AI-DRIVEN LEARNING:

A CRITICAL EXAMINATION OF INTELLIGENT TECHNOLOGIES IN EDUCATION

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Preface

In recent years, the integration of Artificial Intelligence (AI) into educational systems has rapidly transformed how we teach, learn, assess, and engage with knowledge. From personalized learning algorithms and intelligent tutoring systems to automated grading and predictive analytics, AI is reshaping traditional pedagogies and institutional frameworks at an unprecedented pace. While this technological shift offers exciting possibilities for enhanced learning outcomes and operational efficiencies, it also raises profound questions about equity, ethics, agency, and the evolving role of educators and learners.

This book, AI-Driven Learning: A Critical Examination of Intelligent Technologies in Education, is a timely and necessary exploration of these emerging dynamics. It seeks to move beyond celebratory narratives of innovation to critically analyze the promises, challenges, and contradictions of AI integration in diverse educational settings. Drawing from interdisciplinary perspectives—including education, sociology, philosophy, data science, and policy studies—this volume unpacks how intelligent technologies are influencing curriculum design, learner autonomy, institutional governance, and the broader socio-cultural landscape of education.

The objective of this work is not only to inform but to provoke reflection and dialogue among educators, researchers, policymakers, technologists, and students. By highlighting real-world applications, case studies, and theoretical debates, the book encourages readers to consider both the opportunities and limitations of AI in fostering inclusive, ethical, and human-centered learning environments.

As we stand at the crossroads of a technologically-mediated future, the need for thoughtful, critical engagement with AI in education has never been more urgent. It is our hope that this book contributes to that conversation, offering insights that empower stakeholders to navigate the complexities of AI-driven learning with responsibility, clarity, and vision.

Acknowledgement

We extend our deepest gratitude to all those who contributed, directly and indirectly, to the successful completion of this book, AI-Driven Learning: A Critical Examination of Intelligent Technologies in Education. This collaborative endeavor, undertaken by four authors from diverse academic and professional backgrounds, was made possible through the shared vision, collective effort, and unwavering support of many individuals and institutions.

First and foremost, we thank our respective institutions for providing us with the intellectual space, resources, and encouragement to pursue this critical inquiry into the intersection of Artificial Intelligence and education. The guidance and motivation received from our mentors, colleagues, and research communities have been invaluable throughout the development of this work.

We are particularly grateful to the educators, students, policymakers, and technologists who engaged in thoughtful conversations, provided case studies, and shared insights that enriched our understanding and perspective. Their real-world experiences helped shape the grounded and multidimensional analysis presented in these chapters.

To our families and friends, thank you for your patience, encouragement, and constant belief in our work. Your emotional support and understanding made it possible for us to dedicate time and energy to this book, even amidst competing personal and professional demands.

We also acknowledge the efforts of the editorial and publishing teams, whose expertise and dedication ensured the clarity, coherence, and quality of this volume. Your attention to detail and commitment to excellence have greatly enhanced the final outcome.

Lastly, we express our sincere appreciation to the readers. It is your curiosity, critical thinking, and commitment to meaningful change in education that inspire works like this. We hope this book serves as a catalyst for reflection, dialogue, and action toward responsible and inclusive AI-driven learning.

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About the Authors

Prof.(Dr) Ila Agarwal is a distinguished professor in the Teacher Education (B.Ed., M.Ed.) Department at Hindu Degree College, Moradabad.Her journey as a permanent faculty member began in 2001 when she joined NKBMG College, Chandausi.Over the past 24 years,as an educator, Dr. Agarwal is deeply committed to shaping future teachers who will significantly contribute to nation-building. She firmly believes that training future educators is an art that nurtures and refines hidden talents, ensuring that the next generation can make meaningful contributions both personally and professionally. Understanding that students are the backbone of the nation's future, she emphasizes the teachers play crucial role in guiding them. She advocates for a holistic approach to education, ensuring that students receive moral, ethical, and emotional support to become well-rounded individuals. She believes that teachers are not just educators but mentors and counselors who guide students in both their personal and professional journeys. Dr. Ila Agarwal continues to inspire generations of aspiring teachers, ensuring that they are equipped to make a lasting impact on society and due to her approach and contribution in the field of education she has been awarded "Pride of India"in 2018, again in 2018,"The APJ Abdul Kalam Award","The Indian Icon Award" in 2024 & in March 2025 Glantor X media portal has featured her amongst 100 powerful personalities of India.

A number of research papers of Dr Agarwal have been published in National and international journals. A poetry book of Dr l Agarwal entitled as "Antarman"

has also been published in 2019 by blue Rose Publication New Delhi.She also holds variety of other important positions like academic Counselor of IGNOU, guest lecturer ,external examiner ,research guide and many more. On 10 July 2025, Honorary award "VIDYA SAGAR" equivalent to D. Lit. was given to her on the recommendation of the academic council of KASHI HINDI VIDYAPEETH, Varanasi.

Dr. Amit Kumar Singh is working as Assistant Professor (Senior Scale), Faculty of Education, Hindu College, Moradabad, Uttar Pradesh, India 244001. He is a skilled researcher, teacher and writer in the field of Education. He completed his early education from Government Inter College, Bareilly and Higher Education from Bareilly College, Bareilly and S.S. (PG) College, Shahjahanpur. He has completed his Ph.D. in Education from Mahatma Jyotiba Phule Rohilkhand University, Bareilly. He has more than 15 years of teaching and research experience. He has presented his research papers in more than 30 National and International seminars and conferences. You have been the research guide for more than 30 M.Ed., students for their dissertations. You are the author of 3 books, 5 book chapters and more than 20 research papers have been published in National and International Journals. One of your patents has also been published. Even today, you are a continuous leader in the field of education, carrying the flag of self-respect on the path of your duties.

Dr. Navdeep Kumar Maurya is an accomplished academician, he holds MSc(botany) MEd, MPhil (Edu) PhD.(Edu), he is currently working as a Associate Professor in BEd/MEd Dept of Hindu College Moradabad,UP. {Affiliated, Guru Jambheshwar university Moradabad } he has published more than seventeen National and international research paper's and has written chapters in many books and editor in three books , one patent,and one research award,former member in BOS(BEd/MEd) in BKD university jhansi , former counsellor in B Ed IGNOU centre , former member of proctroal board &flying Scot in exam,formar sub nodal scholarship,SS&AS in Exam different time teacher re skills cell and different some other comments, earlier he was working as a assistant professor in Pt.JNPG College Banda U P.

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