Research in Management

Meaningful Work in a Post-Covid Age

The Impact of New Technologies

Edited by

Sharlene Buszka

Timothy Ewest

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Research in Management

Series Editor
Timothy Ewest

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And

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CHAPTER 1

MEANINGFUL WORK AND TECHNOLOGY: OPPORTUNITIES AND CHALLENGES

Sharlene Buszka
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BOOK INTRODUCTION

Since the World Health Organization declared the Covid-19 outbreak a pandemic on March 11, 2020 (Tedros, 2020), there have been significant shifts in the use of technology at work. This book explores the topic of how the Covid-19 related accelerated use of technology has impacted factors associated with meaningful work. For example, one of the most significant changes resulting from Covid-19 was the shift to teleworking. This was made possible by existing and new technologies such as video conferencing (e.g. Zoom, Microsoft Teams) and electronic messaging (e.g., email, text, Google Chat) (Donnelly, 2024) and other industry specific technology to be discussed within this book. For example, Zoom, one of more popular forms of videoconference technology, experienced significant growth between 2021 and 2022, with revenue increasing by 326% (Richter, 2024). Though the pandemic was extremely challenging, without such technology the resulting health, economic and social havoc would have been even more devastating. Postpandemic, the

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use of some forms of remote technology has decreased, however, the impact has remained. Other forms of technology such as generative artificial intelligence (AI) have become more mainstream, with organizations and workers exploring the benefits and ethical concerns of this technology pervading almost every area of life. The premise of this book is that new technology creates lasting changes to what are considered normal AND appropriate ways of performing work. With these changes come opportunities and challenges to meaningful work.

Historically, changes in the way we work brought about by the Industrial Revolution and multiple subsequent technological revolutions caused disruptions and stress to the workers impacted. Similarly, temporary or permanent loss of work such as during the Depression of 1930s and Recession of 2007–2009 resulted in increased mental health challenges and workers questioning the existential meaning of work. It can be argued that some workplace changes brought about because of the pandemic are welcome and beneficial (e.g., greater efficiency, less time commuting, greater work-life balance). However, it should not be surprising to find some in this post-Covid generation of workers also feeling disrupted, stressed, and questioning the role and meaning of work in their lives—much like their historical counterparts. To support this, it has been noted that since the beginning of the pandemic a record number of workers have been voluntarily leaving their positions. This exodus from work has been termed "The Great Resignation" (Amanor-Boadu, 2022). Many reasons have been cited for this higher-than-normal voluntary departure from places of work. Tessema et al. (2022) grouped causal factors into two broad categories of push and pull. Push factors are the reasons employees resign such as lack of flexible work, low pay and benefits, and lack of organizational support. Pull factors cause employees to join other organizations that provide these missing elements. According to The World Economic Forum, the top reasons workers cited for quitting their previous jobs between April of 2021 and April of 2022 included: lack of career development and advancement, inadequate total compensation, uncaring and uninspiring leaders, lack of meaningful work, unsustainable work expectations, unreliable and unsupportive people at work, and lack of workplace flexibility (Ellerbeck, 2023).

The chapters in this collection consider how Covid-19 workplace changes have created new opportunities and challenges, while possibly influencing what workers deem desirable or meaningful in the area of work. The two main topics discussed in this book, meaningful work and technology, are significant, broad, varied and at the same time ubiquitous in nature as the following descriptions will present. Therefore, the chapters in this book reflect only a very small sampling of what is likely to be a barrage of research in the next several decades on topics related to technology and meaningful work.

MEANINGFUL WORK

When discussing the topic of meaningful work, it is important to clarify the difference between the "meaning of work" and "meaningful work." For purposes of this book, the meaning of work is "what work signifies," while meaningful work refers to "the amount of significance attached to work" (Pratt & Ashforth, 2003; Rosso et al., 2010). Therefore, work can hold a particular meaning for a person (such as providing a steady source of income) but still not be perceived as meaningful if the work is simply a means to this end. It has also been argued that people find work meaningful when it aligns with their deeply held values (Allan & Liu, 2020). If, in the previous example, the individual highly values being able to provide a sustainable living for themselves and/or family, the work may be perceived as meaningful. However, for another person who values interesting and exciting work that is held in high esteem by others (and for whom a guaranteed source of income is assured), this same work may not be meaningful. Work motivation is also commonly associated with meaningful work, particularly internal work motivation which is "the degree to which an individual experiences positive internal feelings when performing effectively on the job" (Oldham, 1976, p. 559; Rosso et al., 2010). Hackman and Oldham's (1976) job characteristics model emphasized that the experience of meaningful work (among other things) was necessary for internal work motivation to occur. The many sources and mechanisms by which work becomes perceived as meaningful (Buszka & Ewest, 2020; Rosso et al., 2010) have been explored. The primary sources of meaning include self, others, the work context and spirituality. The source of others includes relationships in the form coworkers, leaders, and other employment related communities such as teams, divisions, networks and professional associations.

The topic of meaningful work is not new in theology and the social sciences. However, like other scholars (Allan & Liu, 2020; Rosso et al., 2010), this chapter cautions that historical representations on this topic are heavily influenced by the early Christian religion and western cultures. Perceptions of meaningful work have been affected by evolving social systems, values and technology. Therefore, these past views offer insight into only certain population groups at different points in time.

During the Protestant Reformation in the early 1500's Martin Luther promoted the view of the priesthood of all believers and that any form of work could fulfill one's calling. Thomas Carlyle shared similar ideas that all hard work was sacred and meaningful (Donkin, 2010). Other early Christian theologians promoted views of work related to meaning or meaningfulness. For example, John Calvin promoted work as adding pleasure, purpose and meaning to life. William Perkins believed work brought happiness when a person's unique calling was fulfilled in a job aligned with their particular gifts (Buszka & Ewest, 2020; Placher, 2005).

In later time periods key thinkers such as John Lock and Adam Smith shifted to a focus on work as creating wealth which deemphasized the spiritual connection to of work. This laid groundwork for the first industrial revolution and the economic theoretical mindset that work was a necessary evil to enable the masses to purchase goods (Volf, 2001). This mindset promoted the idea that work was not supposed to be meaningful except as a means to an end. According to thinkers such as Frederick Taylor and Henri Fayol, this "end" would maximize efficiency and productivity, with the promise of higher profits for owners and wages for workers. In contrast, there were those in the early 20th Century such as Walter Dill Scott who promoted the idea that the work itself must appeal to the individual and be considered useful and important, and that it was the employers' responsibility to do something about it (Donkin, 2010). Sociologist, Max Weber's book published in the 1930s promoted the Protestant Christian faith's influence on work and shared the idea that hard work was a morally good activity (Buszka & Ewest, 2020). During the 1940s, Peter Drucker promoted his vision of employee involvement through self-managed work groups. At this time, there were similar contributions by Mary Follet Parker and Elton Mayo, who ushered in what has been referred to as the Human Relations era in management theory (Donkin, 2010). This shifted the view of work in which workers were perceived as mere extension of machines, to acknowledging workers had needs, desires and influences in the workplace beyond their paycheck. This was followed closely by Hackman and Oldham's theory that jobs could be enriched or redesigned in such a way to enhance the inherent meaning experienced by the worker (Hackman & Oldham, 1976).

During much of the 20th century organizational loyalty and career progression within one or a few organizations for a worker's lifetime was also a source of meaning. Whether this meaning was in the form of a steady income and career progression, or by management designed methods of work, the organization was perceived as a primary conduit of meaningful work. However, beginning in the late 20th century to the present, where and for whom an employee works is becoming less important than the unique skills and knowledge a person possesses. This emphasizes finding meaning and fulfillment in self-development rather than organizational loyalty. Due to the expansion of the platform or gig economy, many workers are self-employed placing the onus for meaningful work on the worker (Allan & Liu, 2020).

The Importance of Meaningful Work

At the highest existential level, it is commonly accepted that people seek meaning in their lives. In Victor Frankl's book, *Man's Search for Meaning*, first published in 1946, work is described as one of the three primary sources of this meaning (Buszka & Ewest, 2020). Frankl's work shares that meaning

in life can be found by a deed or work one performs, an experience one encounters, or an attitude taken amid suffering. Analyzing Frankl's work, Uemura (2018) discusses how people can also discover meaning in life just by being together. This author suggests a fourth meaning in life as coexistent values which are "values realized by having meaningful relationships or togetherness with others" (p. 1). Therefore, considering most adults spend a significant portion of their waking hours performing work, and (at least historically) most work involves relationships of some nature, the topic of what makes work more (or less) meaningful is not insignificant.

This topic is also important because of the personal, organizational and societal outcomes resulting when meaningful work is present (or absent). Research shows that meaningful work is related to higher levels of motivation, engagement, job satisfaction, empowerment, productivity, and organizational commitment, lower levels of turnover, stress and absenteeism, increased willingness to participate in skills training and delayed retirement intentions (Ariely et al., 2008; Hackman & Oldham, 1980; Nikolova & Cnossen, 2020; Rosso et al., 2010). Why it is especially important to consider meaningful work during the current time period is because changes in different economic systems over the years have resulted in changed values and meanings associated with work (Allan & Liu, 2020; DeBell, 2006). As previously discussed, the concept of meaningful work has religious roots, but as societies become more secular, employees are turning to their work (or workplaces) to provide a sense of meaningfulness in their lives (Allan & Liu, 2020; Ashforth & Vaidyanath, 2002). For example, research indicates college students rate meaningful work higher than other values and that people are willing to accept significantly lower rates of pay in return for meaningful work (Allan et al., 2017; Allan & Liu, 2020; Hu & Hirsh, 2017). Current research indicates that younger workers are placing a higher value on a flexible work schedule, especially one that includes remote work options (Kossek et al., 2021). Workplace flexibility is cited as one of the top work and family benefits and has been shown to result in positive outcomes for both employees and organizations (Kim et al., 2023).

More recently, the topic of meaningful work has become of greater concern to academics, anthropologists, economists, engineers and businesspeople because of the increased automation and digitalization of work activities. There is concern that advanced technologies may negate some of the benefits shown to be related to meaningful work such as work engagement, commitment, job satisfaction and high levels of performance (Allan & Liu, 2020; Nikolova & Cnossen, 2020). As such, scholars stress the importance of determining ways to establish and maintain meaningful work in the rapidly changing workplace of the 21st century. This requires an understanding of how technology may present unique challenges and opportunities for those seeking meaningful work or organizations hoping to provide it.

TECHNOLOGY

When used in a contemporary setting, many would assume that technology includes the use of tools and equipment, especially computers, cell phones and the internet. These are, in fact, *advanced* forms of technology. However, technology that includes *all* forms can be described as, "knowledge-derived tools, artifacts, and devices by which people extend and interact with their environment" (Tornatzky et al., 1990, p. 11). This includes the most rudimentary technology (by today's standards) such as rubbing rocks together to create fire or the invention of the wheel, to the advanced knowledge and skill needed to create and understand AI. Technology and work are closely linked, with many key forms of technology developed to make work more effective and efficient. But these improvements do not come without a cost. For example, mass production technology which made goods and services more affordable and widely available also relegated workers to hours of what many would consider mindless, repetitious and boring work (Donkin, 2010; Terkel, 2011).

History of Technology

To provide an expansive and significant list of technological improvements within the context of work is a herculean task. This is especially true when acknowledging that this timeline is only a glimpse into the diverse types of technology that have impacted work over the millions of years of human existence. Schwab (2024) presents five time periods of technological advancement that provide an overview of key technologies that impacted significant shifts in work and society. These include Preindustrial, First Industrial Revolution, Second Industrial Revolution, Third Industrial Revolution and Fourth Industrial Revolution. The Preindustrial period ranges from the earliest forms of discovered technology through the late 1700s (Anastakis, 2022; Schwab, 2024). Examples include stone tools, spears, fire, magnetic compass, mechanical clocks, and the printing press. The first industrial revolution began in 1784 with the use of steam power, water, and mechanical production equipment through the development of the first compound microscope. The second industrial revolution arrived in 1870 with the use of division of labor, electricity, and mass production using assembly lines. The widespread use of electronics, information technology and automated production in 1969 marked the beginning of the third industrial revolution. According to Schwab (2024), the use of the cyber-physical systems of our current times such as AI, genome editing, augmented reality, robotics, and 3-D printing mark the beginning of the Fourth Industrial Revolution. Table 1.1, below, provides a summary of these time periods.

TABLE 1.1 Five Key Technological Time Periods

Time Period	Date	Examples of Technology
Preindustrial	3.3 million years ago to late 1780s	Hand tools and fire, through the first compound microscope
First industrial revolution	1784	Steam power, railways, steamboats, through mechanical production
Second industrial revolution	1870	Telephone, electric light, airflight, assembly line, through nuclear power and spaceflight
Third industrial revolution	1969	Personal computer, the internet, international space station and gene editing
Fourth industrial revolution	2016 present	Artificial intelligence, videoconferencing, 3-D printing and Chat GDP

Source: Schwab (2024).

It is important to note that this timeline reflects very disproportionate time periods. The use of stone tools to the development of fire for cooking took about 2.4 million years (Roser, 2023). Compared to the current age, much of the past technological change was incredibly slow and many generations used the same technologies throughout their entire lifetimes. In contrast, current generations have experienced technologies that were previously only depicted in science fiction such as space travel and videoconferencing with people across the globe. Also, not all regions and world economies experienced a transition in the use of these technologies in the sequential order described. A number of later developing economies have experienced two or more periods of development concurrently or jumped directly to some technology of a later period while not yet fully experiencing all of the advanced technologies of this or prior periods. This has been referred to as "leapfrogging" (Yayboke et al., 2020). A common example of this is the mobile phone revolution that put phones in the hands of millions of third world users without the need for their countries to develop the landline infrastructure. Therefore, the technology sequence summarized in Table 1.1 pertains more to economies such as those existing in the United States and the European Union.

There is much being currently written about the current Fourth Industrial Revolution especially because of this accelerated use of technology and the concern that new forms will be used without considering their overall impact. During this current time-period advances in machine learning and AI are accelerating automation in the workplace. With employers reducing labor costs and increasing productivity by using machines to perform essential work (Allan & Liu, 2020), the common fear is that robots will totally replace humans in many positions and industries. According to Gagne et al. (2022), a more realistic view of how humans will interact with this

technology will be one in which "people interact over dispersed networks using continuously improving communication platforms mediated by artificial intelligence (AI)" (p. 2). This will increase the use of remote work and control technologies across many different industries beyond the more traditionally mechanized (e.g. mining and manufacturing) to include others such as education, transportation, and healthcare. This leaves tasks less apt to be automated using algorithms such as interpersonal negotiation, creative problem solving, facilitating teamwork, etc. to employees and managers. Also, people today are changing careers faster and more frequently than before, with more entering contract or gig work, therefore, if a person doesn't find their work meaningful, they can change it.

Work and Technology: Challenges and Opportunities

Many have shared concerns about the future of work as we move forward in the Fourth Industrial Revolution. It has been noted that predicting the rate and nature of change during the current time-period is significantly more challenging than in the past due to the exponential rate of change (Morrar & Arman, 2017). Others caution that this rapid pace of change may push us into the next Industrial Revolution (5.0) without having time to clearly reflect on the impact of Industry 4.0 (Sharma & Singh, 2020). As previously mentioned, there are concerns about job loss due to new technological innovations such as the use of drones, AI and robots (Morrar & Arman, 2017). Even if there is no net job loss due to technology there is apprehension about greater inequality due to the creation of more low skill/low pay jobs with fewer middle-class positions available. This could, in turn, lead to social tensions. Growing use of technology and remote work also presents the possibility that human skills such as compassion and cooperation could diminish which could detract from the ability to form meaningful human connections so essential for mental, emotional and physical well-being (Schwab, 2024).

Naturally, there are benefits to this technology. As noted previously, the opportunity to work remotely or in a hybrid arrangement could be considered a major advantage by allowing more work life balance and flexibility, especially to young families with children. Like previous industrial revolutions, Industry 4.0 could raise global income and improve the quality of life for global populations (Schwab, 2024). Historical evidence has demonstrated that as demand declined for employment in labor-intensive sectors such as agriculture, mining and textiles, a wide variety of new job opportunities emerged in other sectors of the economy. Some examples include medicine, software, electronics, healthcare, finance, recreation, and personal care (Autor et al., 2022). Acemoglu and Restrepo (2019) refer to this