

Chapter 2

What Effect Does Technology Have on a Responsive Leadership Style?

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ABSTRACT

All aspects of human life are affected by technology. It has changed the way individuals communicate with one another and conduct their everyday routines and business transactions. The world is undergoing a Fourth Industrial Revolution, which is radically altering the world of leadership. Artificial intelligence, machine learning, robots, and other cutting-edge technologies, in particular, are increasing efficiency and reshaping leadership and operations. Leaders in today's most successful firms must keep up with technology advancements and successfully leverage them to achieve laudable outcomes. The motivating element behind the new leadership style is technology and its ethical use. Literature gaps indicate that there is much more to learn about this issue and that it is critical to address it in order for enterprises to remain competitive.

INTRODUCTION

Globalization ushers in a new social and occupational paradigm. It is possible to communicate and interact anytime, from anywhere, face-to-face or virtually, making the organizational configurations volatile, uncertain, complex, and ambiguous (VUCA). Technology's leadership processes are increasingly mediated by technology, making room for tech-leadership, e-leadership, and virtual teams, whose conceptualization revolves around technology as a facilitator of communication, engagement, development, and work sharing (Machado & Brandão, 2019). Leadership is a crucial determinant of a successful employee, team, and organizational creativity and innovation (Hughes et al., 2018). The world is not in the grip of a technology crisis; instead, it is in the grip of a technological revolution. Humanity will

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see technological transformations and developments in the near future never before witnessed (Kluz & Nowak, 2016).

Technology's impact on organizations as change drivers and solutions to some of those very change imperatives makes it critical levers for the much-needed transformation of outdated management and leadership models. Unfortunately, most organizations are not entirely using the possibilities of this new ecosystem while it is still in its early phases. The connection between leadership practices and the emerging role of technology is underappreciated (Deiser & Newton, 2015). The efficacy of technology in various leadership styles has not been extensively examined in the literature.

Leadership experts have spent the last two decades attempting to track the consequences of digitization processes. Part of the scholarly discussion has centered on leaders' abilities to incorporate digital transformation into their organizations while also inspiring staff to embrace change, which is frequently regarded as a challenge to the present status quo (Cortellazzo et al., 2019). Technology advances at a rapid pace, and firms must continually adopt cutting-edge and bleeding-edge technologies in order to remain competitive. This necessitates flexible leadership, and businesses must have the proper leadership structure in place to allow for this change. It is possible that a hierarchical structure is not the optimal solution. Rather than developing a small group of individuals, management duties will most likely be distributed throughout a company. In today's increasingly digital environment, leadership models must be able to grasp the new road forward (Miller, 2021). This study aims to conduct a theoretical assessment of the impact of technology on responsive leadership style and provide theoretical clarity.

TECHNOLOGY OVERVIEW

The definition of "technology" involves applying scientific knowledge to achieve human goals, both for practicality and in industry. The mechanisms can be exceedingly simple or tremendously complicated.

Ten Types of Technology

Technology is a very broad term that refers to the use and comprehension of electronic tools and crafts, as well as how these goods and talents influence the ability to control and adapt to surroundings. Science and engineering have resulted in today's technology ("What is technology," 2019).

Today, various types of technology are available and induce advancements in multiple ways (Crook, n.d.). There are ten key forms of technology thus to explore, including how they assist their sphere of operation.

Entertainment Technology

Entertainment technology makes use of numerous manufactured or created pieces to increase or create the possibilities of any entertainment activity. This includes entertainment and activities such as video games, television shows, and so forth. Some persons are involved in the production, sale, design, creation, or use of such items and services in order to give greater entertainment experiences. The breadth of entertainment technology encompasses every sphere of human activity, including movies, music, literature, and so on, that allows people to entertain themselves. Due to increasing demand in the market, the education, scientific, and technology sectors are seeing significant expansion these days (Hayden,

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