# An Analysis of ICT Integration within the Jordanian Education System

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Doctor of Philosophy

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### **Certificate Of Authorship/Originality**

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirements for a degree except as fully acknowledged within the text.

I also certify that this thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

Signature of Candidate

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#### **Abstract**

This thesis explores the integration of Information and Communication Technology (ICT) within the educational system of Jordan. Educational systems worldwide are vigorously pursuing the integration of ICT as a means of staying abreast of the rapid technological changes associated with the knowledge-based economy, and the Jordanian education system is no exception, leading it to introduce several national initiatives in recent years.

There has been considerable research undertaken into the impact of ICT upon society and upon educational systems, but such studies have been generally confined to Western contexts. In the Middle East and North Africa (MENA) region, including Jordan, the little research which exists has been conducted for the most part by Western experts or international organisations.

Moreover, in spite of massive spending on education by governments of the MENA region, there have been warnings of a serious and widening gap between current schooling outcomes and the skills required for effective participation in globalised workplaces. Therefore, the Jordanian education system has implemented two national projects, *Education Reform for the Knowledge Economy* (ERfKE), and the *Jordan Education Initiative* (JEI), which aim to equip the system and students with skills and knowledge to participate effectively in the new era.

In examining the ways in which ICT integration has been planned and implemented in Jordan, the study investigated the roles of all three levels of the Jordanian education system: the central Ministry of Education, the regional directorates, and schools themselves.

Research data were gathered using a mixed method approach, which combined the use of questionnaires and case studies. The study was conducted in two phases: in Phase1, two standard questionnaires were distributed to 120 teachers and 12 principals from the three regions of Jordan: North, Central, and South. Phase2 comprised two case studies involving two schools which were found to have optimal conditions for ICT

integration compared with other schools in Jordan. The investigation in Phase2 included interviews, observations, site visits, and document analysis.

The study identifies and explores three issues which are fundamental to the integration of ICT in the Jordanian education system. These are first, the geo-political location of Jordan in the Middle East, and the impact that turbulence in the region has upon education systems; second, the economic constraints experienced by Jordan as a developing country, which necessitate collaboration with private sector and international parties, and third, the internal and external complexity of factors which surround ICT integration initiatives.

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#### List of abbreviations

DCU: Development and Coordination Unit

ECDL: European Computer Driving License

ERfKE: Education Reform for the Knowledge Economy

GDP: Gross Domestic Product

GNP: Gross National Product

HRDSIL: Human Resource Development Sector Investment Loan

ICDL: International Computer Driving License.

iEARN: International Education and Resource Network

ICT: Information and Communication Technology.

JEI: Jordan Education Initiative

MENA: Middle East and North Africa region

QRC: Queen Rania Centre

UNDP: United Nations Development Programme

UNESCO: United Nations Educational, Scientific, and Cultural Organization

USAID: U.S. Agency for International Development