ECONOMIC AND SOCIAL COMMISSION FOR WESTERN ASIA (ESCWA)

NATIONAL PROFILE OF THE INFORMATION SOCIETY IN THE HASHEMITE KINGDOM OF JORDAN

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Some institutions are referred to in a variety of ways in the original Arabic and have therefore been translated in accordance with the context.

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ABBREVIATIONS

ADNS	Arab Domain Name System
ASYCUDA	Automated System for Customs Data
ICT	Information and Communication Technology
ICANN	Internet Corporation for Assigned Names and Numbers
MEDICOM	An information management system for the Healthcare establishments
NGO	Non-Governmental Organization
OSS	Open-Source Software
PPP	Private and Public Partnership
ccNSO	Country Code Names Supporting Organization
GAC	Government Advisory Committee
TRIPS	The Agreement on Trade Related Aspects of Intellectual Property Rights
REACH	Jordan's national strategy for developing the ICT sector
WIPO	World Intellectual Property Organization

Introduction

Jordan relies on a series of facts that are conducive to the establishment of an advanced Information Society on the international level. Human forces are a major and efficient factor in this field, as most of the population is under 20 and is characterized by its relative fearlessness in terms of the use of technological solutions in all aspects of life. Moreover, illiteracy in Jordan is lower than in the rest of the Arab world, which gives Jordan the chance to reduce the digital gap with other more advanced countries. Add to that the fact that young leadership believes that technological solutions can solve society's global development problems.

Jordan is rapidly expanding in some fields while dragging in others. But by and large, growth remains steady. There is a fast progress in education, computerization, e-government, in addition to a rapid spread of knowledge centers in remote areas, and the establishment of a legal environment sustaining this progress.

The country's powerful performance is linked to the transparency of public institutions and to easily applicable business-stimulating laws. Moreover, Jordan's economy is mostly open to foreign trade and participation. However, the macro-economy environment remains vulnerable, and business markets remain extremely tied while consumers and the business sector[1] do not use modern techniques, as the economy is narrow and continuously affected by political developments in the region.

In spite of all these positive factors sustaining Jordan's ICT progress, statistics pertaining to this sector provide contradicting indicators as the World Economic Forum's report underlines Jordan's regression in network efficiency and competitiveness. Last year, Jordan fell behind other Arab countries due to their rapid growth and their ability to invest in ICT.

Jordan and International Indicators of Information Society

According to the World Economic Forum, in 2006, Jordan's network readiness ranking dropped from 47 to 57; its competitiveness ranking fell from the 42nd position in 2005 to the 52nd in 2006. In 2005, Jordan ranked 51st in terms of creativeness and 53rd in terms of economic infrastructure.

The Arab World Competitiveness Report ranked Jordan 7th in the Arab region among 130 countries included in the World Economic Forum's report. Jordan ranked 54th among the 128 countries of the 2007 World International Competitiveness Report with 4.3 points over 10, compared to ranking 42nd among the 117 counties of the 2005-2006 report, with 4.4 points.

The new Arab World Competitiveness Report included 13 Arab Countries: Algeria, Bahrain, Egypt, Jordan, Kuwait, Libya, Mauritania, Morocco, Oman (evaluated for the first time), Qatar, Syria, Tunisia and UAE.

According to the report, countries are classified in three groups based on the level of development, which allows economic performance evaluation compared to other countries in the world.

In the 2007 Index, Jordan ranked 13th among the 40 countries of the second group with medium levels of development compared to 9th among 37 countries in the 2005-2006 World Competitiveness Report.

[1] World Economic Forum reports

I. THE ROLE OF THE GOVERNMENT AND ALL STAKEHOLDERS

The Jordanian government greatly supported ICT sectors by providing the necessary policies and strategies which led to the development of several initiatives. It also laid the foundation for a partnership with the private sector.

A. National information society policies and e-strategies

Jordan launched its strategy to transform the country into an information society in 1999. In 2000, INTAJ started the REACH initiative, which led to growth in the ICT sector in Jordan. However, the pace did not meet strategy requirements, and subsequent REACH reports provided for the amendment of the objectives so that they are more realistic[2].

This strategy underlines a work plan clarifying steps and measures necessary to maintain Jordan's position in the international knowledge-based economy. It also encourages the information society sector and its competitiveness in local, regional and international markets.

The implementation of the REACH recommendations which define the resulting economic activity stimulation, led to (a) the creation of 20,000 jobs in the ICT sector within supporting sectors; (b) 100 million dollars worth of exports; (c) 170 million dollars in FDIs (foreign direct investments) by 2004.

The national strategic plan for the development of ICT and postal sectors covered the period between 2004-2007 as it aimed at improving and providing electronic services at a reasonable cost, thus making them available to a larger number of users and working to increase the number of direct and indirect service providers in Jordan.

With respect to ICT, the plan aimed at "increasing the capacity, strength and activity of Jordan's ICT sector to reach the required volume, and then at sustaining competitiveness in regional and international markets, attracting investments, supporting the sector and increasing government and business efficiency."[3]

On the other hand, in 1996, the National Information Technology Center (NITC) conducted, with the support of the World Bank, a study aimed at setting national and strategic policies in the information sector after assessing the needs of public sector institutions. The center updated this study for the first time in 1998 then in 2001, after taking into consideration national developments, initiatives and efforts in this regard. The relevant strategy for 2007-2009 is now being finalized.

B. Public/Private Partnership (PPP) or Multi-Sector Partnership (MSP)

NGOs play a major role in building information society in the Kingdom. Case in point, the opening of the "Intel Computer Club" by the end of 2004. Created as part of an active partnership between the Jordanian Hashemite Fund for Human Development (JOHUD) represented by Queen Zein al-Sharaf Institute for Development and International Youth Organization, the Boston Science Museum, and Intel Corporation, the Club is an educational center offering ICT programs to all society strata, especially youth.

C. Role of Non-Governmental Organization

The 2000-2007 National Strategic Plan was responsible for the following progress aspects during the implementation period.

[2] The 2004-2007 National Strategic Plan

[3] Quoted from the 2004-2007 National Strategic Plan

Table 1. Progress Achieved by the National Strategic Plan

	2002	2005
Direct employment	8,000	16,000
Annual exports	USD 40 million	USD 162 million
Local revenues	USD 188 million	USD 580 million
Accumulated foreign investment	USD 68 million	USD 100 million

Source: 2005 Telecommunications Regulatory Commission Report

II. ICT INFRASTRUCTURE

A. INFRASTRUCTURE

The ICT infrastructure is rapidly expanding in Jordan: In 2006, the number of landlines reached 629,000, at an expansion rate of 11%; the number of mobile phone subscribers reached 3.826 million, at an expansion rate of 70%; and a fourth mobile phone company was licensed.

With respect to major Internet channels, international Internet lines capacity was increased to 620 Mb/s. The pillar of the communications network is an optical fiber loop with STM4 capacity. The number of Internet users reached 600,000 at an expansion rate of 10.7%, and the number of Internet cafes also increased.

The number of PCs reached 465,000 in Jordan, at an expansion rate of 8.3%. Telecommunications companies are striving to implement the "one computer per house" initiative by providing devices and services at competitive prices.

B. INVESTMENTS IN ICT INFRASTRUCTURE AND DEVELOPMENT OF NEW SERVICES

Table 2. Evolution of The Volume of Investments In The Telecommunications Sectors (2000-2005) (*in Millions*)

Service	2000	2001	2002	2003	2004	2005
Fixed communications services	55.7	90.1	38.2	11.4	10	12.3
Cellular and mobile radio telecommunication services	92.9	89.2	93.3	91.9	100.3	137
Internet service	4.3	5.5	3.5	1.5	0.7	5.6
Prepaid cards services	--	--	2.6	1.1	0.4	0.4
Automatic Call Distributor service	0.02	0.1	0.004	--	--	--
Total	152.92	184.9	137.604	105.9	111.4	155.3

Source: 2005 Telecommunications Regulatory Commission Report

IT investments also increased to reach USD 100 million in 2005.

C. ICT CONNECTIVITY

Given the wide integration between information and communication technologies, they are nowadays regarded as one technology providing a common service, which has affected Jordan, since the TRC is participating in the organization of the information technology sector. This is a natural consequence of development, and it requires parallel development on both levels to guarantee the maximum results expected from this important and broad sector. The development of communication technology is not enough if it is not coupled with similar growth in information technology and vice versa, as they complete one another in providing citizens wherever they may be with high-quality services and easy access.

Jordan is currently concentrating on solutions marrying communications and information technology such as SMS services, e-payment, and WAN (Wide Area Network) coverage.

III. ACCESS TO INFORMATION AND KNOWLEDGE

A. PUBLIC DOMAIN INFORMATION

Jordan has no legislations restricting citizens' access to information, with the exception of personal or security-related information.

B. ACCESS TO INFORMATION AND PUBLIC INFORMATION

The findings of the 2005 TRC report can be summarized as follows:

Table 3. Number of Subscribers In Licensed Communication Services For 2000-2005 (*in Thousands*)

Service	2000	2001	2002	2003	2004	2005
Fixed communications services	620	660	674	633	638	628
Cellular and mobile radio telecommunication services	389	866	1200	1325	1624	3138
Internet service	32	66	62	92	111	197

Source: 2005 Telecommunications Regulatory Commission Report

Table 4. Expansion Rate of Fixed Communications Services (2000-2005) (*as a percentage*)

Service	2000	2001	2002	2003	2004	2005
Fixed communications services	13	13.4	13.3	12	11.9	11.6
Cellular and mobile radio telecommunication services	8.1	15.5	24.1	25.5	30.3	57
Internet service	0.66	1.33	1.23	1.84	2.07	3.6

Source: 2005 Telecommunications Regulatory Commission Report[4]

In 2005, the number of Internet users reached 629,500. In 2006, domain registration exceeded 3,000 domains (World Fact Book), and telephone communication fees as well as the fees of all types of communication lines were reduced.

The number of computers in Jordan reached 450,000 in 2005. Different initiatives were adopted to increase computer use in Jordan.

[4] www.trc.gov.jo

C. MULTI-PURPOSE COMMUNITY PUBLIC ACCESS POINTS

1. *National Information System*[5]

It is a decentralized system involving all public and private institutions producing or gathering information. Information is divided into 17 groups to facilitate use[6]:

- Industry;
- Education and training;
- Geography;
- Political affairs;
- Research, Science and Technology;
- Law and Legislation;
- Natural resources;
- Agriculture;
- Environment;
- Economics and Finance;
- Culture;
- Population and Humans Settlements;
- Health;
- Labor;
- Society and Social Conditions;
- Transportation;
- Tourism and Antiquities

The National Information System relies on the Internet for the supply and exchange of information. This information, be it texts, data or photos, is accurate, global, modern and available to all without exception. It also covers all sectors.

2. *Jordanian Knowledge Stations*[7]

The Jordanian knowledge stations project was born from HM King Abdullah II's vision to transform Jordan into an information society that would give every Jordanian, especially in rural and remote areas, the chance to benefit from ICT, bridge the digital gap, develop skills and human resources, increase competitiveness and capacity to get employment in order to achieve economic and social development on the individual level as well as on the community level.

The Knowledge Stations initiative was launched in 2001 in preparation for the use of ICT applications in local communities, and to further citizens' use of e-government applications. The National Information Technology Center (NITC) was entrusted with the execution of the project and the determination of the best Knowledge Stations distribution in the kingdom.

3. *Objectives*

Jordan's Knowledge Stations aim at reaching the following major goals[8]:

[5] www.nis.jo

[6] Quoted from www.nis.jo

[7] www.ks.jo

[8] Quoted from www.ks.jo

- Bridging the digital divide or gap between the governorates and different regions in the Kingdom;
- Introducing ICT to the different localities in Jordan and encouraging the use of ICT in the daily lives of citizens;
- Alleviating IT illiteracy by providing ICT training;
- Encouraging the use of the National Information System to retrieve local information;
- Enhancing the use of the Internet for socio-economic development at the community level;
- Enhancing local community skills through ICT training;
- Enhancing competitiveness among citizens by increasing their ICT knowledge;
- Preparing the local communities to get involved in the e-government project.

4. *Educational Programs and Activities*

Knowledge Stations create social and development programs and activities and play a major role in servicing society and meeting the needs of different categories. This is due to several factors, including society's confidence and response to Knowledge Stations and the selection of social interest topics to be provided objectively, which attracts and encourages youth to participate in communal activities.

Some of the most important development programs for 2005-2006[9] carried out by Knowledge Stations include:

- Implementing development programs through the partnership with Microsoft Corp. and hosting agencies in the communities that address these communities' needs;
- Holding numerous seminars, workshops, and training courses that deal with human and economic development (seminar on leadership, collective participation, lecture on the importance of investment);
- Holding a series of training courses on home industries (making dairy products and raising honey bees);
- Holding numerous lectures and seminars dealing with family health and wellbeing;
- Holding numerous seminars and lectures on various social issues such as women's rights, children's rights, early marriage…).

5. *Services*

Knowledge Stations hold customized training seminars for all trainers and station visitors in order to reinforce ICT skills. Training also contributes to the development of rural society by providing assistance in ICT use, facilitating access to information, and reducing the digital gap between the rural and urban society. Training also encourages the practice of democracy, enhances professional skills, and increases NIS understanding and knowledge.

Knowledge Stations' activities are classified into specific categories, including ICT capacity building, development and awareness raising services, electronic education (in English); access to medical magazines and papers; and assistance to women.

[9] Quoted from www.ks.jo

Thanks to Knowledge Stations, citizens can have access to PCs, printers, the Internet, e-libraries, and can train on the seven samples of the ICDL as well as benefit from other specialized sessions.

Knowledge Stations enhance citizens' efficiency in governmental economic activities and different social topics, help them acquire skills in leadership, inspired development and innovation. Stations allow local communities to exchange information and share experiences with regards to different topics such as health, education and environment.

Table 5. Knowledge Stations Achievements

Year	Number of trainees	Male	Female
2000-2001	13829	44%	56%
2002	8626	43%	57%
2003	14045	43%	57%
2004	21280	46%	54%
2005	15207	48%	52%
2006	9463	45%	55%
Total	82450	45%	55%

Year	Number of training seminars		
2000-2006	8200		
Year	Number of operational knowledge stations		
2000-2006	132		
Year	Number of trainees	Number of service beneficiaries	Number of citizens benefiting from knowledge stations
2000-2006	82,450	84,000	166,450

D. USING DIFFERENT SOFTWARE MODELS

Jordan is currently seeking to provide public sector institutions with software, in compliance with the Intellectual Property Protection Law, starting with Microsoft products. Efforts are currently being made to provide Oracle software, and at a later stage all software used in the public sector.

E. FREE AND OPEN ACCESS TO SCIENTIFIC KNOWLEDGE

Jordanian citizens have free and open access to scientific knowledge; however there are incentives to support free access to such knowledge.

IV. ICT CAPACITY BUILDING

A. BASIC LITERACY

The ICT awareness program and training of civil servants started in 2004. The majority of civil servants were teachers, as provided for in the general plan for the use of information technology in classrooms. 132 Knowledge Stations were created as development centers for local communities by the end of 2006.

B. ICT IN EDUCATION AND TRAINING

The number of trainees reached 85,000 thanks to 8,200 training seminars. The Ministry of Higher Education joined the universities network, bringing the number of connected stations to 11, including 8 public universities, one center for universities and the Ministry of Higher Education. The strategy on the use of the network by Jordanian universities was finalized. The first stage of the school network, which includes 240 public schools in Amman, was also finalized. Fieldwork, cable installation and operational devices were also executed.

Fieldwork pertaining to stage 8 of the project and involving a network between 70 public schools was finalized in Al Aqaba. Operational devices output was transferred, and installation will be finalized for an expected launch in the first quarter of 2007.

More than 65,000 teachers from the Ministry of Education received computer and e-learning training. It is expected that, by the end of 2008, 75,000 teachers would have been trained, 45,000 would have obtained the international license, and 33,000 out of a total of 38,000 teachers would have been trained to use Intel software, 2,155 of which would have been trained to use the Thinking Tools program by using technology, and 1,570 would have been trained on the World Links program.

C. TRAINING PROGRAMMES FOR CAPACITY BUILDING IN THE USE OF ICT

In 2006, the Ministry of Education adopted the ICDL program to enhance computer literacy among teachers and civil servants. So far, 60,000 civil servants have taken part in the program, and more than half have obtained the license. The Ministry of Information and Communications Technology adopted the ICDL program to train its personnel on ICT skills via its e-government program.

D. RESEARCH AND DEVELOPMENT

Faculty members in Jordanian universities represent more than 80% of those working in scientific research in Jordan, which reflects the small participation of private enterprises and institutions in research and development, and their severed relation with university education bodies. University researchers suffer from several shortages and face many obstacles including[10]:

- Few full-time researchers in spite of a relevant University system;
- New PhD graduates are not given the opportunity to receive scientific research training and they are directly involved in the teaching operation;
- The individualistic tendency to conduct research and the lack of integrated research teams;
- The high students-to-faculty members ratio exceeds international standards;
- The number of faculty members busy with extra-curricular work;
- The limited number of Masters students trained on scientific research, which means they are hardly involved in scientific research projects supervised by their teachers as an active working force;
- Research assistants and technicians have limited opportunities to train in developed countries on handling and maintaining specialized equipment in research laboratories.

Consequently, the scientific research landscape in Jordan and the Arab countries is not in line with the available material and human capacities: obstacles must be overcome, education methods must be reviewed at all stages of education, a research-encouraging environment must be created, and Intellectual Property Laws must be enforced.

V. BUILDING CONFIDENCE AND SECURITY IN THE USE OF ICTS

A. USE OF ELECTRONIC TRANSACTIONS AND DOCUMENTS

Jordan is currently witnessing a rapid shift into the use of online transactions especially in the banking sector with respect to cash withdrawal, deposit, transfer, and balance checks. As for health, health insurance in the private sector is becoming electronic. Moreover, more than 60% of public sector institutions

[10] Quoted from “Arabic Scientific Research and the Requirements to Enhance It”, Imad Melhes

have electronic files to support their operations.

B. Online transaction security

Since online transactions involve sensitive and valuable information, public and private sector institutions are committed to preserving and protecting the sensitive information they acquire from intentional and non-intentional damage. These institutions provide sensor and logical security systems to guarantee that the information is strictly accessible by its rights-holders.

C. Countering misuse of ICTs

Jordan does not enforce any criminal systems pertaining to the use of ICT.

D. Privacy & Data protection

Private information is protected by virtue of Jordanian laws.

VI. ENABLING ENVIRONMENT

A. Legal and regulatory environment

After signing the WIPO agreement in 2004, joining the WTO and ratifying international trade agreements including the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS), Jordan enforced several legislations pertaining to different intellectual property topics.

Intellectual Property governs several legislations, pursuant to the Jordanian Legal System. Copyright law number 22 of 1992, its amendments of 1998, 1999 and 2001, and the relevant system number 4 of 1994 for the Classification of Goods and Services, govern the legal protection of literature and artistic work according to which computer programs and databases are protected. Laws governing literature and artistic property include: law number 8 of 1997 on monitoring audiovisual work, and system number 19 of 1998 on monitoring audiovisual work issued by virtue of this law. To complete intellectual property legislations pursuant to WTO membership requirements, Jordan passed law number 10 of year 2000 related to the protection of integrated circuit designs, thus extending protection rules in the Jordanian law to programs, information rules and integrated circles in IT work[11].

Since the beginning of 2005, the TRC has taken several measures to implement its program aimed at liberalizing the fixed communications sector, in order to reach the goals set in the government's 2003 general policy on ICT and the post.

The TRC also established a new regulatory licensing framework enabling licensees to offer several communications services including local and international audio communications services on the fixed line. The regulatory framework includes two types of licenses: the first is a class license and the second is an individual license, which is issued when the licensee needs to use rare resources such as frequency shadow, or public utilities and phone numbers from the national numbering plan.

One of the main reasons the TRC adopted the liberalization program was to try to find instant opportunities for the private sector in terms of innovation, investment, sound and fair use of available national assets, diversifying and developing communication services for citizens and varying the choices between such service providers.

[11]Quoted from the Arab Legal Network

In 2005, the former 24 class licensees started using the new form of class license, thus widening the scope and technological means of the services provided. A notice and public consultation paper on transferring non-class licensees to the new form was issued.

The TRC will continue to move the non-class licenses to the new individual licensing system within the integrated regulatory framework related to organization and licensing. Two relevant consultation papers were published and the transfer process is expected to be finalized before the end of 2006.

B. DOMAIN NAME MANAGEMENT

Domain names are registered under the ".jo" extension by the NITC, which is the only body assigned to do so in Jordan by the ICANN. The center strives to offer users the best services by applying methods developed by ICANN, providing a safe environment, committing to the best standards to protect names, appointing highly qualified and skilled employees, and meeting speed and perfection requirements at work.

The center's international registration policy is applied and amended when necessary to suit the Jordanian context. The registration unit is composed of the technical registrar, accountant and manager. The center is a member of the ICANN[12] affiliated international domain committees and its two affiliated committees: ccNSO[13] and GAC[14].

The center applies Jordanian laws on intellectual property, trademarks, protection of names on the Internet and avoids cyber squatting. The center also refers to Jordanian laws in times of conflict or disagreement, bearing in mind that the WIPO's Geneva-based office is responsible for solving conflicts by means of arbitration.

C. STANDARDIZATION IN ICT

The Jordan Institution of Standards and Metrology oversees standardization in Jordan. However, there are no Jordanian standards used in information technology but there are manuals and instructions governing parts of this technology. International standards are individually applied.

VII. ICT APPLICATIONS

Applications used in public sector institutions are mostly related to office automation and treatment of in-house procedures in addition to the information management system. The absence of other types of applications has a direct bearing on how beneficial these applications are in the different institutions. Therefore, providing training services in terms of applications will make these applications better suited to the needs of the institutions that use them.

A. E-GOVERNMENT

The e-government project will contribute to the transformation of the concept of applications necessary in governmental institutions. The NITC has just started managing the e-government operations center; and the government's gate is now official.

The third phase of the security network has begun, which 30 new institutions are expected to join, bringing the total number of institutions in the network to 48.

[12] Internet Corporation for Assigned Names and Numbers

[13] Country Code Names Supporting Organization

[14] Government Advisory Committee

B. E-BUSINESS

The one-stop shop institution is studying the possibility of using online shopping programs for all the institution's bids. Moreover, the Customs Department is currently implementing ASYCUDA software pertaining to customs procedures in compliance with relevant international standards. Also, the Chamber of Commerce uses online payment software even though traders rejected these services due to prevailing cultural dimensions[15].

C. E-LEARNING

1. *Jordan's Education Initiative*[16]

Born from the international and local cooperation with the participation of private and public sectors, this initiative aims at improving Jordan's level of education by using ICT services, establishing an ICT industrial capacity, and setting Jordan as an example for other countries to follow.

2. *The initiative's goals:*

- Improving the learning service offered to citizens through partnerships with the private sector;
- Freeing teachers' and students' invention ability by optimizing the use of technology;
- Setting Jordan as an example for other countries to follow.

3. *Project components:*

- First component: Developing and implementing new learning methods that would cover 100 leading schools in Amman, affecting 50,000 students and 2,300 teachers;
- Second component: Providing Jordanians with life-long learning opportunities;
- Developing the information technology industry.

E-learning has come a long way. Currently, all schools are computerized. 95% of schools have at least one computer laboratory, and some schools have 5 laboratories. In schools lacking a computer laboratory, the school administration was computerized and equipped with at least four devices. So far, 2,500 schools are connected to the computer learning network. Schools can receive electronic information from the ministry as well as baccalaureate exam results, as they did during last year's winter session.

Some schools have started implementing electronic curricula. The next phase will see the opening of a media e-learning room equipped with a whiteboard and a computer in every school. Later on, every classroom will be equipped with a computer, as part of the educational development project towards a knowledge-based economy.

D. E-HEALTH

A database and devices as well as software to control health insurance procedures for civil servants and their families have been created. Health insurance in the private sector offers automated health services to facilitate the implementation of citizens' health insurance agreements.

The Ministry of Health is currently developing the blood bank systems, and Jordan's Food and Drugs Institution has also computerized the largest part of its operations.

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[15] Database on scanning Information Technology potentials and capacities in public sector institutions.

[16] www.jei.jo

A health information gate was established for part of the national information system. Founding coordinators started implementing the MEDICOM system in 2004[17].

Remote medicine has been practiced for years in Jordan through tie-ins with several health institutions in the US such as Houston and the Mayo Clinic hospital[18].

Health services administration systems are also available in the Kingdom's major hospitals. However, they lack integration when it comes to linking patient databases and making them available to doctors irrespective of their work location.

E. E-EMPLOYMENT[19]

Recruitment companies abound in Jordan, thus ensuring a balance between supply and demand. Some use computer technology such as the Al-Manar Project and the PETE Project. Technicians have also been known to use international computer applications.

Based at the National Center for Human Resources Development and financed by the Canadian government, the Al-Manar Project is in charge of building human resources data storages, as well as collecting, screening, programming, storing, publishing, and sustaining the use of information through studies and research, and using it as the base for HR decisions and policies.

The Department of Statistics (DoS) provides Al-Manar with detailed quarterly data on the identity, skills and qualifications of the employed and unemployed in the Jordanian market. Moreover, an employment study conducted by the Department of Statistics provides it with annual information. The project maintains a database on the employed registered at the Civil Service Bureau and the Social Security Corporation.

Al-Manar is spearheading a national effort to provide experience and skills in career counseling in Jordanian schools and universities as well as in the labor market. It strives to guide students when it comes to choosing specializations that meet their aspirations and skills, raise awareness on the nature and novelties of the labor market, and link education with the labor market.

Al-Manar has created, in collaboration with the Ministry of Higher Education and the Vocational Training Corporation, a national education database, the first phase of which was implemented and included academic data on higher education students and Jordanian university graduates divided by faculty and specialization. The Vocational Training Corporation currently provides information on trainees and graduates. In the future, the database will include basic and secondary education. The project has also started building educational indicators as it published the first guide to vocational and technical education in Jordan. Higher education indicators will be published soon.

Al-Manar strives to increase and improve operation services in the Jordanian market, for which it has developed an electronic internet-based operation system that is open to job seekers around the clock and allows them to submit their applications. It also gives employers the chance to announce available vacancies free of charge.

[17] http://www.medlabs.com.jo/overview.asp

[18] http://www.mayoclinicproceedings.com/inside.asp?AID=781&UID

[19] www.almanar.jo

VIII. CULTURAL DIVERSITY AND IDENTITY, LINGUISTIC DIVERSITY AND LOCAL CONTENT

A. USE OF ICT IN SUPPORT OF CULTURAL AND LINGUISTIC DIVERSITY

Most websites in Jordan are in Arabic and English. They also contain links to sites providing information in these two languages, which reinforces cultural and linguistic diversity for users.

B. LOCAL AND NATIONAL DIGITAL CONTENT DEVELOPMENT

Efforts aimed at sustaining the Arab Digital Content are still in their infancy; efforts in the Kingdom are limited to the Arab Content published on the Internet. The majority of daily newspapers as well as international newspapers are available on the Internet, which reinforces the Arab Digital Content industry. Moreover, most websites developed in Jordan are mainly based on Arab Content, with the occasional addition of a foreign language version[20].

C. ARABIC DOMAIN NAME SYSTEM – ADNS

Much like the rest of Arab countries, Jordan does not boast any Arabic domain names.

IX. MEDIA

A. MEDIA INDEPENDENCE AND PLURALISM

Compared to several countries in the region, the media is relatively more independent and is characterized by political, cultural and social diversity.

Jordan boasts written and audiovisual media outlets. Written media is highly independent, whereas the audiovisual media is primarily official - despite the existence of private media outlets.

B. THE MEDIA AND ITS ROLE IN THE INFORMATION SOCIETY

The spread and access to all types of media platforms via the Internet or satellites represented serious competition for the media in Jordan, which was forced to develop mechanisms to reach citizens, and use modern techniques along with foreign media platforms to preserve customs and traditions.

When they're not at work, Jordanians spend most of their time watching TV or listening to the radio. Many citizens read newspapers and magazines regularly.

This expansion turned the media into society's top priority. The role of the media in the information society is currently limited to providing news, social and cultural information and there is very little interest in developing an information society. In other words, the media offers very little benefit in this field.

X. INTERNATIONAL AND REGIONAL COOPERATION

A. FINANCING OF ICT NETWORKS AND SERVICES

Jordan is cooperating with international and regional bodies to provide the necessary funding for the establishment of networks and development of ICT services:

[20] Draft report of the expert group meeting on reinforcing Arab Content, Beirut, July, 3-5 2003.

Table 6. Projects Funded By International and Regional Bodies

Financing	Type of cooperation	Project Nature	Project Name
UNIFEM	Regional	Infrastructure	The e-Village Project
Intel	International	Infrastructure	Intel International Science and Engineering Fair (ISEF)
Intel	International	Networks	Intel Teach to the Future
Intel	International	Infrastructure	Intel Computer Clubhouse
Unico-University Company	International	Networks	University Broadband Network Utilization
Multi-finance	International	Infrastructure	Jordan e-Government
UNIFEM	International	Human resources	Jordan's Digital Inventory of Culture & Heritage-JaDIR
British Embassy/Amman	International	Human resources	Get Connected UK/Jordan IT Initiative
The Royal Government of the Netherlands	International	Human resources	Arab Women Connect (AWC)
USAID	International	Information	Jordan Health Web Portal

Source: World Links[21]

As the Arab subsidiary of World Links, World Links Arab Region (WLAR) strives to improve educational outcomes, economic opportunities and mutual global understanding for youth in Arab countries through the use of technology and the Internet. Teachers learn to integrate participatory learning techniques and technology into the classroom for improved educational results, which allows youth to successfully participate in the global knowledge-based economy after graduating from school.

Several international and local entities funded projects in Jordan. Financing was merged with WB funding and in-kind assistance was added to the TAGO assistance. The Ministry of Education as well as the Jordan Education Initiative are the primary partners in this field.

The pilot project started in Jordan in 2003 when the joint memorandum of understanding was signed. In 2004, upon the completion of the four training stages, 55 trainers were trained and they in turn trained 560 teachers from 150 schools. 100,000 students are expected to benefit from World Links services over 5 years.

The success of World Links resulted in the demand for the expansion of the project's services to reach the national level as it was decided that 600 trainers would be trained to in turn train 6,000 teachers from 500 schools. Over five years 1,200,000 students would have benefited from the project.

To apply international education standards in ICT, World Links plans to start training participants in order to award them an ICT literacy certificate. At present, the program is under expansion, especially regarding the team in Jordan and the infrastructure.

MEPI Initiative[22]

This initiative is considered the beginning of efforts to sustain the democratic transformation in the region. A fundamental part of the American policy in the region, it contains four major axes:

- Policy;
- Economy;

[21] www.wlar.org

[22] Mepi.state.gov

- Education;
- Women's empowerment and support.

Jordan participated in and benefited from all four axes in the following manner:

- **Policy**
  - Project on reinforcing the society's role in democratic transformation in the Arab World;

- **Economy**
  - Project on training Arab citizens in America
    - Holding ICT seminars
    - Holding business development courses
    - Holding a business women conference for more than 200 women in the region
    - Establishing a business women network in 8 countries from the region
  - Legal and Business Internship Program[23]
  - Financial and operational restructuring program in Jordan

- **Education**
  - Jordan Education Initiative
  - Initiative supporting the private educational sector

- **Women's empowerment**
  - Supporting efforts sustaining women rights
  - Arab Women's Legal network

- **Women's economic empowerment**

XI. MILLENNIUM DEVELOPMENT GOALS – MDG

A. PROGRESS TOWARD ACHIEVING THE MDG

The evaluation of indicators in the 2004 national MDGs report reveals that the implementation prospects are disparate and can be summarized as follows.

Table 7. Prospects of MDGs

Prospect	Goal
Strong prospect	• Promoting Gender Equality • Achieving Universal Primary Education
Average prospect	• Ensuring Environmental Sustainability • Eradicating Extreme Hunger and Poverty • Reducing Child Mortality • Improving Maternal Health • Combating HIV/AIDS, Malaria

[23] www.mepi.state.gov/62066.htm

B. USE OF ICT FOR ACHIEVING THE MDGS[24]

IT progress will allow Jordan to reach the announced goals. Work will flow smoothly thanks to ICT and open education markets will be more beneficial as a result of the communications revolution. To realize MDGs, IT is best used by linking Jordanian hosptials to American hospitals, thus allowing Jordanian doctors to use technology and benefit from the world's expertise in medicine, and eventually decreasing child mortality. Moreover, as information becomes available to all by means of ICT, information on reproductive health and the fight against AIDS will improve.

C. ICT FIELD PROJECTS AIMING AT ACHIEVING MDGS

There are several field projects contributing to the achievement of MDGs:

- The Ministry of Social Development (MOSD) and UNICEF are signing annual work plans to sustain annual early childhood work plans and protection projects implemented with the help of UNICEF, and with JD 461,000 worth of subsidies;
- POGAR which aims at reinforcing the role of women in the local community;
- The national agenda which overlaps with most MDGs;
- Knowledge Stations;
- Save the Children projects[25].

XII. WORLD SUMMIT ON THE INFORMATION SOCIETY - WSIS

A. FOLLOW-UP AND EVALUATION

Jordan has improved its intellectual property and privacy protection laws and regulations and is preparing for the adoption of legislations on transactions and electronic signature. It also addressed the regulatory communications framework, Internet organization, security and privacy laws and their rules of application as well as other ICT laws and rules. Jordan uses the most advanced technology pertaining to mobile phones; it was the first country to launch an MMS service in the Middle East and the second to launch a GPRS service. Internet is expanding and people's ability to access technological information is increasing thanks to Jordan's social IT centers.

With respect to capacity building in ICT, Jordan is training all civil servants to get the ICDL.

With respect to building the ICT sector, Jordan is implementing a project on improving productivity by allowing rural communities to participate in income-generating and self-sustainable industries.

The government introduced new amendments to the Investment Promotion Law, which came into effect in 2001.

Applications taking place in public institutions, such as the computerization of public administration via IT gardens, digitization of information thanks to e-government plans, and electronic access applications through a national fund that offers a nuclear capital to companies, are all indicators of progress. There are also applications in education such as e-learning, which is a strategy to use technology in order to improve the learning process and ensure interactive access to distance learning topics. Jordan has developed a global e-learning strategy with technical assistance provided by the Canadian International Development Agency. This strategy includes equipping all schools with computers at the rate of one computer for every 10

[24] *Source*: Oman Digital Society report 2007, p31

[25] www.savethechildren.org

students, and connecting schools to the Internet via fast communication channels. It also aims at improving education curricula by using ICT as a tool to transfer information, and providing teachers with the necessary technical and educational skills for using technology to improve education and learning in classrooms.

With respect to trade and business applications, Jordan is working towards publishing electronic trade and business applications and providing high-quality electronic exchange. With respect to health care applications, private sector companies have developed an electronic gate for health care services, particularly health insurance services. The government is currently trying to develop a national database for all services related to healthcare, medication and physicians.

B. SUCCESS STORIES

Knowledge Stations are the most important success story in this field given their large influence on the local community and their contribution to service continuity.

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