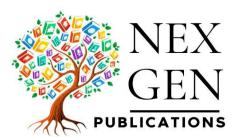


# DIGITAL LEADERSHIP:

# Navigating the Intersection of Management and Computer Science

Dr. Vinayak Vishwakarma Mr. Tejas R. Rohit Dr. Pooja Rastogi Komagal Anupama K Dr. RK Mitharia

# Digital Leadership: Navigating the Intersection of Management and Computer Science



India | UAE | Nigeria | Uzbekistan | Montenegro | Iraq | Egypt | Thailand | Uganda | Philippines | Indonesia www.nexgenpublication.com

# Digital Leadership: Navigating the Intersection of Management and Computer Science

Authored By:

**Dr. Vinayak Vishwakarma** Assistant Professor, Jaipuria Institute of Management

# Mr. Tejas R. Rohit

Assistant Professor of Department of Management Studies at Laxmi Institute of Management, LVS Campus, Sarigam, Gujarat

## Dr. Pooja Rastogi

Professor and HOD, Department of Forensic Medicine & Toxicology in School of Medical Sciences & Research, Sharda Hospital, Greater Noida, Uttar Pradesh

## Komagal Anupama K

Professor, Gopalan School of Architecture and Planning, Bengaluru

### Dr. R K Mitharia

HoD, Department of Commerce and Management, Modern College of Professional Studies, Mohan Nagar, Ghaziabad Copyright 2024 by Dr. Vinayak Vishwakarma, Mr. Tejas R. Rohit, Dr. Pooja Rastogi, Komagal Anupama K and Dr. RK Mitharia

First Impression: July 2024

# Digital Leadership: Navigating the Intersection of Management and Computer Science

# ISBN: 978-81-19477-24-1

### Rs. 1000/- (\$80)

No part of the book may be printed, copied, stored, retrieved, duplicated and reproduced in any form without the written permission of the editor/publisher.

#### DISCLAIMER

Information contained in this book has been published by Nex Gen Publications and has been obtained by the authors from sources believed to be reliable and correct to the best of their knowledge. The authors are solely responsible for the contents of the articles compiled in this book. Responsibility of authenticity of the work or the concepts/views presented by the author through this book shall lie with the author and the publisher has no role or claim or any responsibility in this regard. Errors, if any, are purely unintentional and readers are requested to communicate such error to the author to avoid discrepancies in future.

Published by: Nex Gen Publications

# Preface

In a time where technology is a part of everything we do, leadership has taken on a whole new meaning. For any progressive organisation, the nexus between computer science and management is not just necessary, but also essential. The urgent necessity to connect these two vital fields gave rise to this book, "Digital Leadership: Navigating the Intersection of Management and Computer Science." To lead their teams to success in the ongoing digital transformation of firms, executives need to have a special combination of technical expertise and managerial know-how.

Our quest to write this book has been driven by in-depth study, practical experience, and the increasing need for leaders who can effectively blend technology and strategic management. Our goal is to provide aspiring and established leaders with the skills and information needed to succeed in this fast-paced setting. For anyone looking to comprehend and capitalise on the potential of digital leadership, this book serves as more than just a reference.

We have made an effort to make difficult ideas understandable so that readers with a variety of backgrounds can learn the fundamentals of digital leadership. Whether you're a seasoned professional, an aspiring business owner, or a motivated learner, this book provides insightful analysis and useful guidance to help you navigate the changing digital landscape.

# Acknowledgement

It has been a collaborative and enriching process to write "Digital Leadership: Navigating the Intersection of Management and Computer Science". We sincerely thank everyone who helped to make this initiative a reality.

Above all, we would want to express our sincere gratitude to our families for their constant support and patience during the writing process. Their patience and support have been crucial to finishing this work.

We express our gratitude to our mentors and colleagues for their crucial suggestions and insights. This book's content and organisation have been greatly influenced by their knowledge and counsel. We would especially want to thank our research assistants and technical advisors, whose hard work and commitment made our ideas a reality.

In the end, we sincerely appreciate our readers. Your inquisitiveness and desire to delve deeper into the field of digital leadership motivate us to keep going. It is our goal that this book will be a useful tool and inspire you to combine computer science and management.

Dr. Vinayak Vishwakarma Mr. Tejas R. Rohit Dr. Pooja Rastogi Komagal Anupama K Dr. RK Mitharia

# About the Authors



Dr. Vinayak Vishwkarma holds a doctoral degree from the Indian Institute of Technology Roorkee (IITR). Additionally, he holds an M.Tech in Industrial Engineering & Management from and an MBA in Marketing from ITM Business School, Mumbai. He is a result-oriented researcher proficient in developing outcomes such as consulting projects, research paper publications, and course materials. With almost a decade of experience, he delivers insights through research work in areas of Pharmaceutical & Healthcare Supply Chain, Risk Management, Industry 4.0 Circular Economy, and Sustainable Production. He has published his research work in ABDC and Thomson Reuters listed journals specific to the Operations and pharmaceutical supply chains management domain. Currently, his research interest lies in the blockchain and AI in healthcare delivery systems with the perspective of technology adoption and sustainability.



**Mr. Tejas R. Rohit**, having 14 years of vast experience in academics, is presently working as an Asst. Professor of Department of Management Studies at Laxmi Institute of Management, LVS Campus, Sarigam, Gujarat.

Formerly he was Asst. Professor of Management & Training-Placement officer at Smt. Devkiba Mohan Sinhji Chauhan College of Commerce & Science – University of Mumbai.

He also served two highly reputed academic organizations of Saurashtra region of Gujarat State, Atmiya University (AU), Rajkot & Darshan University (DU), Rajkot, at the position of Asst. Professor of Management & Training Placement Officer.

He has guided more than 150 Technical & Non-Technical students in Projects at UG and PG level and published 06 Research Papers in various reputed international journals.

He has attended various National and International Conferences, Seminars, Workshops, Faculty Development Programmes and also Member of various Engineering, Technical & Management Associations.



### Dr. Pooja Rastogi MBBS, MD

**Dr. Pooja Rastogi** currently working as Professor and HOD, Department of Forensic Medicine & Toxicology in School of Medical Sciences & Research, Sharda Hospital. She also having administrative responsibility of Associate Dean. She had completed her MD in Forensic Medicine from King George Medical University, Lucknow, a prestigious Medical University of UP.

Dr. Rastogi has more than 20 years of teaching, research and Medicolegal work experience. She has contributed a large number of research papers to various national and International Scientific journals. She is a frequent speaker in conferences organized by leading forensic forums and provide Expert opinion in various medico-legal cases.



**Komagal Anupama K** doing Doctoral research in vernacular architecture and currently working as a professor in Gopalan School of Architecture and planning, Bengaluru. She did her M.A in psychology. She is an Associate professional in the Indian green building council. Her articles about alternative construction got published in various newspapers and magazines.



**Dr. RK Mitharia** (Ranu Kumar) is an accomplished academic with 13 years of teaching and research experience in management. He holds a PhD from Punjabi University, Patiala, and is a qualified UGC NET holder in both Lectureship and Junior Research Fellowship. Dr. Mitharia has contributed significantly to the field through published research in numerous national and international journals and books. Currently serving as the Head of the Department in the Department of Commerce and Management at Modern College of Professional Studies, his primary area of interest lies in research methodology. Dr. Mitharia's dedication to academia and his extensive background in teaching and research underscore his commitment to advancing knowledge in the field of management.

# Table of Contents

Preface	IV
Acknowledgement	V
About the Authors	VI - XI
Table of Contents	X - XI
Title of Chapters	Page No.
Chapter - 1	1 – 21
Introduction to Digital Leadership	
Chapter - 2	22 - 42
The Digital Transformation Landscape	
Chapter - 3	43 - 65
The Role of Technology in Modern Management	
Chapter - 4	66 – 96
Leadership in the Age of Digital Disruption	
Chapter - 5	97 – 120
Digital Strategy Development	
Chapter - 6	121 - 142
Cybersecurity and Risk Management	

Chapter - 7	143 – 165
Digital Ethics and Social Responsibility	
Chapter - 8	166 – 188
The Future of Work and Digital Leadership	
Chapter - 9	189 - 210
Case Studies in Digital Leadership	
Chapter - 10	211 - 243
Conclusion and Future Directions	

# **ABOUT THE AUTHORS**



Assistant Professor, Jaipuria Institute of Management



## Mr. Tejas R. Rohit

Assistant Professor of Department of Management Studies at Laxmi Institute of Management, LVS Campus, Sarigam, Gujarat



Dr. Pooja Rastogi

Professor and HOD, Department of Forensic Medicine & Toxicology in School of Medical Sciences & Research, Sharda Hospital, Greater Noida, Uttar Pradesh



Komagal Anupama K Professor, Gopalan School of Architecture and Planning, Bengaluru



### Dr. RK Mitharia

HoD, Department of Commerce and Management, Modern College of Professional Studies, Mohan Nagar, Ghaziabad

## **ABOUT THE BOOK**

To succeed in the fast-paced digital environment of today, leaders require a broader set of abilities beyond traditional management. They also need to comprehend the capabilities and power of technology. Your ultimate resource for understanding both management and computer science is "Digital Leadership: Navigating the Intersection of Management and Computer Science". This book breaks down complicated technological ideas and demonstrates how to apply them to boost company performance. This book offers useful insights and tactics for anyone trying to advance their tech knowledge, be they a manager seeking to become more tech-savvy or a tech expert hoping to become more skilled at leading. Discover how to effectively lead teams in the digital age, encourage innovation, and utilise the newest digital tools. This book closes the knowledge gap between management and technology by providing clear explanations and practical examples, enabling you to become a competent and self-assured digital leader.



India | UAE | Nigeria | Malaysia | Montenegro | Iraq | Egypt | Thailand | Uganda | Philippines | Indonesia Nex Gen Publications || www.nexgenpublication.com || info@nexgenpublication.com