you think the Internet is helping you to pursue your education?
4. Do you feel online education provides learners with adequate opportunities for socialization?
5. Do you think online learners learn as efficiently as students in a formal classroom setting?
6. Do you think the Internet has affected your confidence in your English skills?
7. Has Information Technology exposed you to different cultures?
8. Has your exposure to the Internet influenced any of your attitudes? (feelings or emotions about ideas or individuals)
9. Has your exposure to the Internet influenced any of your cultural values? (principles or qualities you consider important)  
  
If the answer is yes, which of your cultural values have been influenced?
10. Does what you know about Information Technology inspire you to learn about women's accomplishments in IT outside the UAE?
11. If you have the choice, will you try to work in the field of Information Technology?
12. Do you think technology has influenced your life as a woman in UAE society, in terms of changing your attitudes toward family life?
13. Do you think the Internet has influenced your cultural values as a Muslim female from the UAE? (customary beliefs, social forms, and material traits of a racial,)
14. Do you think the Internet has influenced your personal aspirations, particularly those relating to your pursuit of a career outside the home?
15. Do you anticipate that Information Technology will have a positive impact on women's education in the UAE over the next 10 years?
16. Do you anticipate that Information Technology will have a positive impact on the careers of women in the UAE in the next 10 years?

17. What is your worst experience with the Internet?
18. Did you learn anything from your negative experience online?