DESIGNING AN E-EDUCATION SYSTEM IN THE UNIVERSITY OF MUSTANSIRIYAH BAGHDAD, IRAQ

by

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DEDICATION

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To

THE PURE SPIRIT OF MY FATHER

MY GREAT MOTHER

& WHOM I LOVED

ACKNOWLEDGMENT

In the name of Allah, the Beneficent, the Merciful.

" God grants wisdom unto whom He wills, and whosoever is granted wisdom has been granted wealth abundant. But none bears this in mind save those who are endowed with insight "

Al-Baqarah: 269

All praise is to Allah who has enabled me to accomplish the challenging task of pursuing knowledge and wisdom

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LIST OF ABBREVIATIONS

3G	Third Generation of The Mobile Technologies
ADL	Advance Distributed Learning
ALT	Advanced learning Technology
BHK8DM	Badrul Huda khan Eight Dimension e-Learning Framework
CB	Capacity Building
CBT	Computer-Based Training
CIT	Computer Information Technology
CMS	Course Management System
CRC	Class-Responsibility-Collaboration
CSF	Critical Success Factor
DB	Data Base
DL	Distributed Learning
EDITN	E-Education Information Technology Network
EELU	Egyptian E-Learning University
EIS	Enterprise Information System
ESCWA	The Economic Commission for Western Asia
EU	European Union
HCI	Human Computer Interface
HQ	Headquarter
HR	Human Resources
HRCB	Human Resources Capacity Building
IBT	Internet-Based Training
IC^3	Internet and Computing Core Certification
ICT	Information and Communication Technology
IHE	Iraqi Higher Education
IS/IT	Information System/ Information Technology
ISA	Internet Security and Acceleration
IVSL	Iraqi Virtual Science Library (IVSL)
KM	Knowledge Management
LAMS	Learning Activity Management System
LCMS	Learning Content Management System
LMS	Learning Management System
M	Mean
MIS	Management Information System
ML	Mobile Learning
MLE	Managed Learning Environment
MoHESR	Ministry of higher Education and Scientific Researches

Moodle	Modular Object-Oriented Dynamic Learning Environment
MySQL	Multithreaded, multiuser SQL Database Management System
NeLC	The National e-Learning Centre
NIC	Network Interface Controller
OFL	Open/Flexible Learning
OL	Online Learning
OLAT	Online Learning And Training
OLSS	Online Learning Strategies Scale
OS	Operating System
OUM	Open University Malaysia
PDF	Portable Document Format
PHP	Hypertext Preprocessor
PS	Proposed Strategy
QA	Quality Assurance
SCORM	Sharable Content Object Reference Model
SNMP	Simple Network Management Protocol
SPSS	Statistical Package for the Social Sciences
SQL	Standard Query Language
St.D	Standard Deviation
TQM	Totally Quality Management
UN	United Nation
UNESCO	United Nation Education Science Culture Organization
UoMust	The University of Mustansiriyah
USM	Universiti Sains Malasysia
USM-SDE	Universiti Sains Malasysia-School of Distance Education
VCLE	Video Conferencing Learning Environment
VET	Vocational Education and Training
VLE	Virtual Learning Environment
VPN	Virtual Private Network
VSAT	Very Small Aperture Terminal
WB	World Bank
WNIC	Wireless Network Interface Controller

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LIST OF PUBLICATION & SEMINARS

	Research Title	Type	Date	Country
1	E-Learning Model for the University Of Mustansiriyah in Baghdad, Iraq	3rd International e-learning future Conference	10-15 May 2010	Istanbul Turkey
2	E-Learning Strategy for the Iraqi Higher Education Sector	5th International Conference on e-Learning, in Penang, Malaysia	12-13 July 2010	UK
3	ICT Human Resources Building Capacity Plan for The University Of Mustansiriyah E-Learning Project, Baghdad – Iraq 2011-2012 PEARSON-MALAYSIA Publications	4th International Malaysian Educational Technology Convention 2010	26 - 29 September 2010	Kuala Lumpur Malaysia
4	National e-learning Strategy to Enhanced and Enriched the Iraqi University	Journal of US-China Education Review	Saturday, August 7, 2010	USA
5	The Readiness for an e- Learning System in the University of Mustansiriyah (UoMust) Baghdad-Iraq	Malaysian Journal Of Educational Technology ISSN 1675 0292	December 2010	Malaysia
6	Harmonizing Blended Learning in the University of Mustansiriyah, Iraq	First International Conference of the Omani Society for Educational Technology 2010	6-8 December 2010	Muscat Sultanate of Oman
7	Khan Frame Work Modifications for e-learning in The University of Mustansiriyah , Baghdad-Iraq	The Seventh International Conference on eLearning for Knowledge-Based Society	16 – 17 December 2010	Bangkok, Thailand
8	Adoption E-learning Framework for the University of Mustansiriyah (UoMust) , Baghdad , Iraq - Final evaluation	Malaysian Journal Of Educational Technology	December 2010	Malaysia
9	ICT Capacity Building Plan for the University of Mustansiriyah (UoMust) , IRAQ , Blended Learning Project	The Second International Conference of E-learning	21-23 February 2011	Riyadh KSA
10	The Hardware Specifications for the e-Learning Framework in the University of Mustansiriyah (UoMust) , Baghdad – Iraq	Malaysian Journal Of Educational Technology	March 2011	Malaysia
11	E-Learning Strategy for the Iraqi Higher Education Sector	Electronic Journal of e-Learning , EJEL	2011	UK
12	The way to Establish E-Education Networks in Iraqi Universities (MUSTANSIRIYAH UNIVERSITY CASE STUDY)	Monograph in LAP LAMBERT Academic Publishing GmbH & Co. KG	February 2011 Forthcoming	Saarbrücken Germany
13	Orbit ELAMEER-IDRUS E-Education Framework for the University of Mustansiriyah	ToJET – Turkish online journal of Educational Technology	May 2011	Turkey

PEREKAAN BENTUK SUATU SISTEM E-PENDIDIKAN DI UNIVERSITI MUSTANSIRIYAH , BAGHDAD , IRAQ

ABSTRAK

Universiti Mustansiriyah (UoMust) merupakan salah sebuah daripada universiti awam yang terbesar di Iraq. Malangnya, ia hampir musnah keseluruhannya sewaktu Perang Teluk pada tahun 2003. Meskipun kerja pemulihan sedang dijalankan, ia sentiasa menghadapi pelbagai masalah yang lazimnya dialami semua universiti pada hari ini - ketidakhadiran, sindrom '*brain drain*', kekerasan aniaya yang berterusan, kekurangan keselamatan, dan kekurangan alat bantu mengajar dan teknologi pendidikan. Perekaan suatu sistem e-pendidikan untuk UoMust (yang dapat menambahbaik peluang pengajian kepada kira-kira 41000 individu) adalah objektif utama bagi penyelidikan e-pendidikan ini. Penyelidikan kajian kes pendidikan kebanyakannya kualitatif dengan menggunakan data yang berbentuk deskriptif. Berdasarkan sifat penyelidikan ini yang dijalankan oleh seorang ahli teknologi dan pendidik, kedua-dua kaedah kualitatif dan kuantitatif telah digunakan dan suatu kerangka penyelidikan rekaan instruksi umum ADDIE turut digunakan. Penyelidikan kajian kes ini merupakan hasil penyelidikan mendalam dan utuh terhadap keadaan yang terdapat du UoMust pada hari ini. Ia juga merupakan suatu penyelidikan yang terjelas kendiri dengan menggunakan metodologi bersistem, pengumpulan data dan analisis maklumat dalam mencapai hasil yang ditujui. Penyelidikan juga mencungkil hasil kajian sebelumnya dan kesan gabungan kesemua hasil penyelidikan telah membuahkan suatu system e-pendidikan yang menyeluruh yang terdiri daripada suatu kerangka e-pedidikan yang unik, prasarana perkakasan dan perisian komputer yang lengkap, suatu strategi bagi menerima dan melaksana system tersebut dengan perancangan pembangunan kapasiti sumber manusia yang holistic untuk UoMust. Penyelidikan ini

ialah penyelidikan e-pendidikan untuk semua kakitangan teknikal dan akademik serta para indivividu yang lain yang berkongsi objektif penyelidikan yang releven.

Ia juga berfungsi sebagai teknologi pembangunan dan penyelidikan pemindahan teknologi yang memperolehi hasil yang disasarkan melalui penggunaan peralatan kajian yang spesifik dan soalan-selidik penyelidikan yang direka khas. Justeru itu, ujian yang dapat dipercayai, relevan dan sahih terhadap subjek dan objektif penyelidikan telah dilaksanakan (sesetengahnya sebelum tarikh resmi pencalonan) dengan menggunakan Skala Likert enam bahagian. Data telah diperoleh daripada sampel seramai 287 orang ahli akademik UoMust dan 350 orang pelajar yang menujukkan sikap yang positif keseluruhannya di kalangan para pelajar manakala para akademik positif terhadap pelaksanaan sistem e-pendidikan di UoMust. Perekaan sistem e-pendidikan dimulakan dengan kajian kerangka e-pembelajaran yang sedia ada dan model yang telah diguna pakai oleh universiti-universiti di merata dunia, iaitu suatu rekaan instruksi pedagogi yang berasaskan kerangka teori octagonal e-pembelajaran B.H.Khan. Berikutan kajian teliti dan mendalam, kerangkan Khan didapati tidak mencukupi untuk memenuhi keperluan genting UoMust. Tambahan pada itu, sejarah e-pendidikan yang dilaksanakan Universiti Sains Malaysia (USM) telah menginspirasikan suatu system kerangka unggul yang baru yang sesuai untuk UoMust; sebuah kerangkan e-pendidikan orbital yang mempunyai rekaan bagi meliputi kesemua dimensi pendidikan di UoMust. Ini merupakan kerangka e-pendidikan yang pertama yang mengambilkira kestabilan, kelestarian, kepiawaian dan *'modularity'* di dalam pendidikan. Suatu rekaan persekitaran dan e-pendidikan berteknologi khas telah dihasilkan dan berasaskan kepada pelbagai perisian computer; *Moodle, LAMS* (*Learning Activity Management System*) dan JUSUR, disamping portal sistem e-pendidikan USM-SDE (*School of Distance Education*). Kerangka e-pendidikan orbital merupakan suatu yang diperlukan oleh

UoMust. Bagi menambahbaik implementasi system, suatu strategi e-pendidikan kahs pendidikan berdasarkan kepada pembelajaran campuran (*blended learning*) telah dibentuk dan perancangan pembangunan kapasiti sumber manusia selama dua tahun telah disediakan. Soal-selidik yang telah direka dan diuji telah diedarkan secara rawak ke[ada 231 orang ahli akademik di UoMust untuk melaksanakan proses pasca penilaian bagi keseluruhan sistem. Beberapa orang individu telah ditemuduga oleh pakar-pakar dan ini telah melengkapkan lagi bahagian akhir penyelidikan ini. Kesemua hasil ujian statistik telah dikendalikan menggunakan SPSS ver.14. Sistem e-pendidikan UoMust (hasil terus penyelidikan ini) bukan sahaja bermanfaat kepada UoMust tetapi juga kepada keseluruhan pendidikan tinggi bagi masyarakat Iraq keseluruhannya. Kebanyakan daripada ahli akademik (87%) yang ditemuduga menyambut baik kerangka sistem e-pendidikan ini dan mengalakkan penggunakannya. Seramai 72% bersetuju is meliputi kebanyakan isu-isu e-pembelajaran, dan juga ingin melihat isu-isu yang masih ada di dalam kerangka terdahulu ditangani; kestabilan, kelestarian, *'modularity'* dan piawaian kebolehan pembelajaran. Ia menjanjikan suatu model yang patut dicontohi dan bagaimana teknologi dan academia seiringan.

DESIGNING AN E-EDUCATION SYSTEM IN THE UNIVERSITY OF MUSTANSIRIYAH, BAGHDAD, IRAQ

ABSTRACT

The University of Mustansiriyah (UoMust) is one of the largest public universities in Iraq. Sadly, it was almost completely destroyed during the 2003 Gulf War. Though restoration work is underway, it continues to face problems common to all Iraqi universities today – absenteeism, the brain drain syndrome, continued violence and lack of security, and inadequate teaching material and educational technologies. Designing an e-education system for UoMust (which would enhance learning opportunities for about 41000 individuals) was the main objective of this e-education research. Educational case studies researches are mostly qualitative, using data which is descriptive in nature. Based on the nature of this research that was conducted by both technologist and educationalist, both the qualitative and quantitative methods were employed and a general ADDIE instructional design research framework was utilised. This case-study research is the result of a thorough, in-depth investigation into the situation found in UoMust today. It is also a self-explanatory research using systematic methodology, data collection and information analysis, in order to reach targeted results. It also draws from results of previous studies and the combined effect of all the research work has resulted in a comprehensive e-education system comprising a unique e-education framework, a complete software and hardware infrastructure, a strategy to adopt and implement the system with a holistic human resources capacity building plan for UoMust. This research is an e-education research for all academic and technical staff as well as other individuals who share the relevant research objectives. It also serves as a building technologies and technology transfer research, obtaining targeted results through the use of specific research instruments and well-designed research

questionnaires. Thus, valid, relevant and reliable testing of the research subject and objectives were carried out (some even prior to the official commencement date) using a six-point Likert scale. The data obtained from a sample of 287 UoMust academics and 350 students show a generally positive attitude among the students and academics towards the implementation of an e-education system in UoMust. The design of the e-education system started with a study of the existing e-learning framework and model adopted by universities around the world, and that is, the well-designed instructional pedagogical base B. H. Khan octagonal theoretical framework for e-learning. After careful study and in-depth investigation, it was found that Khan's framework was not adequate to meet the dire need of UoMust. Additionally, the rich history of e-education run by Universiti Sains Malaysia (USM) also inspired a new, enhanced framework system ideally suited for UoMust: an orbital e-education framework designed to cover all the education dimensions in UoMust. It is the first e-education framework that takes into consideration the stability, sustainability, standardization and modularity in education. A special technological e-education design and environment have been completed and these are based on various software: Moodle, LAMS, and JUSUR, along with the USM-SDE e-learning portal standards. This orbital e-education framework is exactly what UoMust needs. To further enhance the implementation of the system, a special e-education strategy based on blended learning was created and a complete human resources capacity building plan for two years was completed. A well-designed and tested questionnaire was distributed at random to 231 individuals among the UoMust academics in order to conduct the post-evaluation process for the complete system. Some individuals were interviewed by experts and this completed the final part of this research. All the statistical test results were derived using SPSS ver. 14. The UoMust e-education system (which is the direct result of this research) is certain to

benefit not only UoMust, but the whole Iraqi higher education community. Most of the academics (87%) interviewed welcomed the orbital e-education framework and would gladly encourage its adoption and use. Three out of four (72 %) agree that it covers most of the e-learning issues, and were happy to see attention given to areas not previously dealt with in earlier frameworks: stability, sustainability, modularity, and standard ability of learning. It promises to be an exemplary model of how technology and academia can work hand-in-hand.

CHAPTER ONE

INTRODUCTION

1.1. PREAMBLE

Previously, when we heard about the word of the world, directly we will be afraid inside ourselves because of this big world, huge distances between cities and countries, but this big world becomes truly a small village because of ICT revolution, and this big world becomes very small for everyone and the huge distance cancelled and neglected pursuant to this revolution..

Nothing in this small world is complete with everything, and it is like impossible to find anything complete, and the complete is only for **ALLAAH ALRAHMAN ALRAHIM**

From this standpoint, the organization of the thesis was achieved by dividing the thesis into 8 (eight) chapters and it's was structured using the pyramid logy concept.

Chapter.1 presented the Introduction, and it consists of the introduction and a review of related subjects about Iraq and its long history and present the situation of the this country now days, higher education in Iraq, the university of Mustansiriyah which is the core of this research, e-learning constraints in Iraq, and the main corners of research (background, rationale, statement of the problem, objectives, questions, significance, limitation, methodology). The chapter ends with some definitions of the terms and a conclusion.

Chapter.2 presented the literatures review and it starts with why e-education and its capacity, then move to review some related work on e-learning models and frameworks, e-learning projects in some countries, e-learning projects in some international universities and some other studies that it is related to the research work and it was useful to achieve the research goals. All the stated works was studied, reviewed and discussed in this chapter which ends with a summary in each part and a complete summary of what have been studied and reviewed and was useful to the research work.

Chapter.3 presented the Methodology and the Instruments and it has three parts , and start with instructional design and the general ADDIE instructional design research methodology, and the special ADDIE research framework for the University of Mustansiriyah have stated and described. The second part of this chapter was the Methodology framework steps and the procedures used to achieve the goals of the research and it was three research work phases. The third part was the research instruments and after each instruments used in the research work, the statistical procedures used to obtain the results of the instruments was tabled. The last part was the likert scale that was used in all the questionnaires. The researcher used this way in order to give the reader the clear view of the real situation in the UoMust and Iraq before starting the experimental works and designs.

Chapter.4 presented the e-education framework, and it has start with first e-learning framework that designed for the university and the methodology used to design it (Modified Khan e-learning framework), and in the second part was the orbital final e-education framework for the university of Mustansiriyah and end the chapter with the frameworks conclusion.

Chapter.5 presented all the technological needs for the orbital e-education framework in UoMust that was calculated, chosen and stated, from the hardware and software in details and designs layouts with even the numbers required for the university after study its learning system and the number of students in it, and the chapter ends with conclusion about the UoMust technological needs.

Chapter.6 presented the UoMust e-education strategy that was proposed for the university with its complete details and how to establish a national e-learning center in Iraq, and the chapter ends with conclusion about the proposed strategy (PS).

Chapter.7 presented the human resources capacity building plan proposed for the university according to the ICT skills survey that have achieved during research work. All the HRCB plan details is stated with the complete set of the tables , flow charts and time table and the chapter ends with conclusion about this plan.

Chapter .8 is the last thesis chapter and it is start with the presenting of the post evaluation questionnaire results with its final discussion, then the conclusion for all the research work and the future recommendations for future similar researches and works.

At the end the researcher listed all the references that was used in the research work and was very useful to complete this thesis and work.

A guide to the content in Chapter 1 summarized in the schematic as shown in the Figure 1.1.

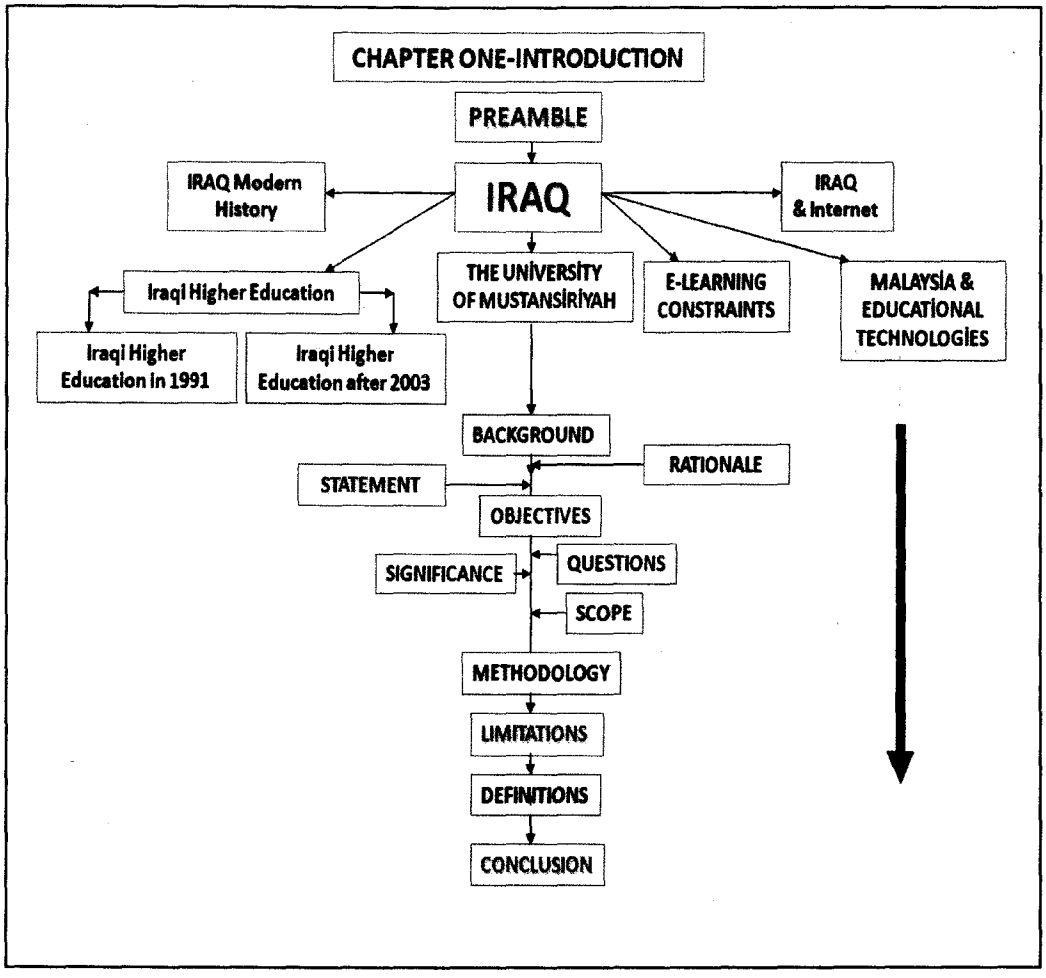


Figure 1.1 : The Schematic guide of the chapter One

With scientific and technological enormous developments and the use of information and communication technology in education, scientific research and management (MIS) and the emergence of the information revolution, it has become an urgent need to the development of education and to develop and produce new strategies.

Computers and all ICT technologies became omnipresent in any place in the world now, and it becomes the most important part of any place, especially in education working environments now days.

One of the ICT products of this information revolution was the advent of e-learning , which is adopted on the progress of the multimedia capabilities in ICT and the Internet, as the main and the strategic option for the development of education and some goes that the e-learning is the future of the learning process, and others to identify it as the future of the learning or teaching process , and for sure the way to the way to the information based society is start from adopting e-learning (Figure.1.2).

"E-learning is the overarching umbrella that encompasses education, information, communication, training, knowledge management, performance management.....etc. It is the web-enabled system that makes information and knowledge accessible to those who need it, when they need it-anytime, anywhere" (Accrescent Infotech, 2009).

To apply e-education we must re-engineering the learning institutions to accept and reinforced it with all the up to date technologies that is need.

Making the learner as the core of the learning process was a big dream for most of the educators because they do not have such tools that help them to transform it from the teacher to the learner, but this dream becomes a true because of the ICT revolution and e-learning.

It is well known to all that adopting e-education need for some special needs and these sophisticated technical needs when it applied in universities and learning institutions that have been administrative perfect build with high organization standards on scientific bases in the framework of educational planning and education management, for sure the achievement of the aims of education will great.

Higher Education by it all types and levels are responsible and holds the key to solving most of the living problems and challenges in the world. Higher education organizations and universities in this new century are driven by the technology and

conviction that will help for sure to remove all the old limitations, foster innovation, enable both students and teachers to live up to their full potential, and the concept of the education in this revolution of the technologies that students are the core of the learning and education process. The combination of learning and technology give us high value integrated learning, and it is e-education, which is anytime and anyplace. It is being presented as the next education evolution. (Selim, 2005; Suzuki, 2009).

Technology is the most important element and the rolling key for the e-education and for the further options in e-learning. It has the limitless potential and controls its progressed is impossible mission to anyone. Researchers are currently widely distributed and published by the internet. This progressed and the flexibility in e-learning appears as a result for the technology growing up in the computers' capabilities to support the media (A/V) , speed increasing, bandwidth increasing, storage, memory, and the reducing in sizes and shapes and its mobility. "Enthusiastic claims for technology's ability to provide high-quality education for all"(So, 2005). Most of the world countries targeted to build information based society, which is leading for sure for better future. To reach it, we need a lot of hard working in strengthening the information infrastructures, promote innovation in ICT and big and catholic plans for building capacity for human resources. E-learning is one of the tools that must be considered in building this society(MBRF & UNDP, 2009).

E-learning has invaded a lot of world countries and in the way to the other and "become an important part of most modern educational systems" (Bates, 2001).

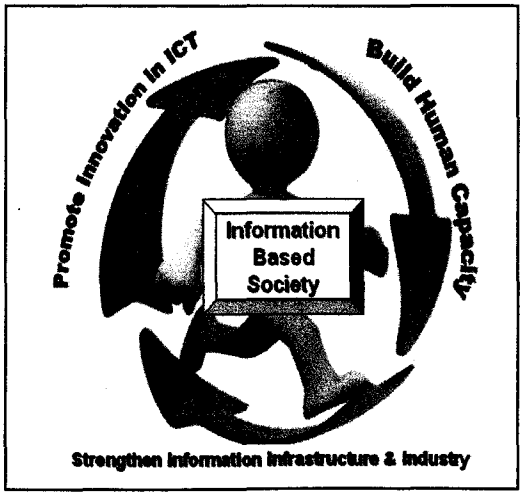


Figure.1.2: The Way to the Information Based Society

1.2. IRAQ

It is very difficult to anyone to write about his country, especially a country like an Iraq now days, but U will try and Iraq is the story of the continuous wars and missing stability along the human history, and it is the land that never knows the meaning of peace for long times along 4000 years but it knows the ward of proud and the greatest several times.

IRAQ was known previously as Mesopotamia or the land between the two rivers and now known as Republic of IRAQ with the area of 438317 Sq. Km area (167,174 sq. mi) , it is one of the Middle East Arabs Islamic countries, which are located geography in the mid of the heart of the world in the middle east zone and its federal capital is the famous Islamic city Baghdad , This country is bordered by State of Kuwait and Kingdom of Saudi Arabia (KSA) from the south, Islamic Republic of Iran (IRI) from the west, Republic of Turkey from the north, and Syrian Arab Republic, Hashemite Kingdom of Jordan from the west. The country slopes from the mountains over 3,000 meters (10,000 ft.) above sea level in the north side only along the border with Iran and Turkey to the sea-level in the middle and south of it and has just one port to the sea (Arabic Gulf) in the Basra governorate. As shown in the Figure 1.3 that shows the Iraq geographical map.

Iraq is one of the richest countries in the world, and we can say easily and correctly that Iraq is a country over a lake of oil and alone has roughly a quarter of all of the world's oil. Much of the land in the west is a desert or wasteland but was discovered that contains huge amounts and different types of minerals.

The Tigris and Euphrates are the biggest two rivers in Iraq and the historic name of Iraq as the land between the two rivers comes from that. The ruins of Ur (birth and city of the Prophet Ibrahim), Babylon and other ancient cities are also in Iraq. (Husain, 2004) (Paris; UNESCO).

The last updated population in 2005 was 24,011,816 (26,783,383 in 2006, and all are roughly estimation), with an annual growth rate (2002 est.) of 2.82%. The ethnic groups and the social fabric consists are made up of Arab 75%–80%, Kurd 15%–20%, and

Turkman. Chaldean, Assyrian, or others are less than 5%. The religious denominations are 96%, Muslims, 3% Christians and less than 1% Yezidi, and the annual income of 2900 U$.

The main languages are Arabic, Kurdish, Assyrian, Armenian, and Turkish/Turcoman. Education is compulsory at the primary education level (age 6 to age 12 and through six years), the secondary education level takes six years before starting the tertiary level. Life expectancy is 67 years with a work force of 4.4 million (2000): Agriculture – 44%; industry – 26%; services – 31% (1989 EST.). Almost 75% of Iraq's population lives in the large flat or houses with tiniest areas of more than 250 m2.

The capital of Iraq is Baghdad, and it is in the center east of the Iraq area, also Basra, Mosul, Kufa are from the biggest cities in it.

Figure 1.2 : Iraq geographical map Which Shows that Iraq have 18 governorates, 3 of their represent the Kurdistan Region & the remain 16 is under the control of the federal government in Baghdad
Below also some other facts about Iraq :
Urban population (% of total population) 75
Life expectancy at birth (years)..... 67.3
Infant mortality (per 1,000 live births).....57.1
Child malnutrition (% of children under 5) 12
Access to safe water (% of population) 77
Illiteracy (% of population age 15+) 42
(The Amazing Worlds of Archaeology, 2011)

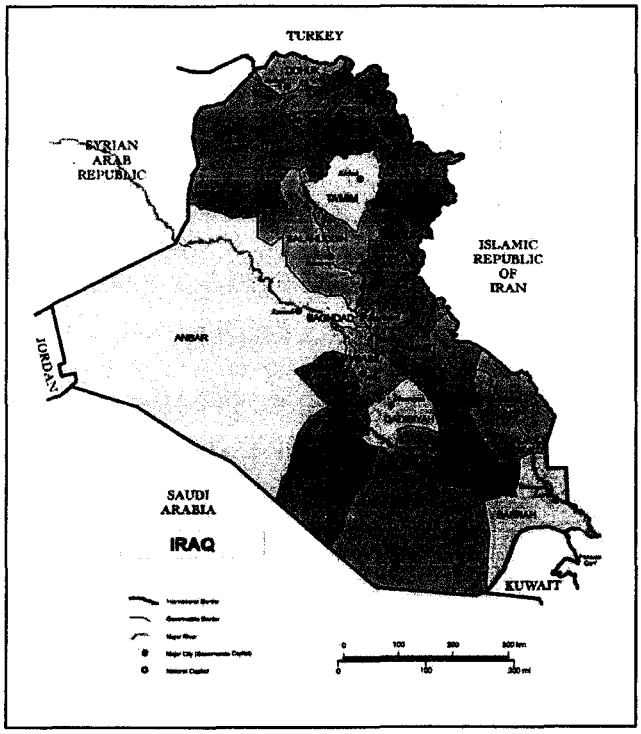


Figure .1.3: Iraq Geographical Map

1.2.1. Iraq Modern History

In 1917: at the end of the World War I, the league of the nations granted the Iraq land to the UK as a mandate and in 1932: UK granted independence to IRAQ as Hashemite Monarchy. In 1958: 14th of July revolution of the IRAQ and new country born as Republic of IRAQ and UK troops leave Iraq completely and in 1968: Arab Baath party controls the

republic after 17th of 1968 July revolution. In 1979: Saddam Hussein takes the role of control everything in Iraq and becomes the president of the republic of the Iraq and one year after that the first gulf war starts between the two Islamic neighboring countries Iraq & Iran and this war ended in 1988 after great loses for the both sides.

In 1990: Iraq invaded Kuwait and UN proved heavily economic sanctions against Iraq for Iraq's refusing withdrawal from Kuwait, and as a result in 1991: Start the second gulf war and at its end Iraq and eventually accepted the inevitable and ordered for a withdrawal of Iraqi forces from Kuwait.

In 1997: UN and government of IRAQ sign a MOU for oil against food and drugs for Iraqi people pursuant to the sanctions and to rescue the people of Iraq.

In2003: Iraq invaded by American led coalition forces under the United Nation Security Council Chapter VII of UN Charter adopted the resolution (678) which author UN member to use all necessary means to restore international peace and security. Their reason for those were the nuclear, biological, and chemical weapons. The war result was destroying Iraq and its infrastructures without finding the weapons.

1.2.2. Iraqi Higher Education

In the entire world, the influence of higher education has a great effect on the society through policy-making, funding, planning and others. Iraqi's people enjoyed. They have great universities with long and proud tradition of distinguished universities, which flourished in the period between "1960-1980". Education in Iraq is a completely free schooling system (Iraqi government invested huge amounts of the fund in education in the provision of free education from the primary level up to the PhD), also it was long seen as a good model of Arab education, fostering the strongest and most liberal educational system in the region" Higher education used to be one of the pillars who modern Iraqi society was based on, ever since the founding of the modern Iraqi country in 1921" (Paanakker, 2009a).

At the beginning, a private college of law was established in Baghdad in 1908. A number of other colleges were established in the city between the 1920 and the 1957, and in 1957 all these colleges like Science, Medicine, Law, Engineering and other were combined

as the University of Baghdad, and they choose a first president for this great university. During the period from 1963- 1968 four more universities were established, Al-Mustansiriyah University in Baghdad as well as universities in Basra, Mosul and Sulaymaniah.

In 1969 also further development of higher education in Iraq was made by establishment Foundation of Technical Institutes under the name of the Foundation of Technical Institutes at the beginning in 1969 reflecting the considerable demand for qualified technicians created by the flourishing oil industry, and big contracts was made with big Japanese company to build these institutes in very good standards.

In 1970, a decision announced by the government to establish the Ministry of Higher Education and Scientific Research, and they fix and announce the law of the ministry and give it the full authorities to control the Higher education sector and universities. Furthermore, give the established ministry the specified budget allocated for this sector to distribute it to the universities and cover it needs and the first law for the public service in higher education was announced in 1976 under the number of 124, which adjusted again in 1977 under the number of 125.

Between 1974 and 1978, Iraq send thousands of students to study outside Iraq and in all levels of education (BA , B.Sc. , M.Sc, M.A, PhD) and their destination was for UK, USA, France, Germany, and other Europe countries.

In 1979 Iraqi higher education have only six universities and the foundation of technical institutes, but it was very advanced and so progressed in comparison with the universities of the region.

In the second half of 1979, Iraq announced that he have a budget of 55 billion U$ as a free budget to build this country, but it was very short golden period and in 1980 the first gulf war start between the two Islamic neighbor countries Iraq and Iran, and as a result all Iraqi government plans for developing this country stopped because all the Iraqi budgets and money have to be push to the borders to keep and maintain the Iraqi army capabilities

and after another one year of the war and in 1983 Iraq start donating from other Arabic countries to keep the fighting capabilities.

So most of the universities that have been established at the years between 1980-1980, are established in difficult conditions of leakage the required budgets, leakage of the academic and administrative staff, missing of the suitable places and campus and without the ability of building a special universities campuses.

Most of the Technical Institutes that have been constructed in all governorates have been changed into universities campuses and for example, Babel University, Anbar University takes the place of the technical institute at that governorate to open the university in it, and also the University of Kufa takes the place of Agricultural Secondary school in Kufa to be the University main campus, which is for sure big mistakes.

1.2.3. Iraqi Higher Education In 1991

At August 1990, Iraqi government invade its neighbor Kuwait and in October and after Iraq refused to withdrawal, the UN security council decides to start the sanctions against Iraq, and it was a total economic and science embargo imposed against Iraq, and in response to that have gradually isolated, destroyed and impoverished the higher education sector and has erased and abolished much of its intellectual dynamism and independency (Harb, 2008). After the sanctions America leads around 33 countries under the name of UN and starts to prepare to fight Iraqi army in Kuwait in the second gulf war which starts in 17-1-1991 and end with withdrawing of the Iraqi army from Kuwait after destroying the Iraqi troops completely and also destroy all the civilization infrastructures of Iraq, and a statistical number shows us that the all the bridges in Iraq have been destroyed during the period between 17-1 until 28-2-1991.

After the war, a huge violence gaining its ignition from outside Iraq starts widely in south and north of Iraq in 1991 against the regime and all the governmental bodies have been burned and destroyed in Mar-1991, but the regime at that time controls the situation very quickly in south but failed in the north. The international society and the permanent members in UN security council encourage the Kurds at the north of Iraq to have an

announce their own federal governorates under the name of Kurdistan Region or Iraqi Kurdistan, and this region is officially governed by Kurdistan Regional Government and warned the Iraqi government in Baghdad not to try to return them to the central Iraq government control, and this situation is continuous after 2003 also and until now days.

After the second gulf war and the violence in 1991, most of the Iraqi universities start the stopping in all fields of the academic's life, one of the most damaging ramifications of control was the brain drain inspired by the persecution, imprisonment, and assassination of faculty members and students. Thousands of university professors left to work in neighboring countries or in the West. Those who remained in Iraq had to contend with a lack of new research materials and a dearth of contacts with the outside world. This situation was before 1991because of the first gulf war and became especially acute after the imposition of UN sanctions against people of Iraq following the first Gulf War in 1991. Overseas travel was soon denied to all people, most academics except those with close ties to the regime.

These universities with all the sector try breath again for a short time after the signing of the MOU between Iraq and UN in 1996 (UN resolution 986) and as a word of truth they try, but they fail again as all life sectors in Iraq. Just, for example, the Higher Education budget for the entire sector does not exceed 150 million U$ / year, and it has to be distributed for all the universities, research centers and ministry HQ. Most of the Higher education sectors requirements are always refused by the UN committee which it was responsible for monitor the Iraqi people need an import.

As a result for the sequence of continues wars and UN economic sanctions in years (1991-2003) have severely damaged all the Iraqi higher education system, and we can say easily that it effected it and return these universities long years backwards.

As a word of truth the Iraqi academics prove from the period 1980-2003, they are truly hard workers and have the capability to work under very difficult conditions, and their trail to keep the Iraqi universities in its level as possible was 50% successful at keeping these universities working and do not stop.

The final word that we can say it: Just before the 2003 the year of the third gulf war, all Iraqi universities are names only.

1.2.4. Iraqi Higher Education after 2003

After the devastation of most of the Iraq facilities and infrastructures following the United Nations Security Council economic sanctions (from 1991 to 2004) and the last war (Mar-Apr 2003), the whole of the country infrastructures was affected and damaged (*On March-April 2003 started the war on Iraq and delivered nearly (1750) tons equivalent to 400000 a nuclear bomb similar to the bomb dropped on Nagasaki Japanese and the equivalent of 5.5 times as much as the quantity, which was thrown in 1991 in the first Gulf war on Iraq*) , the higher education sector, directly or indirectly, disrupted the primary, secondary and higher education activities.

After April 2003, the demand for all types of higher education (Bachelors, Masters, and PhD) in Iraq has increased as a result of the social development process and due to the increase in family's incomes and the re-growth of the Iraqi economy. However, there were many sectors that suffered technical, secure, violence, political and financial problems, which delayed the construction, rebuilding, rehabilitation, capacity building and provision of the necessary requirements and supplies and higher education and education for sure is one of them (Paanakker, 2009b).

The traditional approaches of managing the higher education sector in Iraq have been rendered useless in the need to rebuild the educational environment with high academic standards. E-education with e-learning is identified as a student centered approach to teaching and learning and requires a conducive and good ICT infrastructure, communication technologies to build a rich learning environment.

Iraq's current higher education system have now two Higher Education Ministries, one is in the Main, and it is in the Federal governmental of Iraq, and it is located in Baghdad (www.moheiraq.org), and it become a federal ministry after fixing the Iraq Federal system and the constitution in Oct 2005. And the other is in North of Iraq in the Kurdistan Regional Government (www.mhe-krg.org). Both comprise 26 universities and three Technical

Education foundations and two commissions for computers and informatics and Medical Specializations) and all are under the management of the both Ministries of Higher Education and Scientific Research. This includes 236 colleges, 873 departments, 42 research centers.

((in this research the researcher focus only about the Federal Iraqi Area which is all eras of the Iraq without Kurdistan Region because they are another case and do not suffer from what the people of Iraq suffer under the wars and UN economic sanctions)).

Iraqi's current higher education system (all Iraq Arabic governorates in the Federal Government without the three Kurds governorates) comprises of 19 universities (philosophy of the government is same from during the last 20 years, and it is the policy of establishing a university in each governorate responded to both the demands of equity and the growing demand for higher education thus three new universities were founded after 2003), two Commissions for: 1-Medical Specialization and 2- Computer and Information, and the last are the Foundation of Technical Education, which has 27 Technical institutes and 13 Technical colleges under the management of the Ministry of Higher Education and Scientific Research (MoHESR) (www.mohesr.gov.iq) which is located in Baghdad and as shown in the Figure.1.4.

These universities and structures included more than 200 colleges, 800 departments and 28 research centers. The Iraqi Commission for Computers and Informatics offers the specialized courses for postgraduates in ICT.

There are in addition 27 private colleges offering programs in offering programmers in Pharmacy, Dentistry, computer sciences, business administration, economics, history, Islamic studies, languages, operation research and management. (Harb, 2008).The major fields of study offered by the Iraqi universities are: education, arts, law, social sciences, administration, economics, natural sciences, engineering and technology, medical sciences, veterinary medicine and agriculture. In the area of education there 24 colleges preparing teachers for secondary schools, seven colleges for primary and kindergarten school teachers and 7 for physical education. The University of Technology has a specialized college for

technical education, training teachers for vocational schools and technical institutes. Technical Education in Iraq comprises 37 Technical Institutes and nine Technical Colleges.

The UNESCO survey, in 2004 found a total student enrollment of 251175, 42% of whom are women. Almost 50% of the students are enrolled at the five universities in Baghdad. Two universities have less than 2000 students while Baghdad Universities enrolls two thirds of all students. Of the 19112 academics (universities teaching staff), 56% are male and 44% female; 43% of the teaching force is concentrated in Baghdad. The average staff student teaching ratio is 1: 13 being much more favorable than neighboring countries such as Jordan (1:30) and Saudi Arabia (1:20). There are, however, extreme variations among Iraqi universities from 1:43 to 1:4 and for example, the Foundation of Technical Education (FTE) have 2837 academics working as teaching staff. In Iraq the minimum educational qualification for a theoretical teaching and lecturing in higher education is a PhD's degree and in special cases, they can use Master degree .In the technical education minimum educational qualification for a theoretical teaching and lecturing Master degree.

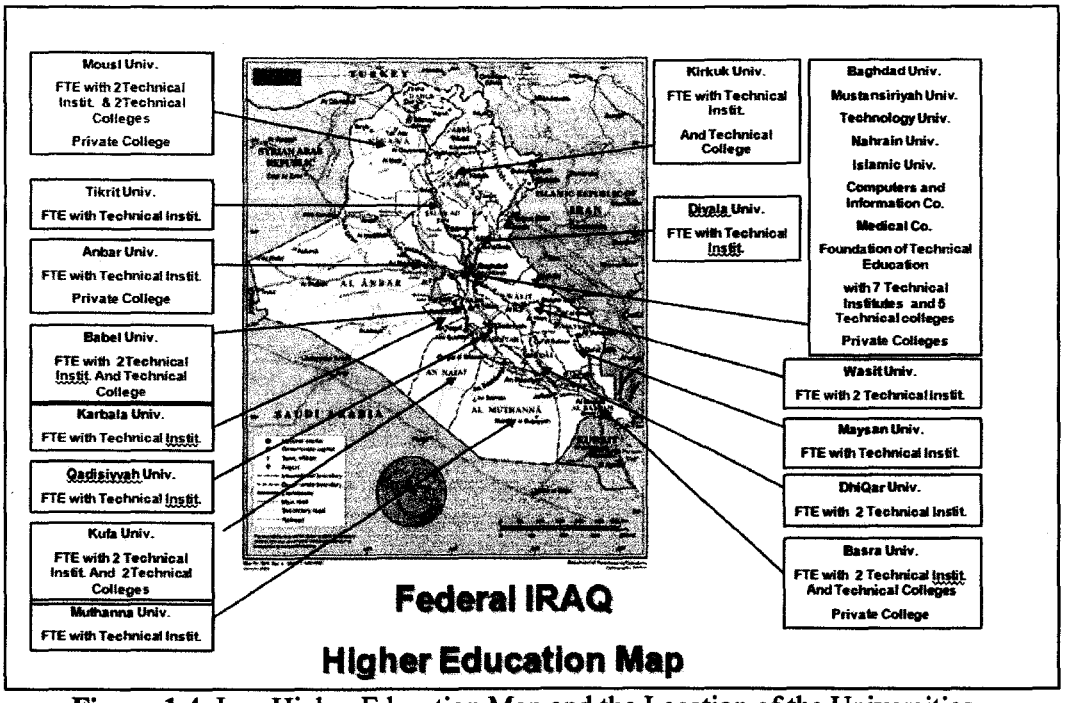


Figure.1.4: Iraq Higher Education Map and the Location of the Universities

However, one third of the teaching staff lacks a master's degree; 28% of the staff has doctorates, 39% masters and 33% bachelor's degrees(in FTE only not universities).

In the Technical Education of IHE, the Technical Institutes have (58540) students and in the Technical Colleges (7368) students with a total of about 66 000 students, 22% of whom are female. Thus there is a wide range in the size of universities as well as a lack of geographic equity in their distribution across the country. There is at least one Institute in each of the 18 governorates. Iraqi higher education has a strong orientation towards technical education through the technical institutes which had significant growth after their inception in 1969. This expansion was triggered by the oil boom, which created the need for large numbers of technical workers. Technical Institutes award a Degree while Technical Colleges award a Diploma and now days they start awarded B.Sc and even start the some post graduate with M.Sc. These qualifications cover over 60 fields of specialization in engineering, administration, medical subjects, agriculture and applied arts. The Technical Institutes resort with the Foundation of Technical Education under the direction of the MoHESR.

1.3. IRAQ & INTERNET

The Internet now days become the language, the food, the air, the friend, the book ....etc, and play a big role in the higher education progress and as has shown in the Figure.2.10 in (Chapter Two) that state for us that most of the achieved countries in education have a good internet service. In the last few years, universities reach the internationalization and globalization in the field of the higher education. Communication and information technologies represented by the Internet made the provision of higher education services across national borders possible. Internationalization and globalization promote mutual understanding between different countries; to attract skilled workers in a globalize economy , to generate additional revenues by higher education institutions; or to build a more educated workforce.(Aoki, 2005)

Internet services in Iraq even it is now widely used but is still a major problem in the higher education sector due to : 1-High international tariffs , 2- Lack of telecommunication capacity and 3-Lack of the correct infrastructures, and obtaining sufficient international bandwidth for delivering web pages.

The problem is enhanced by the Iraqi government and its communication ministry having monopoly for international bandwidth, hence Internet Service Providers (ISP) being dependent on it. This kind of scenario poses a major challenge to proper functioning and delivery of Audio Visual internet products in Iraq. For instance, some universities in Iraq use Two-Way satellite based Internet services using Very Small Aperture Terminals (VSAT).

Implementing a university network infrastructure with broadband the internet is a prerequisite and the target of the UoMust, but for such successful implementation of an e-learning system, it seems very difficult, and it is reflected also in the technological proficiency of the UoMust academic staff. A report to UNESCWA which is the United Nations Economic and Social Commission for Western Asia from the Iraqi commission of Computers and information, which is one the Higher Education Ministry bodies in Iraq, published at the end of year 2007 shows that there is a great weakness in all the ministry and universities infrastructures with lack of computers networking and expertise in both fields of hardware and software and in the UoMust the report shows that university have only five shared v-sat internet connection, and two of them is out of work and for sure now the situation in the university is better than what the report has stated. With students, it is a completely different situation especially because of the internet and mobile culture that exist widely among youth population in Iraq now days and according to the mobile companies it is over 20 million of Iraqi people currently using mobiles, which are about to be (70%) of the Iraqi population with three International companies, and they are still using the second mobile generations in a world reach the fourth mobile technology. Just a small example in front of us that the biggest mobile company in Iraq which is called Zain also work in Bahrain and their work in Iraq is at least double sized in Bahrain but this company builds a big e-learning center for the University of Bahrain(http://www.elearning.uob.edu.bh/) and do a lot of conferences and workshops and sponsored it while it did nothing in Iraq and have no influence. The Iraqi universities still far away from the internationalization and globalization concepts but they are in the way and will reach soon. The UN Figure.1.5 in 2007 and modified data in January

2010 shows that Iraq is in the lowest of the world countries for the number of the internet users, and we think that this graph even it is useful for us but is not correct because of the increasing of the Iraqi internet users with all bad living conditions in Iraq without electricity and continuous violence.

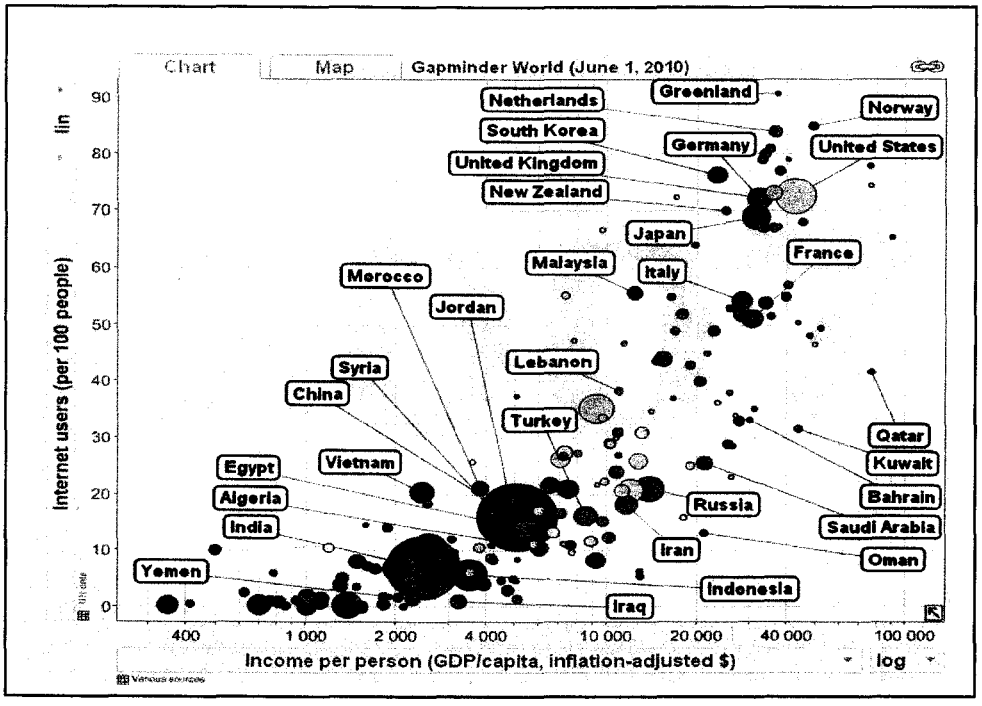


Figure.1.5: Internet Using in Some of the World Countries
Source : The Data from http://www.gapminder.org/data/

1.4.THE UNİVERSİTY OF MUSTANSİRİYAH (UoMust)

UoMust is one of the public universities in Iraq, which is located at the heart of Baghdad as shown in Figure 1.7 , and providing higher education studies by all it degrees (BA, B.Sc,, M.Sc, MA, & PhD. It was opened in 1963 again holding the name of the Complete University and in 1968, they change it into Al Mustansiriyah University referring to the (AlMustansiriyah Madresa) which built by Al Mustansir Billah in Baghdad, and it was the first university in middle ages in the Islamic world, and it was opened 5th of May - Rijiab in 1234- 631.

The Government of Iraq decided to re open this university in 1963 again as a part of returning Baghdad great cultural history after discovering its real place by the Directorate of

Iraqi antiquities to put their hands on the building and assumed its attention and restore splendor and beauty of was opened by the visit as an impact in the year (1380- 1960). In 1960 as shown in the left of the Figure 1.6.

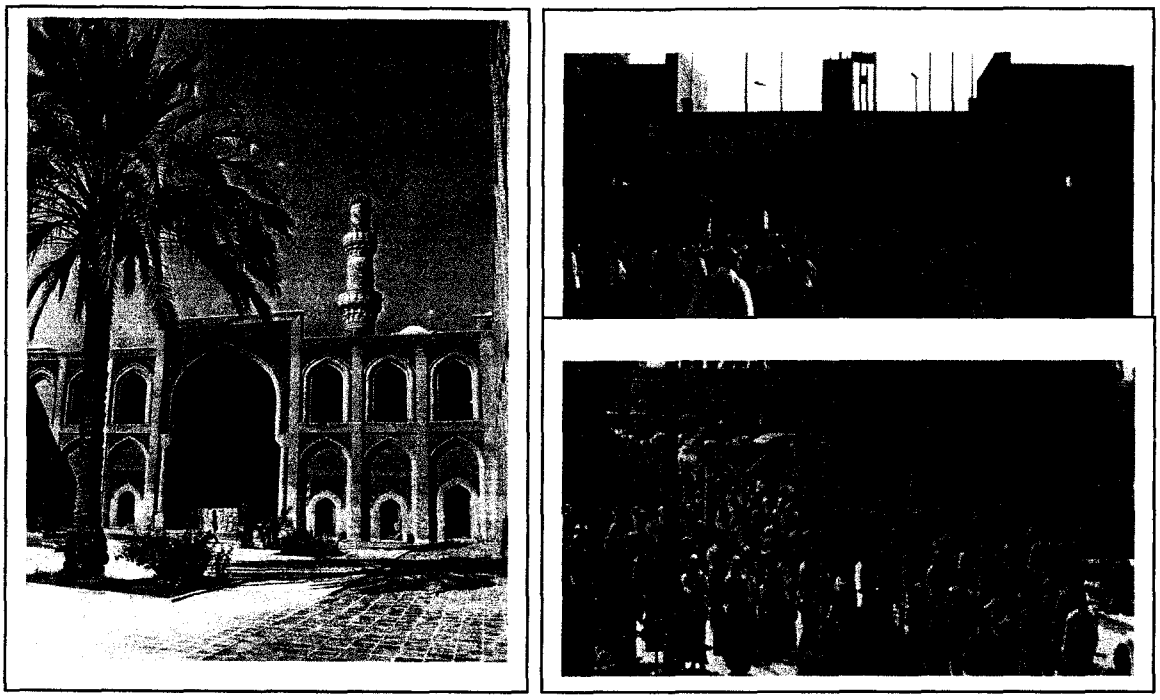


Figure.1.6: The Old Mustansiriyah School in Baghdad Picture and the New UoMust Pictures in 2008

UoMust was completely destroyed in 2003 wars in Iraq after it was looted and burned in very sad views and around 2500 computers despaired with all labs.

"Mustansiriyah University may be considered as an example of these damages. Mustansiriyah is the second largest university in Iraq and has an architectural design similar to the University of Baghdad. After the war, 5 of its buildings were extensively damaged, i.e., the university administrative building, presidency, College of Education building, Political Institute and the Student's Club" (Husain, 2004) (Paris: UNESCO2004).

Figure. 1.7 shows some pictures from inside the university after the 2003 war and these pictures taken by the researcher at its time.

In general only 10% of Iraq higher education sector remains in acceptable condition to re start again, but in UoMust it was less than this percentage, and the brave new leadership of the university which nominated after the free election in 17-5-2003 by its academic staff has succeeded to return the life to reunion UoMust and start again in 17-5-2003 to finish the academic year that stopped in Iraq because of the war, and it was the first university that starts again even there were no government or ministries and also without

salaries. This UoMust academic staff capability was noticed and remarked by the international world organizations (UN, USAID,UNESCO,UNDP) and other world countries and the elected HQ decided to rebuild this university according to the world international standards and made the correct decision to adopt the the e-education with blended learning (BL) to enhance and enriched face to face traditional learning method.

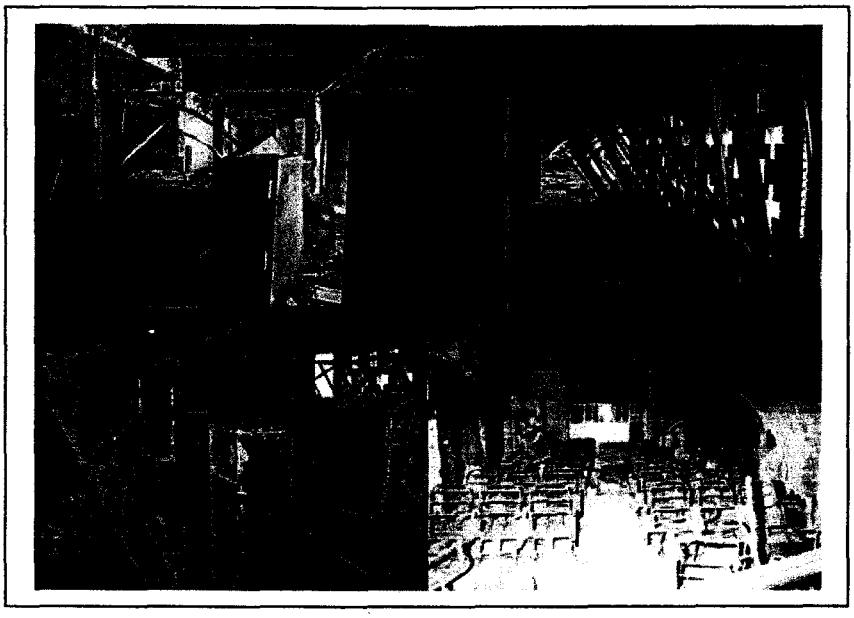


Figure.1.7 : 4 Pictures Show the Damages and Burned in UoMust

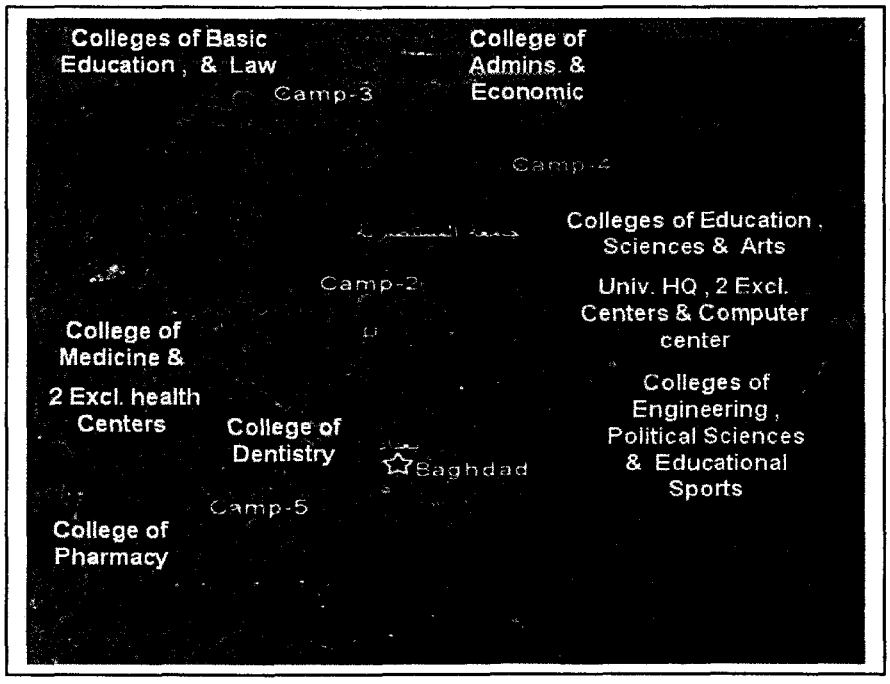


Figure .1.8: Baghdad Map shows the Locations of the UoMust

UoMust according to the numbers of the academics and students consider as one of the biggest governmental universities in Iraq and it is located in Baghdad and have a five campuses as shown in Figure 1.8.

The total number of the students in UoMust is 42315 students and this biggest number of the students is in Bachelor level (B.Sc or B.A) and it have two types of studies at this level. The first is the ordinary and known as the Public free studies (Morning studies, students nominated from the MoHESR according to their achievements in secondary schools, which is entered to the central Iraqi acceptance system that runs by the ministry), and the other is Private studies (Evening studies, and it is not free and open for all the ages) and this number is distributed between twelve as shown in Figure.1.9. UoMust also had five centers of excellence (1-Arabic and International Studies center, 2-National Center for Hematology, 3-Iraqi Center for Cancer Researches, 4-National Diabetics Center, and 5-Computer & Internet Center).

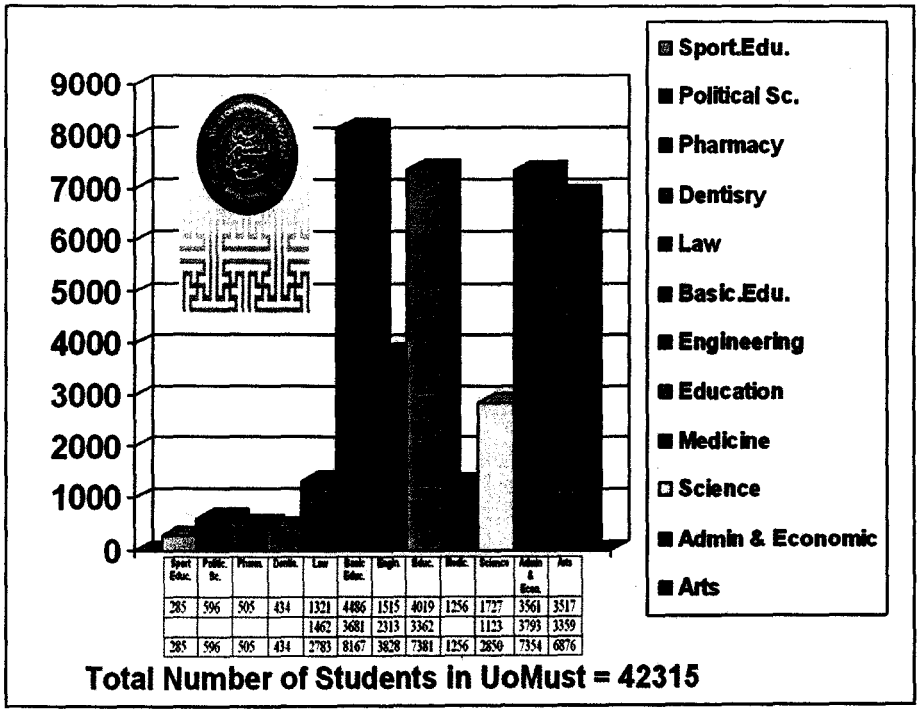
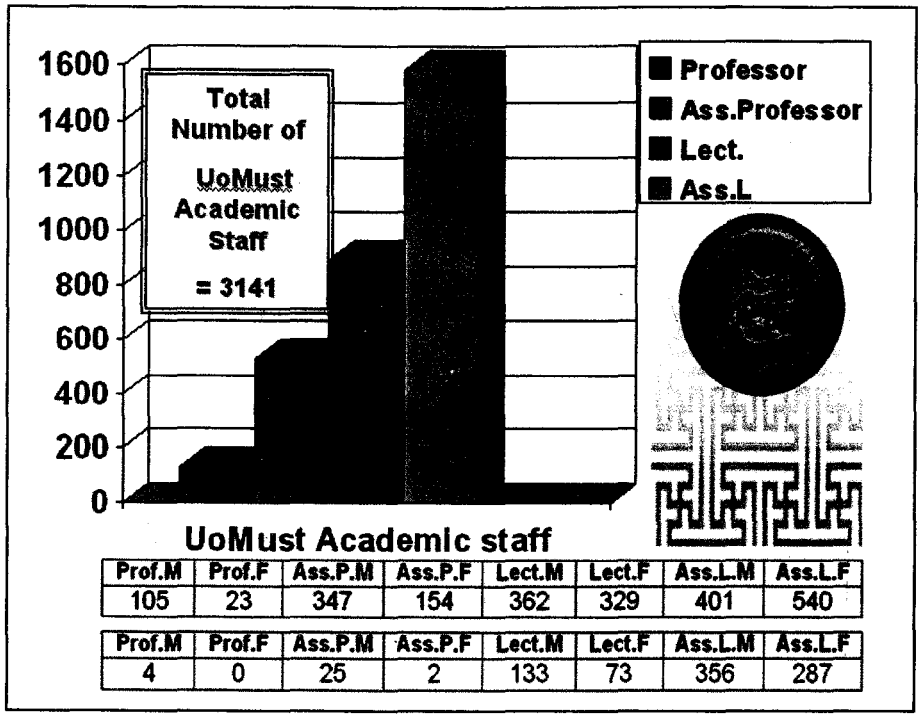


Figure.1.9: UoMust Students Distribution

The total number of the UoMust academics is 3141 distributed between (132 Professors, 528 Ass.Pofessor, 897 Lecturers, and 1584 Ass.Lecturers) as shown in

Figure.1.10. The number of the employs in the UoMust is 2955, and they are 1765 female and 1199 male and most of them holding bachelor degrees and this higher number is due to the high number of the security guards because of the violence in Baghdad as shown in Figure.1.11.



Prof.M	Prof.F	Ass.P.M	Ass.P.F	Lect.M	Lect.F	Ass.L.M	Ass.L.F
105	23	347	154	362	329	401	540

Prof.M	Prof.F	Ass.P.M	Ass.P.F	Lect.M	Lect.F	Ass.L.M	Ass.L.F
4	0	25	2	133	73	356	287

Figure.1.10 : UoMust Academic Staff distribution

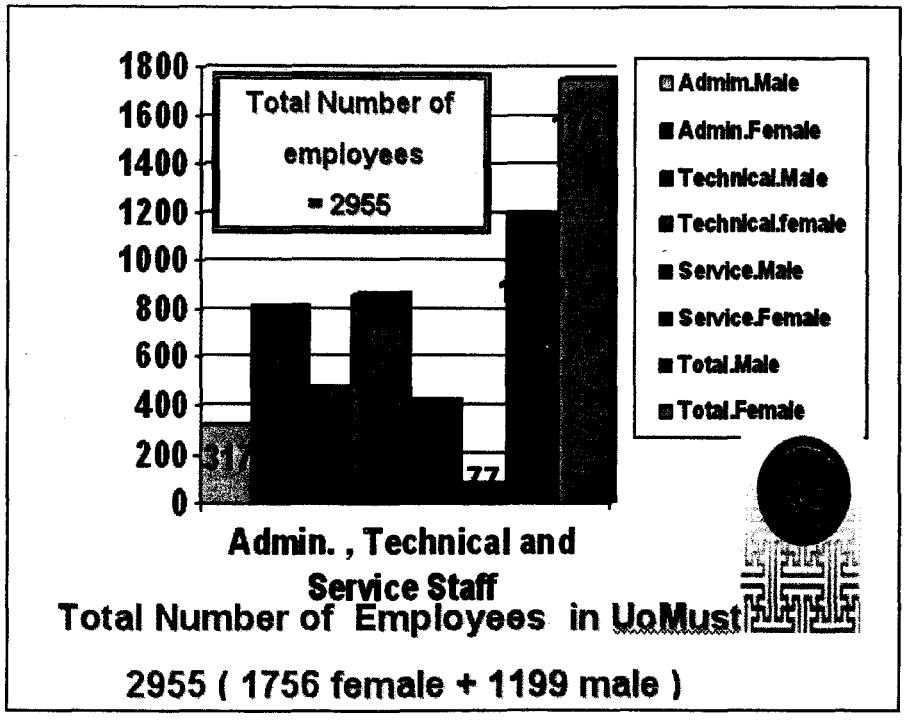


Figure.1.11: The UoMust Employees Distribution

UoMust suffers from the leakage in a number of the computers and peripherals, and it had only 2669 computers which it means about 18 students to one computer, which is for sure is the very low percentage beside that a college like Basic Education does not have only 52 computers in front of 8167 students as shown in Figure.1.12.

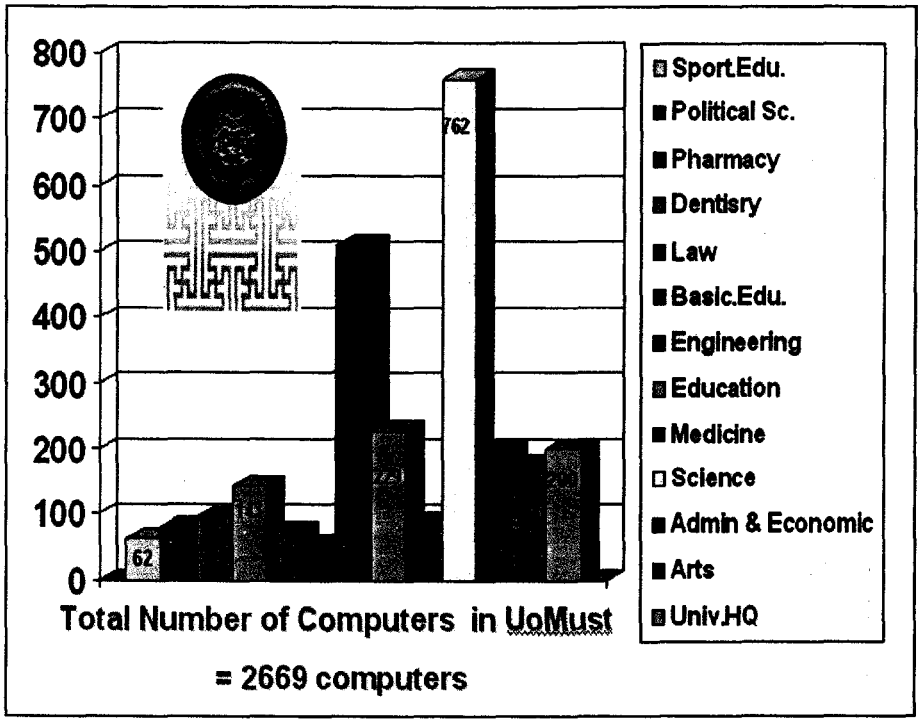


Figure.1.12: The UoMust Computers Distribution

1.5. E-LEARNING CONSTRAINTS IN IRAQ

The main constraints facing the establishing of e-learning projects in Iraq are financial, ethical & legal, technological, socio-cultural, human resource, institutional and planning contraints.

1.5.1. Financial Constraints

As a result of Iraq's wars and years of under siege, this country is evolving with frightening crazy speed. We can say that Iraq went back to the era of pre-industrial age because there are no electricity or communications lines.

At the end of April 2003, Iraq was only ruins of destroyed buildings. Most of the properties of the government departments and bodies like museums, universities, libraries, electrical stations, factories, even oil industry and refineries have been extensively stolen

1.5.7. Planning Constraints

Iraq is in real shortage for planners and designers whom can be made road maps for executing projects with the new international standards. Planning for projects in war conditions need highly experienced experts who know the conditions very well. One of the big mistakes of the Iraqis is that they rely on the UN & WB expertise to plan and design for them, yet most of those experts have not visited Iraq before. Planning for e-learning projects in Iraq is not a case of bringing computers and servers to Iraq this year, but it is a long term plan that needed a road map. It starts with policy reform and development, university developments and changing its old standards, install real infrastructures and reform or upgrade that on the ground. A road map plan for capacity building to adopt e-education is stated in Figure. 1.13. Figure 1.14 shows all e-learning Constraints in Iraq as stated.

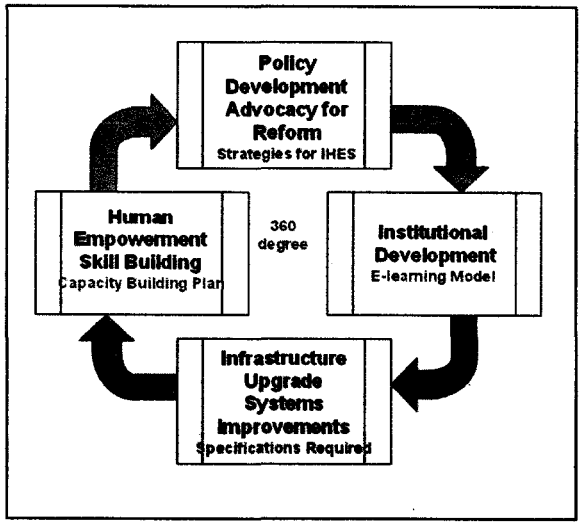


Figure.1.13: Road Map for Capacity Building

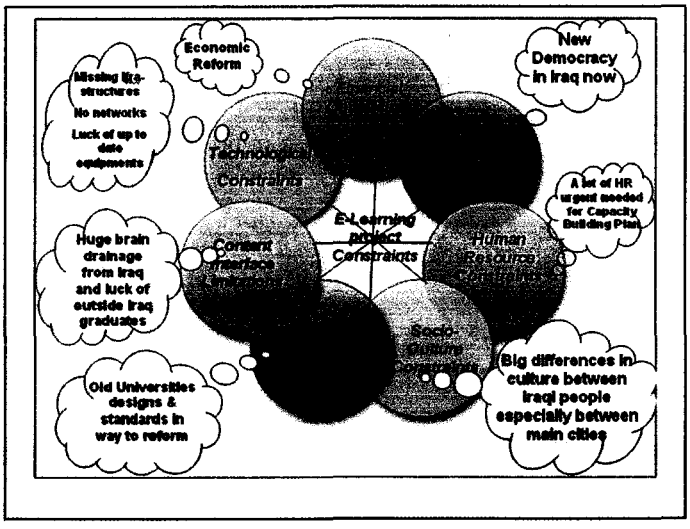


Figure.1.14: E-learning Constraints in Iraq

1.6. MALAYSİA AND EDUCATİONAL TECHNOLOGİES

Implementing e-learning project in UoMust will develop this damaged university in all the fields of learning and researches, restructured it again according to international universities standards, and institutionalize it according to institutionalization organization concepts.

UoMust has to start from where the others ends and not from their early beginnings, and it found that Malaysia with its society multi race, Islamic religion, language, and

historical friendships are a good base to start from it since Malaysia now is one of the most progressed and developed third world countries.

Malaysia is one the very sophisticated countries in the field of information and communication technology, and they ranked 28 between world countries (Inboden & Streeter, 2009) and its education system ranked 52, which is very good for a country from the third world which it gives us a very clear that the Malaysian government has been very proactive towards ICT development (Asirvatham et al., 2005) .

The definition of Malaysia as a fully developed country is: *"By the year 2020, Malaysia can be a united nation, with a confident Malaysian society, infused by strong moral and ethical values, living in a society that is democratic, liberal and tolerant, caring, economically just and equitable, progressive and prosperous, and in full possession of an economy that is competitive, dynamic, robust and resilient."* (Asirvatham, 2009; Hua, 2011) and the shortest way to achieve that is reforming its education system.

The national philosophy of education in Malaysia's state : "Education in Malaysia is on-going efforts towards further developing the potential of individuals in a holistic and integrated manner, to produce individuals, which are intellectually, spiritually, emotionally and physically balanced and harmonic, based on a firm belief in and devotion to God. Such an effort is designed to produce Malaysian citizens who are knowledgeable and competent, who possess high moral standards and who are responsible and capable of achieving a high level of personal well-being as well as being able to contribute to the harmony and betterment of the family, the society and the nation at large" . This journey with educational technologies starts in Malaysia in 1972 in pre e-learning in Ministry of Education, and they establish the national steering committee for e-learning in 2002, and now they are in the 9th Malaysia Plan (2006-2010), the plan that has highlighted building world-class human capital, which is one of the seven strategies for the development of Malaysia and the Malaysian Government set up the national 'Lifelong Learning Council and all public and private higher educational institutions establish one centre of life-long learning.