

Chapter 1

A Perspective on ICT Diffusion in the Arab Region

Salam Abdallah
Abu Dhabi University, UAE

Fayez Ahmad Albadri
ADMO-OPCO, UAE

ABSTRACT

Interest in the Information and Communication Technology (ICT) in the Arab world has started to take different strides for many reasons. This growing endorsement of ICT is primarily attributed to economic and social development factors, and is driven by the aim to transform Arab society to a knowledge based society. Such an endeavor could be successfully achieved only through effective creation, adoption and innovation of the technology. This chapter examines the extant literature on ICT in the Arab world in order to glean the level of ICT investment and acceptance, and to attempt to understand the interplay of cultural practices and values on the successful implementations of ICT initiatives. The Arab countries are undergoing major development that is expected to culminate in tangible growth in many areas, attract the attention and interest of both businesses and researchers. This chapter also sets the scene and lays the foundation for the ICT discussions and investigations in the rest of the chapters of the textbook.

INTRODUCTION

The development, dissemination and management of information and knowledge determine the way forward to build an information society, as an enabler for sustainable economic development. Defining the main features of information society, ESCWA (2009) characterizes an information society as “a society that processes information

efficiently in its socio-economic development, including the production, exchange, adaptation and use of information for the purpose of development and the enhancement of the quality of life and work environment for all citizens. In order to realize the information society, information and communications technologies (ICTs) need to be used. While ICTs are necessary, they are not sufficient, given that capacity-building must equally be enhanced in knowledge-related areas covering economic, social, legal, educational

DOI: 10.4018/978-1-60960-048-8.ch001

and research.” (p. 1). This successful realization of this endeavor is only possible to achieve through a careful consideration of factors that can enhance adoption and innovation of technology and its creation.

For the above reasons, the increasing interest in ICT in the Arab world has compelled various sectors to take different strides primarily for economic and social development with the aim of becoming a knowledge based society. ICT can provide developing countries an opportunity to ‘leapfrog’ over the industrial stages of development, and to catch up with more developed economies (Murphy, 2006). However, this aim faces many challenges. In the Arab region the process of ICT transfer and adoption is considered low and its infiltration into its societies is hindered due to challenges in IT transfer (Straub et al., 2001). Technology transfer may be defined as a dynamic process, where there is a technology movement from one physical or geographic allocation to another. This process involves acquisition, adaptation, utilization and development (Straub et al., 2001). Rosalind (1985) has argued that technology transfer also include issues such as decision making procedures; software development methodologies planning and organization of the information resource, training and so on. Deep insights into the area of ICT technology transfer, adoption and diffusion in the Arab world is limited due to scarcity in research examining the different perspectives in different contexts.

Like most other developing countries, the Arab region has its own share of ICT project failures. Heeks (2002) argues that ICT project failures in the developing countries is higher than developed countries, possibly due to lack of technical and human infrastructure. Heeks (2000) also highlights that most studies on ICT projects do not provide reasons for the causes of failure, and they fail to take into consideration multiple dimensions. For example using Leavitt’s (1965) model of organizational change can be a useful framework to assess the interplay between multiple dimensions

(people, processes, structures and technology), where he suggest that these dimensions need to be aligned to effectively bring about change introduced by the four dimensions.

Our aim in this chapter is to examine the extant literature on ICT in the Arab world in order to glean and understand the level of ICT investment, acceptance and the interaction of cultural practices and values and to set direction for ongoing research in this developing region. Examples from countries will be given to illustrate how they have attempted to benefit from ICT. The chapter also provides a useful reference to the rest of the chapters in this textbook.

ICT IN THE ARAB REGION

The Arab world accounts for 5% of the world’s population 2% of the world GDP, which is considered a relatively high number by international standards. So poverty as the main barrier for the digital divide would not be the main reason for the gap. The United Nations Economic and Social Commission for Western Asia (UN-ESCWA), promotes economic and social development of Western Asia through different drivers, and ICT is one of the prime drivers to assist Arab countries in their transformation toward knowledge-based society and global competitiveness in the market. ESCWA as commonly known had developed a set of indicators to assist developing countries to measure the use of ICT and to assist them in formulating policies and ICT-enabled growth strategies and for enhancing social inclusion and cohesion. The indicators are also used for monitoring and evaluating the impact of ICTs on economic and social developments (ESCWA, 2009). These proposed indicators are related to (i) ICT infrastructure and access (ii) access to, and use of, ICT by households and individuals (iii) use of ICT by businesses and (iv) ICT sector and trade in ICT goods. The objective of these indicators is to assist countries who are developing ICT

13 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

www.igi-global.com/chapter/perspective-ict-diffusion-arab-region/48326

Related Content

The Evolution of Women Entrepreneurs

Jovanna Nathalie Cervantes-Guzmán (2021). *Journal of Technological Advancements* (pp. 1-19).

www.irma-international.org/article/the-evolution-of-women-entrepreneurs/291516

Impact of the COVID-19 on Higher Education: An Experience-Based Approach

Francisco José García-Peñalvo, Alfredo Corell, Ricardo Rivero-Ortega, María J. Rodríguez-Conde and Nicolás Rodríguez-García (2021). *Information Technology Trends for a Global and Interdisciplinary Research Community* (pp. 1-18).

www.irma-international.org/chapter/impact-of-the-covid-19-on-higher-education/269996

AR Using NUI Based Physical Therapy Rehabilitation Framework with Mobile Decision Support System: A Global Solution for Remote Assistance

Syed Ali Fathima S. J. and Shankar S. (2018). *Journal of Global Information Management* (pp. 36-51).

www.irma-international.org/article/ar-using-nui-based-physical-therapy-rehabilitation-framework-with-mobile-decision-support-system/210194

Factors Affecting Usage of Information Technology in Support of Knowledge Sharing: A Multiple Case Study of Service Organizations in Hong Kong

Ngai-Keung Chow (2013). *Global Diffusion and Adoption of Technologies for Knowledge and Information Sharing* (pp. 129-151).

www.irma-international.org/chapter/factors-affecting-usage-information-technology/72185

Adolescent Cyberbullying: A Worldwide Concern

Jun Sung Hong, Raúl Navarro and Michelle F. Wright (2025). *Encyclopedia of Information Science and Technology, Sixth Edition* (pp. 1-22).

www.irma-international.org/chapter/adolescent-cyberbullying/318459