UNDERSTANDING HUMAN BEHAVIOR:

Insights from Computer Science Research

Dr. Anuradha Shantanu Kanade
Dr. Jayanta Bagchi
Prasanna Suresh Pai
Mrs. Varsha Atul Shukre
Dr. Kushagra Goel

Understanding Human Behavior: Insights from Computer Science Research

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Understanding Human Behavior: Insights from Computer Science Research

Authored By:

Dr. Anuradha Shantanu Kanade
Program Director
Department of Computer Science and Applications
Dr. Vishwanath Karad MIT-World Peace University, Pune, India

Dr. Jayanta Bagchi
Associate Professor, MBA Department
BBIT, Kolkata under Makaut University

Prasanna Suresh Pai
Manager Corporate Finance

Mrs. Varsha Atul Shukre
Assistant Professor
Department of Computer Science and Applications
Dr. Vishwanath Karad MIT-World Peace University, Pune, India

Dr. Kushagra Goel
Associate Professor - Finance & Accounts
Atlas SkillTech University, Mumbai

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First Impression: September 2024

Understanding Human Behavior: Insights from Computer Science Research

ISBN: 978-81-19477-25-8

Rs. 1000/- ($80)

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Published by:
Nex Gen Publications

Preface

Researchers have been captivated by the complicated and interesting topic of human behaviour for millennia. Our understanding of and capacity for predicting human behaviour has increased dramatically as a result of technological advancements, particularly in computer science. **Understanding Human Behaviour: Insights from Computer Science Research** is a book that examines how computer science principles offer a new way to look at social interactions, behavioural patterns, and decision-making processes.

The goal of this effort is to close the gap that exists between computational models and conventional investigations of human behaviour. Through investigating fields like data analysis, machine learning, and artificial intelligence, we find out how technology is changing how we see people. Despite having a scientific foundation, this book is meant for everyone who is curious about how technology and psychology interact, providing information in an easy-to-read format.

The world is getting more and more data-driven, which presents new chances to comprehend our actions and their motivations. The concepts covered in this book provide important insights into human behaviour and practical ways we might use these understandings in our daily lives, from little actions to more significant social trends.

With the use of computer science, we believe this book piques readers' interest and offers a more profound comprehension of the human mind.

Acknowledgement

The combined efforts and assistance of several people and organisations made this book possible. First and foremost, we would want to convey our sincere thanks to the academics and researchers whose innovative work has made it possible to comprehend human behaviour via the lens of computer science. This book is built on their inventiveness and devotion.

We also owe a debt of gratitude to our friends and family for their unfailing support during this literary endeavour. Their support gave me the emotional drive I needed to finish this endeavour. We really appreciate the helpful input and ideas provided by our colleagues and partners, who helped shape the course of this work.

We would especially want to thank the professionals and specialists in data analysis, computer science, and psychology who shared their expertise and experiences with us. Your inputs enhanced this book and enabled us to communicate difficult concepts in a clear and understandable way.

Finally, we want to sincerely thank all of our readers. Your inquisitiveness and yearning to comprehend human conduct from novel angles urge us to investigate these fascinating disciplinary nexus. We hope you find this book to be interesting and enlightening.

Dr. Anuradha Shantanu Kanade

Dr. Jayanta Bagchi

Prasanna Suresh Pai

Mrs. Varsha Atul Shukre

Dr. Kushagra Goel

About the Authors

Dr. Anuradha Shantanu Kanade, presently working as Program Director in Department of Computer Science and Applications at Dr. Vishwanath Karad MIT- World Peace University, Pune. She was awarded Ph.D. degree from Savitribai Phule Pune University and M.Phil. from BVDU, she has completed MCA, and B.Sc. (Physics) from Shivaji University and MBA(BA) from SPPU. She is enthusiastic and passionate for teaching and research and works with dedication and positive approach. She has a vast experience of more than 22 years including 19+ years of teaching and about 2 years of industry experience.

She is approved PhD supervisor at Dr. Vishwanath Karad MIT World Peace University and her research interests are Databases, Data Science, Blockchain Technology, Cloud Computing, Algorithmics.

She authored more than 40 research papers in various national, international journals and conferences, including IEEE and Springer, and UGC Care publications and she has also received best paper awards for her papers in 2021 and 2022. There are 8 patents on her name, including 6 Indian and 2 UK patents. Three of her patents are granted, three are accepted and two are published.

She has completed the BCUD funded research project in 2015 and currently working on sponsorship under Innovation Funds Policy since Feb 2022. She authored five books on different topics viz. Emerging Trends in Information Technology, R Programming, Fundamentals of Data Science, Terminology and Technical Foundations of Blockchains.

She is member of the professional bodies including ACM, Informing Science Institute, BOS member of Department of Computer Science and Applications, Dr. Vishwanath Karad MIT World Peace University, Pune, Maharashtra, BOS member of Vivekanand Autonomous College, Kolhapur, Maharashtra, Pune, TPC member, Reviewer for many conferences and journals, Associated with state and private universities for research activities and collaborations.

She was invited as keynote speaker, session chair, invited speaker for many sessions on various topics.

She has worked as organizer and coordinator for many events such as International and National Conferences, Research Methodology Workshop, Guest sessions, industry expert seminars, inviting industries for internship and placement drives. She is having a huge experience of all academic, research and administrative responsibilities.

Dr. Jayanta Bagchi is a PhD in Human Resource Management from KIIT University. He did his Masters in Business Administration from IISWBM, Calcutta. He has worked in the corporate sector for 10 years and then into the academic field with 17 years experience to fulfill his passion of building young responsible managers of today. . He has conducted Team Building and Leadership Training program for NTPC, LANCO, and workshop on Ethical Values in workplace for Personal & Administration Department of Govt. of Sikkim and for Micro Small & Medium Enterprise (Govt. of India).

Dr. Bagchi was also the member of the Selection Committee of a State cooperative Bank of Sikkim. He

was been an faculty at Sikkim Manipal University for MBA Department and MHM (PG) course. He was selected as speaker by V.V Giri National Labour Institute for conducting a two–day Workshop on Labour Relation in Tourism Industry in Sikkim. He has attended various faculty development programs and national conferences and faculty development programme at Sikkim Manipal University and KIIT University. He has co-Authored a book on Communication Skill & its Effectiveness and also on Legal Aspects of Business. He has published a research paper on "Talent Analytics - An in-depth study of its impact on Employee Retention" in Scopus. He has also published one paper in UGC titled "Global Human Resource Practices in Business – A Paradigm Shift" and also chapters on Global Advancement in HRM- Innovation and Practices, Measuring Human through Analytics and Business Intelligence. He teaches both at the UG and PG level and is presently involved in teaching Principle and Practice in Management, OB, Business Ethics and HRM & IR. He is passionate in doing research in human resource domain.

Prasanna Suresh Pai resides in Vile Parle East with his family, having lived there for over 40 years. He completed his schooling at St. Xavier's High School in Vile Parle West, graduating in the class of 1993. His college education was at M. L. Dahanukar College in Vile Parle East, where he graduated in 1998 from the University of Mumbai. Prasanna holds an MBA from Manipal University (2006) and a PGDM from Welingkar Institute of Management (2014). With 18 years of experience in Finance, Accounts, and Audit domains, he has worked with prominent organizations

such as Haribhakti & Co, JP Morgan Chase, Deutsche Bank Group, Nair & Co Corporate Solutions, and WNS Global Services Pvt Ltd. Prasanna has also published 8 research articles on Corporate Governance in Banks and received 2 Honorary Doctorate Awards in the Finance and Accounts domain. His aim in life is to utilize his skills and experiences for the growth and development of society and the nation.

Mrs. Varsha Atul Shukre presently working as an Assistant Professor in Department of Computer Science and Applications at Dr. Vishwanath Karad MIT- World Peace University, Pune. She has about 11 years of experience including 1 year of Industry and 10 years of Academic experience. She has completed her M.Sc. (Electronic Science) in 2012 from Savitribai Phule Pune University and qualified National Eligibility Test (UGC-NET) for the eligibility of lectureship in 2013. At present She is pursuing her Ph.D. from Savitribai Phule Pune University. Her fields of interest include Embedded Systems, Internet of things, Optoelectronics, Digital Systems, Analog Circuit Design, and Microcontrollers. She has published 12 research papers in various national and International Journals including conference proceedings. She has successfully completed many Faculty development programs and attended many conferences, workshops and seminars. She has an exceptional ability to inspire and empower students, fostering a love for learning, instilling critical thinking skills, and creating an inclusive and supportive educational environment.

Dr. Kushagra Goel has a work-ex of 18 years consisting of Industry and Academia. He is currently working as Associate Professor - Finance & Accounts, at Atlas SkillTech University, Mumbai. Before joining Atlas SkillTech University, he was working with NMIMS University as Program Chairperson & Associate Professor - Finance & Accounts. He has published 21 papers out of which 13 papers are in ABDC. He has presented multiple papers at various national and international conferences and has also published a book. He is a member of the Board of Studies of Ruia College. His areas of interest are: Corporate Finance, Valuation, Management Accounting.

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ABOUT THE AUTHORS

Dr. Anuradha Shantanu Kanade

Program Director

Department of Computer Science and Applications

Dr. Vishwanath Karad MIT-World Peace University, Pune, India

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Dr. Kushagra Goel

Associate Professor - Finance & Accounts

Atlas SkillTech University, Mumbai

ABOUT THE BOOK

A distinctive examination of how contemporary technology aids in our understanding of the complexity of human nature may be found in **"Understanding Human Behaviour: Insights from Computer Science Research"**. This book explores issues including artificial intelligence, data-driven models, and machine learning to find patterns in human behaviour by fusing the domains of computer science and psychology.

This book is written in an easy-to-read format that is suitable for readers of all skill levels. This book offers insightful information for anybody interested in how technology is influencing the study of human behaviour, be they a professional, student, or just someone with a general curiosity. By bridging two disparate domains, the interdisciplinary method offers new insights into social interactions, decision-making, and the future of behaviour prediction.

This book's main goal is to demonstrate how computer science is changing our perception of what it means to be human.

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