



**INTERNATIONAL MARKETING AND
MANAGEMENT RESEARCH**

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Managing Social Robotics and Socio-cultural Business Norms

Parallel Worlds of Emerging
AI and Human Virtues

Edited by

Anshu Saxena Arora ·

Sabine Jentjens ·

Amit Arora · John R. McIntyre ·

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Introduction

John R. McIntyre, Anshu Saxena Arora, and Amit Arora

The service sector has always been a laboratory for innovation. Technologies such as AI, clouding, and data banks have been implemented to revolutionize the future of society and industry. Whenever a new technology emerges, it induces fear and lack of trust. This volume, focused as it is on social robotics business norms and parallel worlds, is right at the core of the central question of trust and ethics in artificial intelligence. Some existing regulations could be applied to the notion of safety with robots but new ones will need inventing (Gualtieri et al., 2022; Wirtz, et al., 2018). According to the Association for Computing Machinery (ACM), professionals constructing and implementing such systems must attempt to ensure that the products of their efforts will be used in socially responsible ways, will meet social needs, and will avoid harmful effects to health and welfare (Klüber & Onnasch, 2022; Nagenborg, et al.,

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2008). Today's deep learning systems which imitate neural networks in the human brain and can absorb vast amounts of data are able to teach themselves to perform some tasks, from pattern recognition to translation, almost as well as humans can. As a result, tasks which once called for a human mind are now within the scope of computer programs. A noteworthy example of such is the research work done at the Georgia Institute of Technology where Professor Mark Riedl has employed techniques to encourage a game-playing AI to explain its own moves (Georgia Tech School of Interactive Computing, 2022). The Georgia Tech team trained an AI agent to match these narratives to the internal features of second agent that had already learned to play 'Frogger.' The experiment produced a system offering snippets of human language that described the way the second agent is playing the game. It is this type of experiments that open the black box of AI, raising essential questions about the limits and the uses.

Ethical considerations which are reviewed in depth in this volume are at the heart of the challenges faced by social robotics and its broader artificial intelligence applications in various societal fields. Today, artificial intelligence (AI) is a protean phenomenon which can surpass humans in performance in many areas of human activity. However, AI reaches its limits in unfamiliar situations, i.e., that are not represented in the training data. In such situations, humans remain superior to AI because humans can draw on prior and general problem-solving knowledge and consider the terms of the problem in the relevant context. Researchers then draw on their experience as well as knowledge passed down to them over generations. If unable to solve a complex problem, the iterative process of science helps: Hypotheses can be formulated, experiments conducted as well as investigations, thus confirming or refuting assumptions. AI, however, does not have (or has limited), at this point, corresponding knowledge transfer/dissemination to the same depth as humans do. AI is gaining importance in the new world of business, while in the parallel world, humans (still) lead the way. Machines with artificial intelligence (especially, social robotics that interact with humans) analyze big industry data sets that humans cannot and utilize them to form models that are effective in both worlds. Touchless AI, robotic, and digital technology have emerged as a critical support systems for educational, therapeutic, and emotional needs during the COVID-19 pandemic. The COVID-19 global pandemic has changed how the new world is perceived where touchless robotic/digital technology (e.g., social-collaborative robots)