Preface

Technology is essential for access to learning and development of a knowledge society. Imagine the two unique scenarios, wherein a learner in the far flung remote area of East African country of Uganda has access to technology enabled learning environment and in Denmark, technology being used for inclusion of children with special needs in the normal classrooms. Can we have collaborative strategies amongst the institutions to have interactive learning environment for the learners? How educational institutions in the developing and developed world are adaptable to innovations in technological environments through transnational collaboration for access to learning? How can we adopt the novel technologies and learn from the experiences of others so as to make customatized learning environment for our learners? The idea behind this book is to put forth international case studies to fetch answers for the above stated questions.

This book provides a comparative and comprehensive analysis of technologically enabled educational environments and various issues concerning education and collaborations across the world besides focusing on best practices and experiences from a varied range of countries. It showcases 19 case studies on the broad theme of Interactive technology environments and Transnational collaboration from Australia, Botswana, Brazil, Canada, Cyprus, Denmark, Hong Kong (People’s Republic of China), Israel, Italy, Malaysia, Niger, Norway, Samoa, South Africa, Spain, Uganda and USA.

The readers will find an interesting account of collaborative efforts using technology enhanced learning environment for mining education, e-business management for Mediterranean countries, and initiatives of e-learning in Sub-Saharan Africa, East African countries, Samoa and Niger. Innovative approaches to use interactive learning environment are presented in cases of personality and online learning and young children with reading and writing difficulties.

How technology can effectively be used for training and development of teachers? This yet another vital issue has been discussed in the case studies of learning style and institutional barriers, ecologies of learning, teachers learning with wiki and web based performance assessment. Challenges for developing an information society, student retention in online learning environments, framework for analyzing Teaching-Learning Objects (T-LO), and blended approach for parent trainers training course on Mathematics and Science are some of the cases, which highlight the importance of technology integrated blended learning approach for addressing social and intellectual dimensions in knowledge society.

The first chapter of the book by Robson Marinho of Andrews University discusses the core issue of faculty development in the instructional technology and deliberates upon faculty’s learning experiences and struggles they do in learning the instructional technology. This case in a very interesting manner addresses the core concerns of the influences that learning style and personal experiences have on faculty’s learning experiences and also highlights the institutional barriers affecting the faculty members in dealing with instructional technology. While focusing on participant’s personal approach and learning styles, it brings to light one dominant learning characteristic of each of the participant, compares it with
the participant’s result in the Index of Learning Styles Questionnaire and its potential implications for academic administrators in promoting the use of instructional technology by the faculty members.

The chapter “International Collaboration in Distance Education in Sub-Saharan Africa: Trends, Trials and Tomorrow’s Thrusts” focuses on international collaboration initiatives undertaken in Sub-Saharan Africa (SSA) for utilizing technology in distance education. While highlighting a number of important collaborative endeavours, the authors Gbolagade Adekanmbi and Bopelo Boitshwarelo have observed a similar goal of pooling together ICT resources and know-how for the improvement of educational outcomes. They consider the African Virtual University (AVU) consortium as a viable approach to collaboration which has yielded significant results. The paper also brings to the fore various vital challenges facing technology-focused collaboration in the SSA and presents suggestions for bringing socio-institutional change in the African countries.

The third chapter by Karin Tweddell Levinsen titled “Effective use of ICT for Inclusive Learning of Young Children with Reading and Writing Difficulties” presents a case of Danish IT Folder Project (PIF), which is a research-based iterative intervention involving two primary schools and the local Pedagogic Development Centre (PDC) in the municipality, aiming at inclusion of young children with potential reading and writing difficulties in normal classes. The case presents initial results of the project on the quality of the children’s inclusion process and the modifications of the screening tests, organizational changes in the municipality and the local schools due to these results.

The next chapter by Don Krug and Jenny Arntzen discusses the research that aimed to investigate the formation of ICT ecologies of learning in a teacher education program in Canada. The authors strongly believe the growth and development of ICT in Canada has placed tremendous responsibility on educators to be informed about not only acquiring ICT literacies but, more importantly, to understand the consequences of emerging social, technological, economic, and political ICT issues that hinder and/or enhance student learning, health, and knowledge. This research project critically analyzes the Canadian educational contexts and deliberates on the procedure used for preparing those individuals who are entering the teacher profession in using ICT and also elucidates how a group of eight teacher candidate researchers (TCRs) engaged in efficacious learning.

In the fifth chapter, Trish Andrews of University of Queensland, Australia, discusses about a technology based collaborative approach used in a consortium of four mining schools in Australia, to develop and deliver a common curriculum for mining engineering education. The case further elucidates the challenges in the collaborative project and use of open source technologies to overcome these challenges towards an effective collaborative teaching and learning activities in this trans-national program.

This case study explores the development of E-Learning in Niger and attempts to identify the opportunities and challenges that traditional universities like University Abdou Moumouni faces in the pursuit of introducing online and distance learning as a new mode of course delivery in the higher education. The author Aissetou Drame Yaye believes that even though there are enormous challenges for these institutions but political and institutional support can re-vitalize and enrich the perspectives and help in transforming the opportunities into realities.

In the seventh chapter on Personality and Online Learning, Kevin Downing illustrates a comparative evaluation of two pilot online courses with their traditionally taught counterparts in one of the universities of Hong Kong. The case compares the students of both the different sets of programs and their satisfaction measures were taken from participants in both modes of delivery and then compared with student learning style. While highlighting impact of blended learning approach to an undergraduate programme, the findings of the case suggests change in the behavioural pattern of Asian students from Introverts to online Extraverts when given the opportunity to reflect on what they have learned and contribute to an online discussion forum.
Yael Poyas of Haifa University, Israel in the subsequent chapter discusses the influence of the Wiki environment on multicultural group of teachers - young and old, experienced and novices, Jews and Arabs, who were participating in teacher education programs. The outcome of the study suggests three main factors influencing the learning process and participants' attitude toward the use of Wiki i.e. Level of professional development and teaching experience, Culture and mother-tongue of the participants, and the Discord between academic norms and the Wiki environment's democratic norms.

The authors Xavier M. Triadó Ivern, Pilar Aparicio Chueca, Natalia Jaria Chacón and Amal Elasri Ejjaberi in this case study have presented the affect of audio-visual case methodology for teaching Business in virtual mode. They have also attempted to study the influence of using such a method for better understanding of the theoretical concepts by the students.

“SMASH: Blended Training for Parent Education in Mathematics and Science” by Maria Meletiou Mavrotheris and Efstathios Mavrotheris is based on the EU-funded project SMASH that provides an innovative intercultural parent-trainer training course and related resources for professionals involved in parent education initiatives with the objective of raising the educational standards of European youth in mathematics and science. This training course is provided in a blended mode i.e. by the combination of use of e-learning and physical meetings. The course equips the trainers with knowledge, techniques, and implementation tools for high-quality, culturally differentiated training in mathematics and science education required for educating the parents of elementary and middle school children (ages 6-15) in their communities.

The next case study on experiences, issues and challenges of introducing technology enabled educational initiatives in the Pacific Ocean island of Samoa by Ioana T. Chan Mow, presents an overview of the prevailing status of technology based learning in this island nation for education and development opportunities. While concentrating on solutions and recommendations for future strategies, the chapter also examines various international partnerships and collaborations advanced by a leading university and the Ministry of Education, Sports and Culture of Samoa for improving the access to education.

Hanne Mawhinney, the author of the next case study, feels that less scholarly attention has been paid to the institutional effects of the technology enhanced performance assessment evidentiary demands on university programs undergoing review by national accrediting bodies. She addresses this issue in this chapter, wherein she examines the institutional dynamics of accreditation review experienced by faculty in a department offering graduate programs for educational leadership.

In the thirteenth chapter, Carolyn Stevenson discusses the issue of retention of students in online learning environments. The author opines that a collaborative effort of instructors, administrators, and students is needed to promote student success. In the study, she also stresses on the need for fostering relationships in the community that is critical for academic success and student retention. The case makes an attempt to discuss strategies for retaining and motivating online students.

The chapter “Challenges in Aligning Pedagogical Practices and Pupils Competencies with Demands of the Information Society: The Case of Norway” by Hans Christian Arnseth and Ove Edvard Hatlevik try to determine the reasons behind the difficulty faced while changing the educational practices that makes it suited for providing the capabilities required for an information society and global economy. The authors, while providing an insight into the complexities involved in changing institutional practices, taking the instance of Norway as a case here, argue that new technologies must be cultivated over a period of time for innovative, productive and active learning and teaching.

The next chapter by Wael Assaf, Gianluca Elia, Ayham Fayyoumi, and Cesare Taurino discusses collaborative learning experiences in teaching of e-Business Management, aiming to create e-Business Capabilities through blended learning approach in Mediterranean Countries. The case elucidates the pedagogical approach “Learning-in-Action” together with some considerations on the effectiveness and
the implications of the Problem-Based Learning (PBL) strategy in the program. It also ponders on the important role of this collaborative academic program in generating intellectual capital assets, Social Capital and Structural Capital.

In the sixteenth chapter, Ingrid Kleist Clark Nunes and Elena Maria Mallmann discuss how Teaching-Learning Objects (T-LO) are potentially meaningful in answering the principles of autonomy, interaction, interactivity, motivation and cooperation in hypermediatic didactic materials. The authors elaborate on the contribution of a framework (The T-LO List), which is used to analyze the T-LO developed, implemented, and evaluated in the specific context of a didactic module elaboration. The case concludes with the finding that it is important to realize that the usage of a framework to analyze the T-LO can orient theoretical methodological steps of planning, developing, implementing, observing, reflecting, and re-planning, all carried out by multidisciplinary teams.

The paper authored by Aida Suraya, Zaidan Abdul Wahab and Hamidah Meseran traces on the experiences of Universiti Putra Malaysia in using a Learning Management System from early 1990s and how it has evolved over the years, thus augmenting the culture of ICT supported teaching and learning. Through the case, it is evident that there has been a practice of each faculty deciding on its own platform for implementing e-Learning which resulted into the emergence of various LMSs. This gave rise to multiple difficulties hence a strategy was formulated to initiate and implement a single LMS for the University.

Gerda Van Wyk and Arno Louw through the paper, have attempted to present the findings of a comparative study between two different computer reading programmes, aimed at compiling a minimum set of requirements for such a programme in a developing country. They also identify the challenges, merits and demerits of implementing technology assisted reading on a larger magnitude. The paper here also suggests technology assisted measures for alleviating the reading difficulties.

The final chapter of the volume is a case study by Walimbwa Michael of Makerere University, Uganda, which attempts to evaluate the initial phase of e-learning, the importance of a rightful attitude, context, and instructional design in digital learning environments in three universities of the East African region. The case presents a crisis solving approach for stimulating a creative context for the meaningful introduction of e-learning and its impact on motivating institutions to integrate e-learning further. The findings of the study suggest that introduction of e-learning environment should be accompanied by an attitudinal change and empowering users with an authentic approach with less technological complexity. He also believes that review of curriculum, and assessment and training for acquaintance with e-learning environments are also essential for ensuring readiness towards accepting e-learning methods.

Through this case book, we have tried to bring to the readers the experiences, research studies, insights and challenges of the institutions across the globe, which when analyzed seem to highlight common concerns and perspectives for interactive technology and transnational collaborations in education. We hope through this endeavour, we will be able to get the institutions closer and enhance the accessibility of education.

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