

## THE TRIANGLE OF HARMONIOUS DEVELOPMENT OF A MODERN ORGANIZATION – AN INTEGRATED APPROACH

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**Purpose:** The aim of this article is to underline and explain the need for comprehensive scientific reflection on the functioning model of organization based on two factors: work and family life with a third element – technology.

**Design/methodology/approach:** The article is a review and discussion. The conclusions presented in the article are the result of non-reactive research based on the analysis of secondary sources - scientific literature. The method of scientific inference was inductive. Sources of information used to write this article are interdisciplinary in nature: in the field of management sciences, sociology, psychology and ethics.

**Findings:** The value of the analysis is the attention focused on an attempt to maintain a balance between all components, i.e. working time, family/private life and technology (tech-life balance). The authors prepared a model in the form of a diagram of overlapping areas and their characteristics that can be used in subsequent empirical studies. For this purpose, the most important theoretical approaches present in the literature of various scientific disciplines concerning, among others, the concepts of work-life balance, sustainable digital footprint and tech-life harmony were conceptualized.

**Research implications:** Future research should consider examining the impact of the highlighted factors on organizational development, providing a more comprehensive analysis of the impact of individual areas on entrepreneurs' decisions.

**Originality/value:** This article presents a holistic perspective of conscious management within the distinguished areas of a harmoniously developing organization. Entrepreneurs can benefit from implementing a holistic management strategy that can improve business efficiency, encourage innovation, and improve coping with business challenges.

**Keywords:** work-life balance, technology, sustainable digital footprint.

**Category of the paper:** Conceptual paper.

## 1. Introduction

The article was inspired by theoretical reflection on the changes taking place in organizations in the context of the contemporary development of new technologies. The authors would like to pay special attention to the concepts of *tech-life balance*, *work-life balance* and *digital footprint*. All these approaches concern the dilemmas of the socio-ethical functioning of modern organizations. Accelerating changes in the labor market and the growing importance of civilization competences mean that a person as a single entity with specific cognitive abilities is not able to control all technological advances. This is also reflected in their mental state and family life. The need to acquire new skills in operating even simple devices or to use the help of professionals leads to various consequences in the form of further social problems and frustration. On the other hand, the emergence of creative solutions, new companies, new products, as well as new jobs and professions is observed. The main goal of the article will be to comprehend the functioning model of organization based on two factors: work and family life with a third element – technology. Authors will propose their own model of harmonious development of an organization considering the above-mentioned factors and suggest specific research areas assigned to them. The article is a review and discussion. The conclusions presented in the article are the result of non-reactive research based on the analysis of secondary sources - scientific literature. The method of scientific inference was inductive. Sources of information used to write this article are interdisciplinary in nature: in the field of management sciences, sociology, psychology and ethics.

## 2. Methodological approach

The multidimensionality of issues related to human-organization relations determines the methodological approach and scientific methods. The dynamic entry of technology not only into production, but above all into management and our private lives has led to the need for an interdisciplinary synthesis of the achievements of social, humanistic and natural sciences. Borrowing scientific achievements and engaging cybernetics has also proven necessary. Nowadays, quantitative research is commonly used in researching and analyzing social and humanistic aspects. This translates into a very rigorous approach to research methodology. However, it should be remembered that humanities and social sciences use the methodology of researching ideas, values, beliefs, stereotypes and practices related to specific social and cultural phenomena. They are located on the border between science, social perception of technology and popular culture.

For exploration, the study uses methods typical of ethical reflection, guided by the idea of synthesis, similarly to Alvin Toffler: "Without fully grasping the whole phenomenon, we cannot understand the clash of powerful forces in the modern world; like survivors we try to navigate without a compass and a map among dangerous reefs during a storm. In a highly specialized culture, in which everyone is absorbed in the detailed analysis of scattered and huge amounts of data, synthesis is not only useful, but also crucial" (1986, p. 24). The starting point of considerations around the harmonious development of an organization, together with such a constructed methodological freedom, is an attempt to combine selected problem issues. The first important dimension will concern the social and ethical aspects of the relationship between family life - work - technology - with particular emphasis on the dimension of pragmatism, trust and fascination with new technologies. The second dimension of the analysis will include determining research needs emerging as conclusions from the considerations conducted so far on the still undeveloped research areas related to harmonious development. In our opinion, the empirical use of the proposed model can inspire not only researchers from the area of social sciences and humanities, but also sensitize researchers from the area of exact sciences.

### 3. Main findings

Work-life balance is a key element in maintaining harmony and well-being of an individual. This is becoming the subject of an increasing number of scientific studies and empirical analyses, also by practitioners. This has its scientific implications in terms of theories being developed and research topics being undertaken. Contemporary changes in the labor market are characterized by dynamic technological progress, which is associated with the emergence of new challenges in the context of organizing working time and the employee's private space. In the context of the holistic development of an individual, *work-life balance* is fundamental for maintaining mental health, motivation and overall life satisfaction.

In turn, in the *tech-life balance* concept, technology is to be understood not only as a tool supporting productivity, but at the same time it cannot be a factor increasing the mental burden of employees. Technology undoubtedly increases operational efficiency and allows for time flexibility. On the other hand, however, the blurring of the boundaries between the professional and personal spheres is observed. Therefore, the key task of employers is to implement strategies and policies that support maintaining a balance between work and personal life, which leads to an improvement in the quality of life of employees and an increase in their involvement in achieving organizational goals.

From the employer's perspective, the issue of the *digital footprint* generated by employees is also becoming particularly important. In the era of intensive digitalization, almost all professional activities leave a trace in the form of data, which is associated with the need for responsible data management and protection of employee privacy. Employers' responsibility includes not only ensuring compliance with legal regulations on data protection, but also shaping digital social responsibility policies that consider the mental well-being and protection of the integrity of employee privacy. All these issues are analyzed within their own areas.

Based on the analyses of the most important threads characterizing individual approaches, it is time to propose a new integrated model for the harmonious development of modern organizations.

### **3.1. Work-life balance**

Recent dynamic events in socio-economic life show the increasingly significant impact of various types of crises on the approach of employees to their professional duties. Due to global changes and experiences such as the Covid 19 pandemic, there is a need for a balanced approach to work, which is why the concept of work-life balance has gained popularity. Work-life balance is defined as achieving satisfying experiences in various aspects of life that require different resources, such as energy, time and commitment, and these resources are distributed across all areas of an individual's activity, from professional, through family, to recreational, religious and others. Work-Life Balance is the ability to combine work with other dimensions of a person's life (such as family, personal interests or social activity). We talk about balance when professional work does not take place at the expense of private life and vice versa. This is made possible by the ability to manage time spent on work and outside it "by activating benefits, organizational changes and special intervention programs" (Kubicka-Daab, Manikowski, 2003, p. 234). The origins of WLB can be traced to the 19th century labor movement seeking to regulate working conditions (including the prohibition of child labor, the introduction of minimum wages, and limits on overtime). However, it was the mass entry of women into the labor market in the 1960s and 1970s that gave rise to research on work and family, leading to the formulation of the WLB concept and models. In the 1980s, spillover theory, compensation theory, and conflict theory emerged, emphasizing the separation of work and family (segmentation), and in the 1990s, attention shifted from working mothers (and their support) to the organization and all its employees, including issues of stress, health, absenteeism, retention of valuable employees, morality, egalitarianism, job security, labor market flexibility, and global competition. It was then that WLB began to be seen as a task not only for the individual but primarily for the professional organization. The basic instruments have become: flexible working hours, flexible workplace, job sharing, holidays, employee support, etc. WLB began to be justified by the theory of boundaries and borders, enrichment theory, facilitation theory, instrumental theory, ecological systems theory, ladder theory or compatibility theory (Khateeb, 2021, pp. 29-33). In the American model, WLB is based on the

employer's voluntary action aimed at attracting and retaining valuable employees by creating working conditions that enable effective work and development. In the Western European model, the employer's activity is regulated by legislation, and the national legislator guarantees and enforces a minimum of social security for employees (Borkowska, 2010, p. 18). WLB policy evolves along with economic, demographic and social changes. Initially, it was aimed at separating private life from work in order to limit the impact of work on the private life of employees. In the next phase, the need for a harmonious combination of professional and family life through work-life and work-family programs was emphasized. With the development of the Internet and intelligent technologies and the development of e-business and e-commerce, we are dealing with the third phase – tech-life (Gajdzik, 2018; Mahajan, Guleria, 2022).

Conclusions regarding work-life balance, in the context of technology, emphasize the need for well-thought-out strategies and solutions that make it easier for employees to reconcile social and professional roles (FOB, 2020). The most important issues include moving work home, even remotely, which can lead to difficulties in separating these two spheres - private and professional life. One of the main challenges remains time conflict, when professional duties clash with the demands of private life. Digital technologies, although they offer flexibility, can also lead to being constantly "online", which results in overload and burnout. Conscious time management and limiting availability after working hours are necessary. Many studies also emphasize conflicts related to combining professional and personal roles. Employers introduce programs to support work-life balance - in practice, however, achieving balance requires the involvement of both employees and employers, including through the use of pro-family policy instruments and friendly working conditions (Žak, 2017). Appropriate time management and a clear division of responsibilities in the family can contribute to achieving harmony between these spheres. The work-life balance approach proposes implementing legal solutions that make it easier to maintain this balance, such as flexible working hours or additional parental leave. The introduction of flexible forms of work that take into account the needs of employees can help build a positive atmosphere in the workplace and promote long-term employee well-being. Employers, by taking care of the mental health and well-being of employees, can increase their engagement and loyalty, which affects the organization's results and employee satisfaction. The development of digital technologies should support, not disrupt, work-life balance, which is why strategies are necessary to limit the negative effects of being online outside of working hours and allow employees to regenerate.

### **3.2. Tech-life balance**

Socio-economic development has been approached by various researchers, considering the industrial and post-industrial eras. This happened for many decades. Recently, however, changes known as Industry 4.0 have been taking place. The increasing automation and robotization of processes, the use of Internet information and the complexity of modern

technologies result in changes in productivity potential. In the first decade of the 21st century, there was a clear increase in the number of smart devices, changes in the structure of production plants towards Smart factories and an increasing number of users of smart home equipment. A characteristic feature of Industry 4.0 is the combination of robots equipped with artificial intelligence elements with mobile technology already known in the information society.

The history of the industry so far proves that technologies have already revolutionized the socio-economic conditions three times. It is enough to refer to the consequences of James Watt's invention (18th century), when his steam engine replaced the work of human muscles by powering the production machines of textile plants in England, through the industrial revolution based on the use of electricity, to new technologies that resulted in the implementation of automatic production based on programmable drivers and computers (Kaczmarek, 2020). Global forecasts regarding the development of Industry 4.0 are a premise for implementing new work patterns and thus changing the paradigm of the concept of human resources management. Robots will increasingly become not only assistants cooperating with employees but will also act as digital/virtual employees themselves. The new reality raises problems in planning, organizing, motivating and controlling staff that have not been noticed until recently. A new variable is introduced into the already known system, which significantly determines the implementation of an innovative approach. Human Resources departments will no longer only be responsible for the recruitment and selection of appropriate employees – often talents, their training and care for appropriate employer-employee relationships. The new reality requires the correct definition of technological potential and the possibility of implementing new, intelligent technologies and finding a balance with employee well-being. A particularly dramatic example of such actions was the time of the Covid-19 epidemic and the lockdown of the economy. Such a crisis has shown that an enterprise is 4.0 only when it manages to connect and integrate all activities in the supply chain and people management. It was necessary to change the nature of the work performed to a greater share of remote work or to create virtual teams (Kamińska-Berezowska, Suchacka, 2022). This made it necessary to provide employees with the opportunity to acquire the necessary digital competences. This was, of course, associated with certain difficulties depending on the nature of the work performed so far. One of the most interesting ideas that clearly combines the concept of Industry 4.0 with the need for possible retraining and adaptation to changes is the issue of digital social responsibility. The sources of this concept can be found within the corporate social responsibility (CSR) trend. In addition to the obvious image goals that accompany these activities, there is a growing trend of authentic digital responsibility. It translates into shaping and expanding employees' awareness (Suchacka, 2020). As part of the steps taken, programs are created to popularize this responsibility in the field of technologies used and securing digital data, training programs for employees preparing them for difficult situations in how to deal with digital information, as well as taking the concerns of customers and employees seriously.

According to Currie and Eveline (2011), the boundary between work and private life has been blurring since the 1980s, and the development and dissemination of technology make these boundaries more fluid and permeable. Technology increases work efficiency and productivity of working people, but also challenges work-life balance (Borkowska, 2004). Technology makes working people more accessible anytime, anywhere, anytime, and lives under time pressure and stress (Teagarden, Meyer, Jones, 2008). These changes affect employees not only individually, but also affect society and social groups (Wajcman, 2008). The interaction between technology and work life can take many forms: it increases employers' expectations, resulting in the feeling of constantly being on duty (Towers et al., 2006) and working in a private living space (Hislop, Axtell, 2007).

The existing literature on the subject has few studies considering the importance of new technologies in shaping human activities in the private and professional spheres (Gajdzik, 2018; Mroczkowska, Kubacka 2020; Mahayan, Guleria, 2022; Popovici V., Popovici A.L., 2020). The scarce research material makes it difficult to conduct comparative analyzes or formulate constructive conclusions, especially since there is a lack of clarity both at the conceptual stage and when developing conceptual models. Moreover, existing research brings contradictory conclusions regarding the consequences of the increased impact of technology on work and family life (Currie, Eveline, 2011; Fernback, 2018; Heijstra, Rafnsdottir, 2010). Some studies focus only on certain areas of professional work: academia (Adisa et al., 2022; Heiden et al., 2021; Potter et al., 2022), private organizations in the electricity sector (Mahajan, Guleria, 2022), banking sector (Rahaman et al., 2020) or health care (Chen, 2024). The resulting practical implications are interesting in the context of the specific nature of work but cannot be the basis for generalization to other employment sectors. The dynamics of technological change and its social effects are extremely difficult to grasp (Khallash, Kruse, 2022). The essential element of this transformation is a well-educated person who implements modern management methods, leading to building a people-focused organization, adopting a systemic approach and building a friendly, goal-oriented work environment. Another interesting concept related to this topic is the techno-stress that employees may experience. The sources of techno-stress are categorized by different researchers in various ways (Dragano, Lunau, 2020, p. 408). However, the most common causes of techno-stress include:

- techno-overload – intensifying the pace of work and extending the time of performing professional duties;
- techno-invasion – reaching users at any place and time, which may contribute to blurring the boundaries between work and other domains of life;
- techno-complexity – cases where the complexity of ICT poses a challenge to employees; this is accompanied by a feeling of incompetence and the need to devote time and effort to learning and understanding various aspects of ICT;

- techno-insecurity – feeling of threat of losing one's job to new technologies or fear of better qualified employees;
- techno-uncertainty – a sense of uncertainty due to the ongoing development of ICT – knowledge quickly becomes outdated and must be constantly supplemented with current solutions (Ragu-Nathan, T.S., Tarafdar, Ragu-Nathan, B.S., Tu, 2011, p. 310).

To deal with these issues wisely, it is important to analyze development from the employee's perspective. Kagerman and his colleagues noted that it is necessary for companies to use a sociotechnical approach in which employee participation in workplace design is crucial (Kagerman et al., 2013). Without employee participation in creating a new digital work environment, the desired results may not be achieved at all. The role of humans in the context of new technologies is changing. Unlike previous concepts, such as CIM (Computer Integrated Manufacturing), Industry 4.0 does not aim to create factories in which people will be replaced by robots. Industry 4.0 makes factories a better place to work. People are invariably the most important, and thanks to new solutions they will receive much greater support than before. However, employees very often perceive new technologies only through the prism of threat and job loss, which constitutes a huge barrier to the implementation of innovations (Grebski, Mazur, 2020).

It is worth emphasizing that, in parallel to the activities undertaken by business practitioners, researchers from various disciplines increasingly often point to the responsibility of broad elites and scientific authorities for the process of raising awareness of potential threats that may completely change our civilization due to technological changes. The perceived, disturbing trends and presented worst-case scenarios lead to the desire to control the development of technology. F. Fukuyama wrote about it at the beginning of the 21st century, pointing out the fundamental difficulties: "The only way to control the spread of technology is to create international agreements on technical restrictions, which are very difficult to negotiate and even more difficult to enforce. In the absence of such international agreements, any country that imposes regulation on its territory will simply help its competitors" (Fukuyama, 2004). Attempts are being made to systemically regulate and support people unemployed through automation and the development of new technologies. However, broader systemic solutions on a global scale are necessary. However, various analyzes show that there is no uniform approach to this issue by state governments due to their different political goals (Digital Poland Foundation, 2024). The integrity of actions taken at various levels remains a problem. However, it can be assumed that the reason is differences and degrees of advancement in the use and understanding of modern technologies. Hence, there is a need to investigate the understanding and implementation of the concept of tech-life balance and to identify problem areas in its practice.

There is therefore a justification for examining whether and how it is possible to maintain a balance between the professional and private spheres in the context of the use of new technologies in both spheres of life. Introducing the concept of tech-life balance into research



will allow for the inclusion of new, previously unanalyzed factors, but will also allow for the consideration of the perspectives of members of different sectors of the economy on the impact of technology on their work and life.

### **3.3. Sustainable digital footprint**

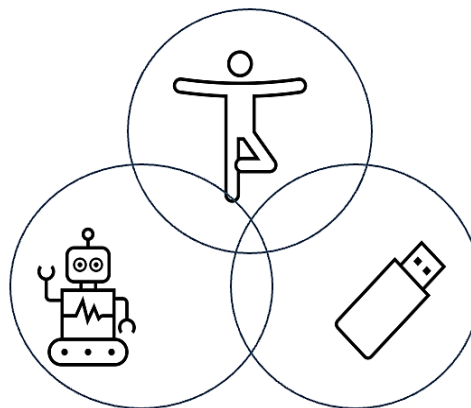
With the development of information systems, the Internet and various digital platforms, employees using them while performing their professional duties leave behind digital traces. This concept appeared in English literature in the early 2000-2010s (Anjewierden, Efimova, 2006; Girardin et al., 2008; Roberts, 2000; Weaver, Gahegan, 2007). In Poland, this coincided with the emergence of the term "information management". Digital traces can be analyzed with respect to who creates them and what they are. Therefore, a digital trace is certainly created by an individual. Although it can also be created by a group. It should be remembered, however, that it is a specific person who uses a device that allows for recording a digital trace. Considering the objective dimension of a digital trace, it can be defined as information combined with metadata. This may include data such as login traces, search history, e-mail messages or activity in company applications. The digital footprint can support team management by allowing for monitoring work efficiency and identifying potential issues, such as those related to information flow. At the same time, it also poses a significant challenge to the privacy of employees, who may feel pressured to monitor their activities. In the context of security, the digital footprint can be a key factor in identifying incidents, such as attempted unauthorized access or security breaches (Golik-Górecka, 2024). Companies must therefore ensure that this data is properly secured to prevent its leakage or unauthorized use, which could expose the company to financial and reputational losses. Another problem is the risk of cyberattacks, which can be directed at employees and use their digital footprint to gain access to sensitive company data. An important aspect is balancing control over employee data with maintaining their privacy and compliance with legal regulations, such as GDPR. Therefore, companies often implement data protection policies and training to increase employee awareness of threats. Employees' digital footprints in companies are becoming significantly important for their well-being and mental health. These traces, understood as data generated by online activity, can be the basis for understanding their behavior, interactions and preferences. Analyzing digital traces allows us to draw conclusions about the work style, efficiency and mood of employees, which can be useful in creating strategies supporting their mental and physical well-being. However, collecting this data raises some ethical controversies. On the one hand, it allows us to identify areas in which employees may need support, such as stress management or building health habits. On the other hand, excessive control or monitoring can lead to employees feeling negatively about the invasion of their privacy, which can lead to increased stress levels and feelings of surveillance. Research indicates that responsible management of employees' digital traces can support their health and productivity, especially if employees are aware of and consent to such activities (Gaweł, 2022). In this context,

it is crucial to develop digital education that will enable employees to better understand their digital traces and the potential consequences of their online activities. Managing digital traces can also support employee well-being by helping them maintain a balance between their private and professional lives. Digital traces can provide information about work habits that may be related to overload or lack of engagement. Analyzing such patterns can help managers take action to improve working conditions and overall well-being.

Introducing transparency policies and employee control over their own data can lead to increased trust and a sense of autonomy. Employees who have an impact on how their data is used can feel more valued and less susceptible to the negative effects of feeling supervised. This balanced approach is increasingly emphasized by HR and IT professionals.

#### 4. Conclusion - new integrated approach - the triangle of harmonious development of a modern organization

Considering the discussed concepts: *work-life balance*, *tech-life balance* and *employee digital footprint*, an integrated model can be created, defining research directions that could help understand the impact of each of these elements on the development of the organization and on the well-being of employees. (Figure 1).



**Figure 1.** New integrated approach – the triangle of harmonious development of a modern organization. Source: own elaboration.

The model is the result of overlapping areas and a proposal presented by the authors for further analysis. I do not have the character of a scientifically proven model. It is rather a loose suggestion submitted for consideration. The proposed directions of research result from the conclusions drawn from the analysis of the literature presented above.

There are several arguments in favor of conducting this type of research. First, the need to improve employee well-being and engagement is increasingly being taken into account by entrepreneurs. There is a need to identify factors that affect stress, burnout, and digital fatigue.

By understanding these factors, organizations can implement solutions and policies that support the mental and physical health of employees. The result is increased job satisfaction, which translates into higher team efficiency and engagement. Research in this area allows us to understand how organizations can promote a balanced approach to technology that increases productivity but does not lead to digital overload.

**Table 1.**

*Potential research directions within the integrated approach of the triangle of harmonious development of a modern organization*

Conceptions	Integrated research directions	
	research topic	explanation
Work-Life Balance	the impact of flexible working hours and remote work on work-life balance	research on how different work models affect employees' mental well-being and efficiency
	the importance of organizational support	analysis of the impact of organizational policies (e.g. additional days off, support programs) on the quality of work-life balance and employee engagement
	long-term effects of hybrid work	analysis of the impact of different forms of work on the quality of social relationships, stress levels and long-term career development of employees
	the role of managers and leaders in creating a work-life balance culture	study of supervisors' attitudes and their impact on employees' attitudes towards work-life balance
	work-life balance and generational differences	analysis of different expectations related to work-life balance among the Baby Boomer, Gen X, Millennials and Gen Z generations
Tech-Life Balance	the digital fatigue phenomenon	a study of how frequent exposure to technology affects employees' mental and physical well-being.
	the effects of "always-on"	an analysis of the consequences of constant availability (e.g. via email, instant messaging) on stress levels, burnout, and personal life satisfaction
	the role of "no after-hours" policies	an examination of how implementing policies that limit off-hours work affects employees' tech-life balance and work-life balance
	screen time and productivity	an analysis of how screen time affects employees' work efficiency and quality
	perception of breaks from technology	an examination of how organizations can promote technology breaks and what this means for long-term employee engagement
Sustainable digital footprint	the impact of employee activity monitoring on their sense of privacy and job satisfaction	research on how different levels of monitoring affect employee trust and comfort
	the ethics of managing a digital footprint	analysis of employee perceptions of the ethical boundaries of data collection at work, as well as the consequences of their use
	the impact of a digital footprint on work efficiency	analysis of whether digital data analysis can support or hinder task and process optimization
	employee awareness of their digital footprint	analysis of how well employees understand what data they generate and what the consequences of this phenomenon are
	the impact of data transparency on employee relationships	analysis of how an organization's openness about its digital footprint and data policy affects employee trust and engagement

Source: own elaboration.

Topics related to the ability to harmoniously combine professional and private life and to create a balance in the use of technology, issues of preventing digital addiction and technology fatigue will certainly be interesting threads of many research works in the coming years. The issues of digital generation of traces by the employee are also added to this. The introduction of research from these areas can help create more harmonious, balanced working conditions and in the management of organizations that care for the well-being of employees in a diverse and digitalizing environment.

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