

Digital Workplace: An Introduction

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ABSTRACT

In the last few years, an increasing number of workers have shifted to a virtual work environment, also called a digital workplace. A digital workplace is an always-connected environment that provides instant access to employees at any place, at any time, and through any digital device. It goes beyond the limits of a physical office and provides for knowledge sharing and collaboration in new, effective ways. This paper provides an introduction on digital workplace.

KEYWORDS: *technology, digitalization, digital technology, digital workplace*

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INTRODUCTION

Technologies are necessary to meet the needs of the workers and enable them to access their workspace from anywhere, anytime, and on any device. Virtually all companies use technology to do business. Digital technologies are central to your interaction with the workplace. But simply using the technologies does not make your workplace a digital one. For example, having a digital printer in your workplace does not make it a digital workplace. Being able to print a document from three floors away is what makes your workplace digital.

As technology evolves, the digital transformation has reached a tipping point, with digital workplace adoption outpacing the consumer world. Advances in communications point to a future workforce that is more productive than ever before. As typically shown in Figure 1, new generation of workers are tech-savvy [1]. They are becoming increasingly feeling that their workplace is not smart enough and they are ready for a workplace that can accommodate their changing lifestyles. They now demand to work wherever and whenever they see fit. To accommodate this new way

of working manner, organizations are building digital workplaces that enable remote work and collaboration. This implies that digital workplace is now providing a digital environment that can be accessed from anywhere and at any time. The past few years have seen an explosion in the use of smart workplace technologies [2,3].

WHAT IS DIGITAL WORKPLACE?

Over the last few decades, technologies (computers, software, networks, mobile devices, the Internet, etc.) have changed the way we work. The place we work has been transformed dramatically in a few years. The workplace is no longer a physical space, an office, a desk. The modern workplace has gone through a massive transformation. As the workplace continuously evolves, the workforce can work, communicate, and collaborate in new ways. The acceptance of digital transformation by every person in the workforce is critical in its successful implementation [4]. A digital workplace is now the future of work, transformed into an always-connected

environment enabling instant access to every conceivable tool for an employee at any location.

A digital workplace is essentially a virtual, modern version of a traditional workplace. It is designed to enable employees to access work-relevant data and applications at any time and from anywhere, thereby providing the basis for easy collaboration with colleagues around the world. Whether in the office, in production, at home or on the sales floor, all members in your team have access to digital information and tools that make daily work easier [5]. The necessity a digital workplace in today's world can be attributed to social expectations, need for "new normal," flexible working hours, data management, availability of digital services, and changed workforce type such work from home and flexible working hours. Lightweight communication and collaboration tools are now commonly available in the consumer world. Today, the average worker has better information technology at home than at work. With many organizations switching to telework, the digital workplace has become the focus of attention. During the pandemic, organizations relied more on their digital workplace to support an overwhelmingly remote workforce.

Digital workplace involves the modernization of traditional offices, workflows, and collaboration through the adoption of digital technology. Such a virtual workplace plays a major role in engaging employees, ensuring efficiency, improving productivity, and maintaining work culture. It is also about doing more with less. Automation is crucial aspects of a digital workplace. It is almost impossible to measure the money saved via automation and real-time technologies. Your digital workplace strategy should align with your business goals. This requires making your digital workplace achieve Specific, Measurable, Achievable, Relevant and Timely (SMART) objectives, as illustrated in Figure 2 [6]. It will eliminate a guessing exercise.

Developing a digital workplace requires focusing your efforts on three major factors: collaboration, structured processes, and data management [7].

- **Collaboration:** This involves both formal and informal communication between each team and employee in a company.
- **Structured Processes:** This refers to establishing a secure, stable, and adaptive workplace infrastructure to support the business application.
- **Data Management:** This is the ability to effectively find and share information and knowledge throughout the organization.

These and other elements of digital workplace are depicted in Figure 3 [8].

FEATURES OF DIGITAL WORKPLACE

The digital workplace consists of all the technologies people use to get work done in today's workplace. A digital workplace solution requires an ecosystem of various tools and platforms working together. It is an ecosystem of technology and requires a network of connections a collaboration tool, and a digital hub. It is a connected environment providing access to everything employees need with the help of digital technology. Digital workplace typically include features for communication network, file storage, and content management. Any fully fledged digital workplace will have the following features [9]:

- **Virtualization:** A digital workplaces gives users end-to-end access to all resources they need to work remotely.
- **Collaborative Tools:** A digital workplace will feature file sharing, data sharing, and content collaboration tools.
- **Endpoint Management:** A digital workplace should feel seamless to the end user. Workers should be able to use their laptops, smartphones, tablets, and other devices at any time.
- **Strong Security Features:** Security, malware, and data breaches are all top priorities for many companies, especially if they have remote workers. Digital workplace accentuates security and privacy concerns due to blurring boundaries between personal and professional life.

EXAMPLES OF DIGITAL WORKPLACE

A digital workplace consists of all of the technologies teams use every day such as Zoom, Slack, Room booking, Desk allocation, Space utilization, Access control, and project management software [5]. Digital workplaces connect these resources so that everyone has access to information from anywhere, anytime. There are many players in digital workplace transformation. Microsoft with their complete suite of Office tools brings the employees to the workplace, followed by Google with their G-Suite of tools. However, the collaboration is done by Zoom which leads the real time collaboration market, Slack which leads the enterprise messaging market, and so on [10].

COMMON MYTHS ON DIGITAL WORKPLACE

The most significant myths that organizational leaders face about the digital workplace include the following [11]:

Myth #1: Digital workplace and digital transformation are the same thing: Digital business

transformation is the process of exploiting the latest digital technologies and practices to create a robust new digital business model. The digital workplace goes beyond the “digital” element alone and includes an employee-centric approach that considers not only the tools we use, but the people who use them.

Myth #2: Digital workplace technology adoption can be accomplished without cultural change: Although the pandemic made remote work and new digital tools a necessity, many organizations continue to organize work and make decisions the way they did when everyone worked together in an office. Organizations must embrace the notion that ideas can be generated and shared, decisions reached and issues resolved without meeting daily, either in-person or virtually.

Myth #3: Collaboration happens when people work together at the same time: Many leaders assume that the best collaboration occurs when employees are in the same place, even digitally, working on a common task. Yet research shows that synchronous and asynchronous modes of collaboration have a near equal impact on achieving team innovation and objectives.

Myth #4: Citizen developers cannot create meaningful technology work safely: When citizen developers build an app or automate a workflow, it tends to be met with skepticism. The myth is that meaningful technology work should be done only by IT, but the reality is that citizen developers contribute to key business objectives.

Myth #5: A single technology solution can serve as the new work hub: No single solution from any one technology provider is the complete answer. The new work hub will require different capabilities to meet diverse employee needs.

Myth #6 : Digital workplace is just a new name for the intranet: The two concept often get thrown around interchangeably, but they are not the same. The intranet has a crucial and central role to place in the successful management of the digital workplace, but it is part of a much wider ecosystem. One could build a successful digital workplace without an intranet at all.

APPLICATIONS OF DIGITAL WORKPLACE

The digital workplace has become an integral part of the work experience in many organizations today. Workforces in different industries and businesses have different needs. Since a workplace is a place where people go to work (e.g. office, factory, school, farm, hospital, restaurant), digital workplace applies to many domains such as business, workplace learning, human resources, manufacturing, management, agriculture, etc.

- **Business:** Digital workplace has found growing traction among the business community since the 2010s. Implemented properly, businesses are benefiting immensely from digital workplaces. Digital workplace unifies multiple business systems and provides a single access point to all of them .The digital workspace has become important for businesses in order to improve employee engagement and satisfaction, amplify employee efficiency, increase productivity, improve customer experience, increase revenue, attract new talents, encourage collaboration, embrace hybrid working, decrease operating costs, reduce time-to-market, and speed up innovation. Figure 4 shows the use of digital workplace in the business arena [3]. In terms of measurable business value, one should consider the following [6]:
- Revenue - Improves the running of the business from manufacturing to sales.
- Operational Costs - The right technology can cut time, travel, office rent, and waste.
- Productivity - Provide tools that improve current and create better business processes. Employees are more productive and satisfied.
- Innovation - Technology facilitates widespread communication and communities where ideas can be shared.
- Customer Experience - Employees being able to do their job efficiently and feel more engaged will naturally lead to better customer experience.
- Collaboration – This should be regarded as the nerve center of the modern digital workplace. Digital workplace allows employees to work together online in a collaborative way in real-time. They can communicate, collaborate, learn, and exchange files from anywhere.
- Communication - The modern worker prefers newer communication tools. Choosing the right communication tools will help target information to the right people.
- Employee Experience - Employees will enjoy their job more when they have the tools to do it to their best of their ability.
- Employee Engagement - Since employees are the heart of any workplace, including them in the planning phase of a major change is important.
- Talent Attraction & Retention - Digital workplaces can help attract and retain talents. A digital workplace provides the flexible work

environment that today's top talents have come to expect.

- **Accessibility** – It is important that remote workers are connected to the organization, thereby facilitating virtual collaboration.
- **Digital Workplace Learning:** Digitalization does not only transform workplaces and work, it also transforms social constructions for employees' interaction and learning at work, thereby changing prerequisites for working and competence. The digital transformation poses different requirements for continuous education, specifically for learning at work [12]. Research on learning at the workplace has grown significantly over the past few years. Digital learning is any set of technology-based methods that can be applied to support learning processes. Access to digital technologies has transformed learning at the workplace through cost-effective delivery modes, easy to access leaning resources, and flexible learning environments. The edited volume *Digital Workplace Learning* by Dirk Ifenthaler aims to provide insight into how digital technologies may enhance formal and informal workplace learning [13].
- **Human Resources:** The digital transformation of HR is an inevitable component in the modern workplace. Progressive human resources leaders now prefer workers who are digitally savvy, autonomous, and transparent in information sharing. HR is expected to deliver an integrated, digital workplace experience. HR's function has expanded beyond employee service. It now include digital workforce, digital workplace, and digital HR [14]:
- *Digital Workforce:* New management practices, innovation and sharing, and talent practices for a network-based organization.
- *Digital Workplace:* A working environment that facilitates productivity, modern communication tools and engagement, and work culture
- *Digital HR:* Digital tools and apps provide solutions, innovation, and experimentation to take place continuously.

BENEFITS

The potential benefits of the digital workplace are apparent and many. Interest in exploiting digital workplaces and smart offices is increasing. A digital workplace is the key to a dynamic workforce causing a high level of commitment and satisfaction of the employees. It will drive adoption rates, save time, increase efficiency, and improve the employee

experience satisfaction. It has enabled the shift to digital working:

Messaging tools, intranets, productivity suites, workplace mobility, etc. It has also enabled greater flexibility positively impacting work-life balance. It leads to fundamentally new and complex configurations of human and technology relationships that reshape the very nature of work practices [15].

Digital Workplace takes the workplace to an individual rather than the individual going to the physical place. Since the workplace goes to the individual, the biggest advantage for an organization is productivity improvement. Digital Workplace seems to be a boon for the people during the pandemic [10]. When coworkers are located at different places of the world, digital workplaces can bring them together and unify the employee experience. Digital workplace allows you to unify your workforce under a single mission, vision, and culture. Virtual workplaces offer increased accessibility, connecting previously isolated and remote workers, thereby connecting the disconnected. The digital workplace enables working from home and provides increased freedom, autonomy, and flexibility to choose how, where, and when to work. Future-proof digital workplace technologies like in-motion knowledge, embedded analytics, immersive technologies, Internet of things, virtual personal assistants, etc. are driving the success of companies through employee experience [16].

CHALLENGES

Although the digital workplace technologies afford workers considerable power and possibilities, they also come with a range of potential unintended consequences and potential dark side. Techno stress (computer anxiety), pressure and pace of digital work, information overload, monitoring of employee's work, privacy invasion, work-family conflict, and addiction tend to be the unintended negative consequences of digital work technology use. Technology can induce stress through its intrusion into people's working lives such as by monitoring of employees' work and use of technology. The pressure and pace of digital work is a stressor [15].

The task of creating digital workplaces to support workers is a great challenge for organizations. It is vital to monitor performance in real-time, and have the means to respond to problems immediately. If the digital workplace is not easy to use, no one will feel comfortable using it. Since most of the employees work outside of the office, there are security risks with managing multiple devices and networks. Digital workplace unavoidably comes with more vulnerabilities of cyber security issues and does offer

a chance for hackers as more people communicate digitally. Digital workplaces cause peopleless offices. As data is being moved to the cloud, there is a need to maintain high data privacy.

The majority of digital transformation initiatives that due to employee resistance. When employees do not understand how to use it, digital transformation is doomed. Companies may also risk losing employees to competitors. They need to keep up with the tech-savviness of younger generations while skilling up workers of older generations.

Other challenges include [17].

- The absence of immediate on-site technical support
- Feelings of personal isolation or social alienation
- Reluctance or difficulty embracing hybrid communication technology
- A reduction in motivation and team morale
- Difficulty in maintaining company culture

Due to these challenges, the adoption rate of digital workplace has been slow.

CONCLUSION

The digital workplace is basically the virtual, digital equivalent of the physical, traditional workplace. It is a conscious and ongoing commitment that combines a long-term vision and governing principles. Digital workplace technologies have become necessary due to increased remote and hybrid working. Today's work life is facing a major ongoing digital transformation, where the need to prepare for the unknown outcome is unavoidable.

The future of work is already here. Thanks to the necessity of remote working and the availability of technological resources. As a result, businesses that are yet to implement a digital workplace should do so. While new digital transformation often present significant challenges, businesses that develop digital workplace today will acquire a clear competitive edge in the future. Digital workplace is the future of work because it enables collaboration, remote working, real-time communications, and automation. More information about digital workplace can be found in the books in [13,18].

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Figure 1 New generation of workers are tech-savvy [1].



Figure 2 Specific, Measurable, Achievable, Relevant and Timely (SMART) objectives for digital workplace [6].



Figure 3 Elements of digital workplace [8].

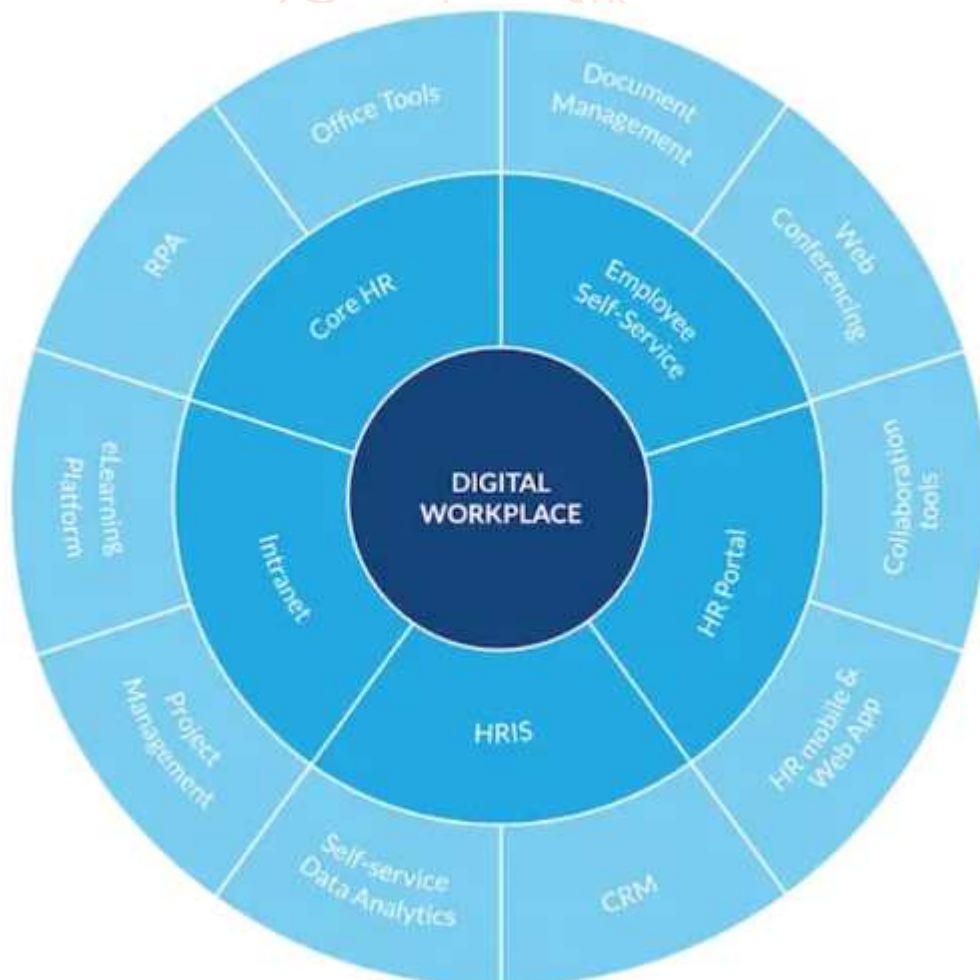


Figure 4 The use of digital workplace in the business [3]