TRANSFORMING EDUCATION

With Artificial Intelligence: Strategies and Innovations

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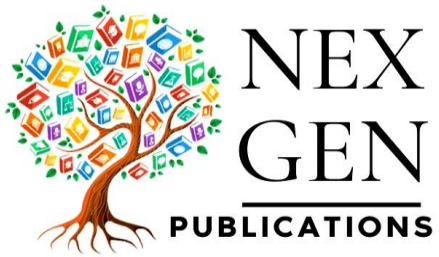
Transforming Education with Artificial Intelligence: Strategies and Innovations



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Transforming Education with Artificial Intelligence: Strategies and Innovations

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Preface

Today's world of fast change puts education at a critical crossroads. The introduction of artificial intelligence (AI) has led to an increasing need to reconsider how we educate, learn, and get students ready for the future. The **book "Transforming Education with Artificial Intelligence: Strategies and Innovations"** delves at the ways in which AI is changing the face of education and creating new avenues for both teachers and students.

This book is an acknowledgement of the difficulties and obligations associated with integrating AI into education, as well as our attempts to comprehend the technology's promise. AI is about developing personalised learning experiences, increasing productivity, and making sure that education is available to everyone. It is not simply about robots and futuristic technology. Our goal is to offer a complete guide for educators, politicians, and anyone else interested in the future of education through case studies, practical techniques, and expert views.

It is our wish that this book would encourage you to reconsider education and to seize the fascinating opportunities that artificial intelligence presents. We must cultivate a balance between technology and human connection as we approach this shift, so that education continues to be both inventive and compassionate.

Acknowledgement

This book has been a voyage of discovery for us, and we are incredibly appreciative to everyone who has helped us along the road. Above all, we would want to sincerely thank the educators and AI specialists who so kindly offered their knowledge, experiences, and research. This book would not have been possible without the invaluable contributions you have made.

We extend our gratitude to the innumerable educators, instructors, and school officials who made it possible for us to investigate the useful uses of artificial intelligence in classroom settings. Many of the tactics and breakthroughs covered in this book have their roots in your feedback and practical experiences.

Our sincere appreciation is extended to our families, whose tolerance, inspiration, and steadfast support enabled us to maintain our concentration while we wrote. We are grateful to our friends and colleagues for their guidance, cooperation, and thought-provoking discussions that helped to mould our way of thinking.

At last, we thank the larger communities of researchers studying artificial intelligence and education, whose innovative work keeps expanding the realm of possibility. This book reflects our growth as much as it does yours.

Ms. Purvi Makwana

Dr. Jyoti kharade

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About the Authors

Ms. Purvi Makwana has over 12 years of experience in the field of education. She is currently serving as the Head of the Commerce & Management Department at Smr. Kaushalyadevi Maheshwari Mahila Mahavidyalaya, Nagpur, affiliated with Rashtrasant Tukadoji Maharaj Nagpur University. She is also pursuing her PhD from Shri Ramdeobaba College of Engineering and Management. Ms. Makwana has published papers in esteemed SCOPUS, ABDC, and UGC Care List journals and has presented her research at numerous national and international conferences of repute.

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She is Vice Principal and Associate Professor at Bharati Vidyapeeth's Institute of Management and Information Technology. She is PhD in Technology Management under Management Studies from Jankidevi Bajaj Institute of Management and Research, SNDT Womens' University, Mumbai. She has 21 years of experience. She has been awarded with Academic Leadership award in 2023. Won Gold medal in AIMS 24th Annual Convention for AIMS-WeSchool Innovation Award held in 2012 and 2014. Awarded top performing mentor for NPTEL Online Courses. She was Board Of Studies (BOS) Member Computer Applications, University of Mumbai. She has worked as NBA Coordinator. She has published 5 Scopus indexed papers, 6 UGC Care and more than 40 papers in International Journals and Conferences. She has authored 2 books titled "Java Programming for

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Dr. Pratibha Deshmukh is an Assistant Professor of Dept. MCA, Bharati Vidyapeeths IMIT Navi Mumbai and having more than 18 years of experience in Academic and Research. Doctoral research was held in an ICT of Sugar Industry Administration in Western Maharashtra. During Doctoral research received Best Paper Award - Bhartiya Sugar, Pune. Silver Medal Award - Online Certification in OO Sys Development using UML, JAVA & Patterns. Brand Ambassador and Active SPOC Award – Swayam NPTEL Coordinator IIT Madras. Published more than 50 research papers in reputed National, International, Symposia, Industrial Journal and UGC care, Scopus, WoS. Having good consultancy expertise in analysis, design and modelling for any real-time solution. She is Member of Flying Squad at University level, Coordinator of IQAC, Chief-editor Newsletter Prabhat, and Chairmen Women Development Cell.

Dr. Jayalekshmi K R is an Associate Professor with NCRD's Sterling Institute of Management Studies, affiliated to the University of Mumbai. She possesses a whopping 27 years of professional experience. Dr. Jayalekshmi holds a doctorate degree in Computer Science from Dravidian University, MPhil in Computer Science from Alagappa University, postgraduate degree in Computer Applications from Madurai Kamaraj, and a graduate degree in Mathematics from Kerala University. She also possesses a postgraduate diploma in Business Analytics from Birla Institute of Technology & Science.

Over 27 research articles have been presented and published by her in esteemed venues, such as renowned national / international journals and conferences. Her research interests are in Data Science, Business Analytics, and Artificial Intelligence &Machine Learning. She also holds many certifications from IITs in these research areas. Dr.Jayalekshmi has contributed to the curriculum design of the Master of Computer Application degree, at the University of Mumbai as convener and co-convener for various subjects, and has guided more than 25 research articles and 100 PG projects.

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ABOUT THE BOOK

The extensive handbook **"Transforming Education with Artificial Intelligence: Strategies and Innovations"** examines the significant impact AI may have on changing education. This book explores useful methods for promoting personalised learning, increasing teaching effectiveness, and incorporating AI into the classroom. It offers insightful information on a wide range of subjects, including AI-driven tools and technology and ethical issues, to educators, students, and politicians.

Whether you're an experienced teacher hoping to use AI to improve your classroom or just a curious reader interested in what the future holds for education, this book offers the knowledge and resources you need to successfully navigate this exciting shift.

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