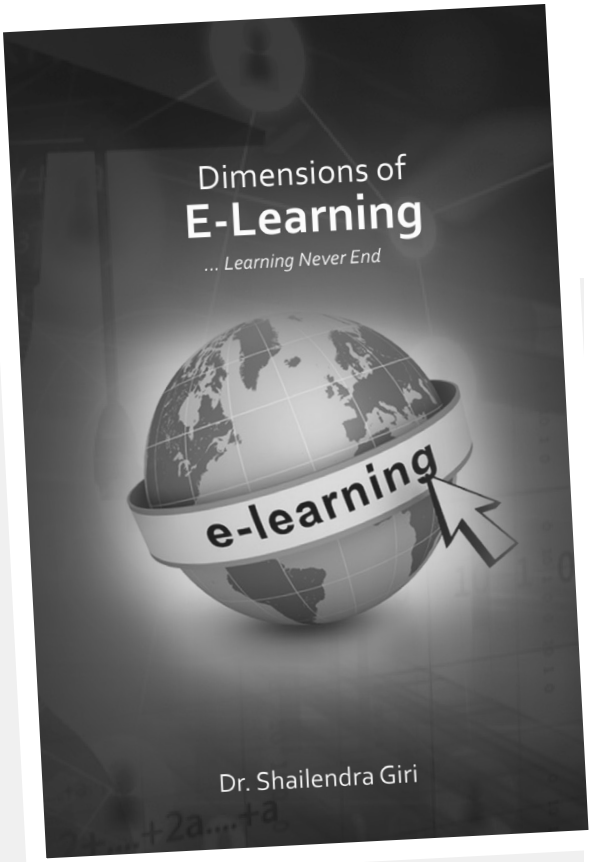


... Learning Never End

Foreword

The research book ‘Dimensions of E-Learning’ written by Dr. ShailendraGiri, the Executive Director of the Local Development Training Academy (LDTA), JawalakhelLalitpur, who has been involved in the teaching and training professions for the last 26 years. He is one of my close friends.

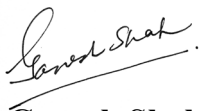
In today's age of science, information andtechnology, it is no longer relevant and desirable to keep education and learning within a single framework. For a long time now, distance and open education has entered the world. Now, it being more popular these days due to COVID-19 pandemic.

We all know that the use of digital technologies and applications are making e-learning more effective and efficient. In a country like Nepal, geographical diversity, economic diversity, social diversity and technical diversity are still creating serious problems on the way of development, it is also the definitive responsibility of the state to move students and common stakeholders forward in a timely manner by connecting them with e-learning. There are definitely many challenges before us to make e-learning successful and sustainable in the nation. Facing these challenges, it is imperative to come up with solutions.

For virtual teaching and learning around the globe, this research book will help the present and future generations to participate in learning and training through e-learning and achieve success. I think this book will certainly be helpful for teachers, learners,

educational institutions, educators who are interested in teaching, training and in research.

Dr. Giri, an experienced and intellectual person whose other research books can also be read by any researchers. I express my heartfelt gratitude to Asmita Books Publisher and Distributors (P). Ltd. for taking responsibility of the publication and distribution of this book. Finally, let this book reach the hands of all the readers. I wish the author and researcher Dr.Giri'sbright future. Thank you.



Hon. Ganesh Shah

Former Minister of Science and Technology, Nepal.

Foreword

It is with great pleasure that I write the foreword of this book.

Distance education, online teaching and open education have been started in Nepal for decades. Recently, electronic learning (e-learning) and mobile learning have also come into practice. This research book 'Dimensions of Electronic Learning' is very relevant at present.

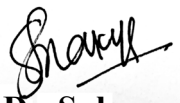
I had got the opportunity to be the supervisor of author's doctoral research. That is why, I know him very well. From the principal of Rapti EngineeringCollege to the Executive Director of the Local Development Training Academy, he has a lot of teaching and training experiences.

This book is research based and covers Distance education to e-learning to Mobile learning. The book also covers how online education is practiced internationally. This book explores how technology affects Nepal's current online learning, its prospects, challenges, and solutions. After the pandemic of COVID 19, the demand of e-learning has spread in the country and abroad. In this context, the prestige of this book has increased even more.

I believe that this research book will be very fruitful for teachers, students, educational institutions and educators who areinterested in teaching and learning and research work. In the future, if e-learning may be included in the university curriculum, teachers, trainers, students, parents and educational institutions will get

more benefit from this book. Hoping that this book will open the door of cloud learning.

I am self-assured that Dr. Giri will continue his book writing and research work in the days to come. At last, I think this book will set a different roadmap in the field of science, technology, education and research. I wish multidimensional personality, author and researcher Dr. Giri'sprogress and bright future.



Prof. Dr. SubarnaShakya
Director, IT Innovation Center
Tribhuvan University, Nepal.

Dimensions of E-Learning

There is great technological revolution taking place in education sector. World's education system is gradually adopting e-learning. The growth of e-learning is being essential for social life in present scenario. This book provides a rational understanding to dimensions of e-learning in Nepal.

The author has tried to draw the attention towards the area of research to explore the technological, pedagogical and organizational implications of e-learning. So that educators may use this book to use and realize the full potential of e-learning. A unique feature of the book is that the author focuses less on the specifics of the ever developing technologies in distance education and mobile learning.

This book is expected to contribute for researchers, practitioners, academicians and senior administrators looking for guidance on how to adopt e-learning in their institutions successfully. It will also help the individuals with an interest in the impact of e-learning on education and society.

Dr. Shailendra Giri is the Executive Director at Local Development Training Academy (LDTA), Jawalakhel, Lalitpur Nepal. He was Executive Director at Personnel Training Academy (PTA), Ministry of Federal Affairs and General Administration (MoFAGA), Principal at Rapti Engineering College and lecturer at Tribhuvan University. Giri has 26 years of experience related to ICT education as an instructor, teacher, administrator, researcher in various institutions. Dr. Giri's areas of research related to the e-governance, e-learning, teaching and learning deal in the context of distance education and e-learning.

- Ashmita Books Publisher and Distributors (P) Ltd.

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First and foremost, I thank our reviewers. I would like to acknowledge the contributions of Professor Dr. SubarnaShakya and Prof. Dr. ShateeshKumar Ojha who guide me and they provided the foundation of this book. I also wish to acknowledge the contributions of Bishnu Prasad Khanal, Associate Professor of Tribhuvan University who inspired and promoted me to accomplish this book.

I would like to specially thank to Er. Chinta Mani Baral, Chief Engineer at Nepal Television and also like to thank editors Mr. Dhaniram Yogi andDamodarGirifor their efficiency and generosity in working with me and Ashmita Books Publisher & Distributors (P). Ltd. for competence and expertise.Finally, I am grateful to my parents, my spouse, brothers, friendsfor the understanding and support of who helped me to survive throughout this process. Finally, I would like to express my sense of gratitude and acknowledge the support of Ministry of Federal Affairs and General Administration, Local Development Training Academy, Mahendra Multiple Campus and Rapti Engineering College, Ghorahi Dang, Nepal team whom I have worked with for several years.

- Dr. Shailendra Giri

Preface

The Dimension of e-Learning provides the framework for understanding the utilizations of e-learning in education. We view e-learning as the learning facilitated online through network technologies. With the growth of distance education and e-learning, there is an increasing necessity in the field of research and writing on the pedagogy of e-learning today. This book aims at developing the concept in many issues and practice on the subject matter of distance education, online educationand e-learning teaching and mobile learning.

In this book, the common definition of teams and groups is, of course, modified to incorporate the elements of vitality in the medium of internet.

The chapters in this book provide the description of distance education, e-learning, online educationand Mobile learning as wells as wireless technologies.

Overview of Contents

The first chapter describes the context and outlines of exploring the understanding the potential of distance education and e-learning. It makes the point that distance education and e-learning in Nepal. They are the new learning pedagogy with digital technologies. There is key reason to believe that it will transform teaching and learning in modern era.

The second chapter outlines the use of e-learning in education, types of e-learning, features of e-learning, impact of e-learning, advantages and disadvantages of e-learning. It also outlines the threats and challenges of e-learning.

The third chapter speaks out about the technology enabling e-learning. It also outlines the digital capital and digital society, emerging learning through technology, development of educational technology, digitally enhanced pedagogy and digital use divide. It also explores the protections for student's data and privacy as well as device and network management.

The fourth chapter provides an overview of online education in Nepal, ICT education in Nepal, policy on ICT in education, ICT readiness and online learning technologies. It also elaborates the impact of online education and its challenges.

The fifth chapter offers the international practices of online education. It further elaborates learners' expectations, learners' readiness, and learners' identity, and learners' participation, issues related to instructors and online education during covid-19 pandemic and its affects.

The sixth chapter explores the mobile learning and digital technologies. It also deals with learning Media, uses of mobile devices for learning, effectiveness of m-learning, advantages and disadvantages of m-learning and wireless technologies of mobile learning, mobile learning applications and its challenges.

Contribution of this Book

This book contributes a meaningful framework and approach to the understanding of the fundamentals of distance education, e-learning and mobile learning. It explains digital technologies and new innovations on e-learning pedagogy. The focus of this book is less on the specifics of the evolving technologies used for e-learning. This is the comprehensive and coherent framework to guide our understanding of e-learning in education and society.

This book is of particular relevance to those who are less inspired by technological gadgetry and egger to adopt virtual teaching and learning that e-learning represents. This book will appeal to a broad audience interested in e-learning. The primary stakeholders, however, are researchers, practitioners, and senior administrators in lower and higher level education who must guide the adoption in their instructions of this unique and rapidly changing technology.

This book can be used as basic research framework and a tool to study and understand the characteristics of distance education, e-learning and mobile learning and to explore its optimal educational applications with international practices. It will also be useful as a text book for education and training as well as distance education and virtual education courses. Finally, it will be a valuable reference and guide for senior decision makers in education.

Abbreviations

LMD	Mobile Learning Device
MES	Mobile Educational Software
MLC	Mobile Learning Content
PCs	Personal Computers
LMS	Learning Management System
VLE	Virtual Learning Environment
AECT	Association of Education and Communication Technology
WA	Whatapp
FB	FaceBook
MIT	Massachusetts Institute of Technology
SMS	Short Message Service
IRDA	Infrared Data Association
IBM	International Business Machine
GHz	Gega Hertz
GPS	Global Positioning System
RFID	Radio Frequency Identification
ISP	Internet Service Provider
CMS	Content Management System
LMS	Learning Management System
CPD	Continuous Professional Development
COVID-19	Corona Virus 19
DOIT	Department of Information Technology

CD-ROM	Compact Disk Read Only Memory
ICT	Information Communication Technology
IT	Information Technology
DEO	District Education Office
OLPC	One Laptop per Child
REDs	Regional Directors
DOE	Department of Education
NCED	National Center for Educational Development
IAC	Industry-Academia Collaboration
SSRP	School Sector Reform Plan
NEP	Indian Education Policy
UNICEF	United Nations Children's Emergency Fund
UN	United Nations
NTV	Nepal Television
TV	Television
DVD	Digital Versatile Disk
SAARC	South Asian Association for Regional Co-operation
IOE	Institute of Engineering
NESP	New Education System Plan
RETT	(Radio Teacher Training)
NCED	National Center for Education Development
PTTCs	Primary Teacher Training Centers
CTEVT	Council for Technical Education and Vocational Training
MOE	Ministry of Education
UNESCO	United Nations Educational Scientific and Cultural Organization
CEHRD	Education and Human Resource Development Center
US	United States
UDL	Universal Design for Learning

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