Peculiarities of Cultural Practices in Digital Transformation

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Abstract: The concept of digital transformation and its key component “digital culture” are presented. It is emphasised that raising the status of digital transformation to the level of a key strategy is impossible without the formation of a community of practice, cross-functional teams, training of employees and partners, formation of platform thinking in order to institutionalise change and create a culture of digital transformation. The basic artefacts and phenomena of today's digital world are presented. Such a trend in computer technologies as generative artificial intelligence, the tools of which allow to radically change “digital transformation” into “generative transformation”, is highlighted. The use of the technocratic prefix “cyber” was justified to strengthen the emotional and expressive attitude to “cyberculture” and to analyse the specifics of digital culture more clearly. A serious risk of deployment of digital culture is noted, consisting in the problem of digital barrier or digital divide, i.e. the difference in access to its technologies, and manifested in digital inequality - the difference in the benefits derived from their use.

1 INTRODUCTION

Currently, digital transformation is seen as a basic strategy for the development of enterprises, ensuring their dynamic adaptation to changing business conditions and being a decisive factor to support their competitiveness in the market. Complementing the definition given by Vial (2019), digital transformation is seen as a continuous comprehensive process in which modern digital technologies aim to significantly change and optimise enterprise value creation, reduce costs by improving operational efficiency, implement and support business process innovation, manage organisational change, and provide timely support for strategic reorientation of activities.

2 LITERATURE REVIEW

There are many studies of digital transformation processes in various industries presented by the academic community.

Kim and Chung (2024) investigate the impact of digitalisation on the export performance of Korean manufacturing firms under digital transformation.

Chen's (2024) study investigates the relationship between digital transformation, executive incentives and executive education. Especially those executives who have a bachelor's degree and influence the adoption of digital transformation initiatives.

The study by Mauro and Noto and Prenestini and Sarto (2024) investigated the impact of digital technologies in healthcare organisations. Digital transformation technologies such as Internet of Things technology, artificial intelligence and machine learning, big data and business intelligence, cloud storage and computing, social media and blockchain were examined. According to the authors, blockchain was the least significant.

Qin and Yu and Ge and Liu and Zheng and Liu (2024) investigated the impact of digital infrastructure on the green transformation of urban economy. It is shown that digital infrastructure promotes green transformation primarily through pollution reduction, technology agglomeration and structural optimisation effects. Technological

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innovation and the integration of manufacturing and services are significant mechanisms.

Citterio and King and Locatelli (2024) investigated the impact of digital transformation on bank efficiency. It is shown that information technology and network efficiency are the key drivers of bank profitability.

How digital transformation affects corporate risk was investigated by Feng and Yu (2024). Evidence is presented that the impact of digital transformation on corporate risk becomes more pronounced as economic policy uncertainty increases and is more significant in high-tech firms. It is concluded that digital transformation, while increasing the level of corporate risk, nevertheless contributes to further growth in aggregate manufacturing productivity.

Senyo and Karanasios and Agbloyor and Choudrie (2024) presented a case study of government-led digital transformation at the national level. It analyses a government-led digital transformation process to address significant institutional deficiencies in a resource-constrained environment.

Wu and Chou and Chien and Lin (2024) studied the possible impact of different firm characteristics and production contexts on the progress of digital transformation in the manufacturing industry.

Gritt and Forsgren and Pandza (2024) provide a new perspective on digital transformation in the public sector and how it is shaped by everyday practices. It is shown that public sector organisations such as the police are in a state of liminal digital transformation, driven by a situation of uncertainty, ambivalence and blurred sociality due to the specific conditions of everyday practices.

Santarsiero and Carlucci and Schiuma (2024) conducted an empirical study of fostering digital transformation and business model innovation in tourism through innovation labs - innovative spaces for developing creative and critical thinking and demonstrating state-of-the-art digital technologies.

Yang and Xie (2024) presented a study of the effect of corporate digital transformation on opportunistic insider selling. It is observed that this effect is particularly noticeable for companies with high information asymmetry, weak corporate governance or powerful CEOs. It is worth noting that it is difficult to identify the principles of economic activity, ignoring or violating which would indicate economic opportunism.

Fan and Zou and Yang and Zhao (2024) conducted an empirical study on the impact of digital transformation of pharmaceutical enterprises on regional health equity and concluded that it can be enhanced by increasing financial flexibility and pharmaceutical data assets.

Thus, the term “digital transformation” reflects radical shifts and effects from the introduction of a new generation of digital technologies in all key sectors of the economy and social sphere. Despite the significant industry specifics and uneven implementation of digital technologies, all researchers and experts note the irreversibility of the digitalisation process even in the most technologically inert industries, and highly assess the importance of digital transformation for the formation of a new stage of the digital economy.

In the Russian Federation, the focus on digitalisation of the economy was officially announced in 2017. “The digital economy is not a separate industry, in fact - it is a way of life, a new basis for the development of the public administration system, economy, business, social sphere, and the entire society. The formation of the digital economy is a matter of Russia's national security and independence, and the competition of domestic companies” (Putin, 2017).

3 DIGITALIZATION AND AI

It should be emphasised that digital transformation is not just about upgrading the technological environment of an organisation using modern information and computing and networking technologies or any innovations that increase operational efficiency. Digital transformation is primarily a cultural and organisational transformation aimed at rethinking traditional ways of working, creating and developing a new culture and way of digital thinking.

However, it is worth noting that many organisations are focusing on the latest trends in Computer Science, in particular generative artificial intelligence (GenAI) - generative transformation - in terms of digital transformation. Indeed, already current advances in GenAI toolkit development are enabling a dramatic shift in digital transformation. Here, real-time analysis of big data (predictive analytics), including transactions, economic and market trends, consumer and corporate behaviour. Here forecasting and managing risk, especially in the financial industry (lending, investing, insurance). Here simplifying and improving customer service and personalisation. Here fraud detection and prevention - detecting anomalies (suspicious transactions) in the execution of transactions and much more.

Since the main advantage of GenAI is ease of access and speed of content creation, and the use of its tools is largely down to simple employee training, the possibilities of how and under what circumstances to effectively apply GenAI are endless.

Certainly, taking into account even just the basic technologies of digital transformation: cloud and edge computing, industrial Internet of Things, blockchain technologies, the latest generations of cellular technology (5G and 6G), immersive technologies (augmented, virtual and mixed reality) and the meta-universe they support, etc., there is no alternative to the widespread introduction of systems and platforms based on Artificial Intelligence in all spheres of human activity, especially in technology and business, in the next few years.

4 INTRODUCING A CULTURE OF DIGITAL TRANSFORMATION

As noted above, raising the status of digital transformation to the level of a key strategy is impossible without building a community of practice, cross-functional teams, training employees and partners, forming a platform mindset to institutionalise change and creating a culture of digital transformation (TechTarget, 2024). Cross-functional digital transformation is not only a technical challenge, but also an organisational and cultural challenge. It is the digital culture in a company that shapes its strategy and development, not the other way round. Experts claim that more than 60% of Russian CEOs consider the lack of necessary competences and digital culture to be the main obstacles on the way to digital transformation.

Modern life is a life in the digital world. And it is impossible without knowledge of modern information-computing and information-communication technologies and the ability to use them effectively in professional activities and at home. The basic artefacts of the modern digital world are computers, laptops, tablets, smartphones, various online services of the Internet, as well as digital platforms and tools for collaboration and corporate content management.

Due to the fact that such a list of artefacts is due to the development of computer technologies, the term “digital culture” is replaced by the term “cyberculture” by some researchers. The technocratic connotation of “cyber” undoubtedly strengthens the emotional and expressive attitude to the subject, allows us to analyse the specifics of digital culture more clearly through artefacts and phenomena, but the essence remains the same - a critical digital comprehension of the world around us and a systematic study of transformations in culture due to the widespread use of digital technologies.

The development of computer technologies has a huge impact on the life of society, on the creation of new types of communications, on the development of public consciousness and culture. Digital culture refers to the behaviours, practices and values that develop as a result of the use of digital technologies. It is the practice of working with modern technical devices and digital services that is the key to the formation of skills, abilities and knowledge about the peculiarities of information flows in professional activities, search and extraction of necessary information from various sources, its analysis and effective professional use for technological development. It is important to observe the principles of information security and ethical behaviour in the digital environment.

In everyday practice, while using the ecosystem of digitalisation tools, digital culture is manifested through various activities. Communication and collaboration use tools that enable collaborative work (employee engagement) with flexible schedules and decentralised decision-making. A culture is emerging that is focused on working with customers through digital channels in real time, allowing for personalised interaction with them and taking their interests into account. Human evaluations, rewarding and recognising employee achievements, corporate celebrations of digital successes and more are not forgotten.

At the same time, the process of immersing traditional culture in the digital environment forms not only advantages, but also new risks inherent to digital culture. For example, over-reliance on digital tools, leading to operational vulnerabilities, especially in the event of technical problems or failures. Fatigue from constant digital connectivity, leading to impaired employee concentration, lower overall productivity or even. professional burnout.

A more serious risk of deploying a digital culture is the problem of the digital barrier or digital divide, i.e. the difference in access to its artefacts. It is not that employees in the organisation are not digitally savvy. All employees, regardless of their level of digital literacy, should be included in the digital transformation process and have access to the necessary education and training. And in the difference in the accessibility of technology, manifesting itself in digital inequality (difference in

the benefits derived from its use), and therefore deepening the social inequalities of society. According to the Okinawa Charter of the Global Information Society (kremlin.ru, 2000) – "all people everywhere, without exception, should be able to enjoy the benefits of the global information society".

Thus, an integrated systems approach to understanding digital transformation enables both business and non-profit organisations (including government agencies) to achieve advantage and success in their development - higher revenue and more profit or better stakeholder satisfaction.

5 CONCLUSIONS

Digital transformation is an ongoing continuous strategy aimed at solving business problems with qualitative changes in business processes and ways of carrying out economic activities (business models) as a result of the introduction of digital technologies, and leading to significant socio-economic effects. Digital transformation is not a one-off project and does not have a single end point. It requires many ongoing initiatives involving investment in new technologies, new skills, a renewed workplace culture and organisational restructuring.

At the heart of digital transformation is a digital culture that aims to create the mindset, behaviours and values an organisation needs to fully integrate new technologies and ways of working. Digital culture cultivates a mindset that is more open to change, smoothing the processes of digital transformation. It also enables organisations to better cope with digital disruption when new digital technologies, such as Artificial Intelligence, require adaptability from the business. Digital culture is not a linear process of acquiring a new quality of a person, but a fundamental leap in development, where highly developed modern information technologies are used, leading ultimately to the formation of an independent and original thinking individual, armed with solid digital field skills and digitally oriented information perception.

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