Preface

In the present era, development and technology are becoming synonymous whether by synergy or by synthesis in every domain be it social, cultural, educational, agricultural, industrial, or medical at national or at international level, and alliance is its catalyst. Twese Hamwe project, Schools on Ice, UniGIS, UniNet, Global Studies, ESD and Twinning are real world instances of such transnational interventions signifying greater role of sharing, collaborating, exchanging, and integrating. Albeit the nomenclature here differs but the spirit remains the same, i.e. spirit of interacting, spirit of joining hands, spirit of pooling resources, spirit of strengthening, cooperating, partnering, and so on for educational development. This book is an endeavour to demonstrate this through its collection of cases on transnational learning and technologically enabled environments and it presents numerous evidences of digital dividends mitigating the once upon a time divide through collaborative technologically enhanced interactive environments.

The case studies here speak volumes on the national and international initiatives undertaken worldwide for adapting the advancements in information and communication technology for successfully facing the challenges posed by various social and economic forces. They represent both instances of institutions, that are in transition and contrarily those that are readily using technology in education. As there are cases on interactive Digital Television (iDTV) for personalised t-learning, classroom management through synchronous online learning, and open source Dokeos / Claroline system based e-learning system “Minerva” as applied in Belgium and China that demonstrate the wide ranging application of technology in education, so are also its other purposeful uses in cases namely ORIENT (overcoming refugee integration with empathetic novel technology) for inter-cultural learning to improve social integration of youths with migration background in European countries, self paced learning (SPL) for healthcare providers in Ghana, spatial ability training in virtual environment for engineering drawing and collaborative knowledge construction in interactive online learning environment.

Being transnational in letter and spirit, the book has an assortment of case chapters on exemplary academic pursuits representing many nations. These include Rwanda, Ghana, Nigeria, South Africa, the Netherlands, Germany, Belgium, Italy, Spain, UK, Portugal, Turkey, Israel, Iran, Saudi Arabia, USA, China, Malaysia, and finally Austria and its transcontinental educational ventures in Nepal, India, China, Kyrgyzstan, and Azerbaijan and also in European nations of Slovakia, Slovenia, Armenia, and Georgia.

The first chapter by Gilbert Ahamer and Thomas Jekel of the Institute for Geographic Information Science at the Austrian Academy of Sciences begins with a conceptual background of how spaces are constructed from the perspectives of societal learning and formation of social spaces. The authors accentuate the importance of design of structures in time, space and in the space of opinions and suggest that these facilitate multi-perspectivist and multidisciplinary understanding of involved stakeholders. This belief is aptly supported by projects of cooperative learning through dialogue.
Moving on to the second chapter where Paul Breen explores the case of *International Collaboration for Technology Enhanced Education in Rwanda*. The case study is an interesting account of the collaborative project of teacher training depicting true partnership between western institutions and their counterparts in the developing world addressing the social, technological, economic, and political factors of this African nation.

In the next chapter, the challenges of national culture in delivering MBA programs in emerging markets through transnational learning and collaboration have been examined by Stephanie Jones. The author takes into account number crucial cultural dimensions in this study that have notable implication on the delivery of the program.

In the fourth chapter of the book *ORIENT – The Intercultural Empathy through Virtual Role-play*, authors elucidate ORIENT (Overcoming Refugee Integration with Empathic Novel Technology) towards developing inter-cultural empathy for 12-14 year olds. The paper endeavors to discuss games and role playing exercises for fostering social and emotional learning, besides illustrating ORIENT in the psychological and pedagogical domains. It also highlights role of novel interaction modalities as active engagement in collaborative learning environment.

Karina Clemmons, Amanda Nolen, Andrew Hunt, Cheryl Grable, Shirley Pickle in the fifth chapter attempt to address the critical issue of educating teacher candidates for managing synchronous online secondary classes. While exploring important questions like “how is classroom management addressed in an online learning environment?” and “what are the necessary components of an effective online learning environment?”, the authors examine various issues that affect the classroom management in the online environment.

Self Paced learning (SPL) intervention together with paired learning teams, clinical practice with feedback, and supervision for health care workers in Ghana are core issues examined in the sixth chapter by Nancy Kiplinger and Hannum Wallace. The authors while evaluating this approach opine that this approach being cost effective produces greater learning gains as compared to traditional face to face approaches and suggest strategies for technology mediated effective learning design.

The seventh chapter of this case book is on the use of interactive digital television (iDTV) for personalised t-learning given the wide spread use of this medium. The technological framework presented in the study by the authors is divided into two main parts: the production side, where the course is created and the client side, where it is presented on interactive digital television (iDTV) through an interactive learning environment. For this purpose, experimental television learning (t-learning) courses were created which served as an important test and evaluation parameter for the framework.

In the next chapter, Chang Zhu, Martin Valcke and Tammy Schellens explore the comparative e-learning environments which are based on Dokeos/Claroline system in the overall perspective of student, teacher and context. While comparing the learning environment in Belgium and China, authors were of the view that not only the Chinese and Flemish students differ in their perception and satisfaction towards technology enabled learning environments but also their teachers are in different stages of familiarising and adopting the technology for education. This case makes a sincere attempt to establish a linkage between cultural dimension and the specific contexts of institutions and culture in order to overcome the disparities identified in the paper.

The research by Ahmad Rafi and Khairul Anuar B. Samsuddin on Impact of Spatial Ability Training in Desktop Virtual Environment shows that spatial visualization was significant in predicting performance in basic engineering drawing task. In the ninth chapter, authors investigate the extent of Spatial Visualization (SV) and Mental Rotation (MR) training improvement, differential impact attributed to gender and training method, and training transfer to engineering drawing task. The outcome of the study shows that while transfer of training to performance in solving engineering drawing task with groups of
differential performances, the group with higher spatial ability managed to perform the task better than the group with lower spatial ability post spatial training.

Rikki Rimor and Yigal Rosen in the case of Collaborative Knowledge Construction in Online Learning Environment attempt to find the answer of the question: Do learners through the process of knowledge construction with a collaborative learning orientation differ from learners with an individual learning orientation? The results of the study in this chapter demonstrate that learners with collaborative learning orientation succeeded more in the collective criteria of knowledge construction, compared to those in the less collaborative ones. Rikki and Yogel advocate that findings in this study can have lasting implications on planning, coordinating and evaluating collaborative learning environment.

The authors in the eleventh chapter make an effort to link the Faculty Professional Development project (FPD) with the demands for student competence and teaching accountability. The authors believe since FPD aims at developing and implementing online courses for training faculty members, it facilitates in understanding how effective faculty is critical to understanding the success or failure of the FPD innovation. The arguments in this chapter response to the needs of potential impact of e-development on faculty and agency staff members’ learning and electronic training for quality assurance specifications.

Ruth Reynard in the next chapter Real Time Internet-Based English as a Foreign Language Learning makes an effort to explore the potential for using simple online technology to connect native language speakers of English in the USA and foreign language learners of English in China. The author investigates upon the factors that lead to the successes in language and cultural exchange within a real time technology-mediated class and also identifies the challenges thereupon.

The following chapter in this collection of cases is yet another unique case of applying technology-enhanced learning methods for skill enhancement however this is pertaining to geographically dispersed post-diploma nursing learners who are located in remote rural places of South Africa and are with minimal computer literacy. The authors Mirriam Tlhapane and Sibongile Simelane identify the issues and challenges in using technology enabled teaching and learning methods to such segment of learners and determine viable means of providing easily accessible modes of education and training.

In the fourteenth chapter of the book, Omiunota N. Ukpokodu documents the teacher educator’s successful adaptations of traditional pedagogies in online teaching. In this case, he tries to find the answer to the question “whether online teaching is an inadequate and inappropriate substitute for the traditional face-to-face instruction in a teacher education?” The outcome of the case suggests that online teaching paves the way for successful student quality learning and adaptability of traditional pedagogies. Besides, it also discusses the promises and challenges in designing and implementing an online teacher education course.

Alda Maria Pereira, Luis Tinoca and Isolina Oliveira in the chapter, Authentic assessment contribution to competence based education: questions and challenges look at the Learning Contract to facilitate assessment authenticity for enhancing student learning. The authors’ viewpoint is that use of the Learning Contract can increase student’s responsibility and commitment in their learning and it also facilitates learners towards contributing to the development of their life-long learning competencies.

The Linked Course, Project Learning, and Ramifications for Global Research, the next in the sequence of chapters, authored by Merrilee Cunningham and Ruth Robbins, underscores the importance of linked courses that serve as an excellent example of what can happen when two educators in diverse disciplines work together to blend, syncretize, and synergize the learning experience. The authors present this study as a model for global research and demonstrate how in a regionally accredited urban university, high risk students enrolled in a freshman English course are simultaneously enrolled in a freshman level computer information systems class where project learning is taking place.
Mohammed Saleh Al Balawi of King Fahad Naval Academy, Saudi Arabia analyses the preparedness of conventional universities in Saudi Arabia for implementing Web-Based Instruction (WBI) methods. In the sixteenth chapter of the book, he attempts to find incentives for faculty to use WBI in their instructional strategies, the institutional and personal barriers to implementation of WBI as well as investigates the attitudes of the faculty members at Saudi universities toward WBI.

Assessment methods used in an educational program go a long way in determining the quality of teaching and learning. The chapter by Erman Yukselturk and Orhan Curaoglu analyzes eleven online educational programs of different universities in Turkey with regard to the use of a blend of assessment methods based on various parameters. They identify the most commonly used online assessment techniques, the issues involved in using these techniques and the most effective methods for assessing the performance of the students.

Abbas Bazargan and Amin Mousavi consider blended approach as more promising in the teaching-learning process in developing research competencies. In this chapter, they outline an experimental approach in designing and developing an e-course, factors affecting its design and development and share the experiences gained through building the community of inquiry together with lessons learned.

The next case study authored by Luis Palacios and Chris Evans is on the use of interactive self-assessment questions (ISAQs) for helping undergraduate students learn in an e-learning environment. The study tries to determine the relationship between different levels of interactivity and memory and understanding of the students.

Finally this case study makes an attempt to identify the problems and perspectives of integrating innovative methods of technology enhanced instructional system with the traditional system in the higher education setup in Nigeria, focusing specifically on teaching and learning in the Obafemi Awolowo University, (OAU).

It is hoped that this book will be beneficial for educational technologists since it showcases varied applications of technology enabled environments in teaching, learning and research. This collection of analytical and evaluative cases on how institutions of learning across the globe are adapting to technology enabled environments for promoting transnational learning will be certainly a good resource book for all in education, its management and development.

We are greatly indebted to all the authors who have contributed interesting and remarkable case studies for this volume and have helped us in making this project successful. We have thoroughly enjoyed working with each one of the authors and we also hope it is the same for all of you and we are glad to have this book which is finally another model of excellent team work, collaboration and partnership. Our sincerest gratitude to the IGI-Global team members for their kind assistance and cooperation, and the incredible support rendered to us since the very outset of the project.

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