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# Efficiency of Technical Assistance on Psychological Well-being and Work-life Balance: A Secondary Exploratory Qualitative Research

AARUSHI RAJPUT<sup>1</sup>, NEELAM PANDEY<sup>2</sup>, SONAKSHI RUHELA<sup>3</sup>



#### **ABSTRACT**

**Introduction:** The effects of technical support on psychological health and work-life balance have long been a source of discussion. By examining and reviewing the research on technology and its effects on these factors in four major domains-education, organisation, health, and gerontology-this study seeks to investigate this problem.

**Aim:** To understand the impact of technical assistance on psychological well-being and work-life balance.

Materials and Methods: The data were collected online by reviewing relevant research papers from the past 22 years, from April 2000 to August 2022, at the Amity Institute of Psychology and Allied Sciences, Amity University, Noida, Uttar Pradesh, India. The process of data collection began in June 2023 and took two months (until August 2023) to review, refine, analyse, and form conclusions based on the obtained results. Qualitative exploratory research was carried out by reviewing publications about technology and its effects on the specified variables in four major domains-education, organisation, health, and gerontology. To explain the patterns of connections between the variables, the research utilised content analysis.

Results: Themes were generated based on the content that was obtained from the extensive review of the articles in each sector. Four themes in each sector were obtained. In the Educational Sector, "Addictive Behaviour", "Enhancing Support", "Learning Outcome", and "Supervisor Support" were obtained; In the Organisational Sector, "Social Capital", "Social Media Fatigue", "Schedule Flexibility", "Remote Working" were obtained; In the Health Sector, "Interventions for Improvement", "Digital Depression", "Injury and Health Support", and "Digital Divide" were obtained; and in the Gerontology Sector, "Technological Readiness and social exclusion", "Technical Knowledge", "Social Interaction and Communication", and "Enhancing Independence" were obtained, accounting for both dimensions, namely psychological well-being and work-life balance.

**Conclusion:** The study's conclusions imply that rapid technological advancements have both beneficial and detrimental effects on several facets of human functioning. It can also be said that attempts to apply the newest technology to solve human problems efficiently and effectively can lead to the best possible use of technology. The optimal use of technology can help mitigate the negative impacts and maximise the positive impacts.

# Keywords: Education, Gerontology, Health, Organisation

# INTRODUCTION

Advancements in technology have improved the quality and efficiency of output in every facet of life. It has altered the modes of working in a way that provides various opportunities to work from multiple locations and induces flexibility in working schedules for adaptive performance [1].

#### **Technological Assistance**

The term "technological assistance" in this paper refers to aspects of digitalisation, such as internet use, digital instruments, technological advancement, and the Internet of Things [2]. Technology has made our lives more convenient, efficient, and simpler. It has made information access easier and communication better through the use of social media. For organisations, technology has made it easier to make decisions by gauging the risks and opportunities. Optimisation of resources by developing novel innovative strategies is another aspect of technological advancement in the integrated health sector. Improvement in technology has improved worklife integration, meaning that it has induced flexible working and ultimately improved the quality of work [3]. The downside of digitalisation could be decreased autonomy due to increased dependence on technology. The internet can become a parasite of human creativity, making individuals slaves to its use. The cost of efficient and effective management to guarantee desired results could be huge, as it utilises the latest technology. Antiquated technology and strategies have been replaced with progressive technologies, equipping organisations with promising outcomes but also leading to massive layoffs.

Previous research studies in this area suggest that technology plays a key role in determining aspects of human functionality [4]. One research project conducted by Sánchez Ruiz LM et al., revealed that the utilisation of digital resources on various educational platforms led to a noticeable transformation in students' way of learning, improving digital skills and habits [5].

This paper focuses on understanding the effectiveness of technical assistance on psychological well-being and work-life balance.

# **Psychological Well-Being**

The existence of different facets of well-being has made its understanding complex. Well-being is a multifactorial construct, where the objective meaning includes the standard of living of an individual, and the subjective meaning could include all other dimensions such as physical, cognitive, psychological, emotional, social, financial, and spiritual. People of all ages are spending a huge amount of time and resources on technology, such as the use of digital media including social media platforms, electronic games, texting, internet use, and the internet of things, which utilise equipment such as smartphones, smartwatches, Bluetooth devices, laptops, tablets, etc., [6].

One research project explored gender differences in technology use, finding that adolescent girls spent more time on smartphones on social media, using various online portals, and texting. They also concluded that higher digital usage is associated with lower psychological well-being. Hence, mental health issues were higher among adolescent girls compared to adolescent boys [7]. Another research study was undertaken on 245 elderly people, determining that a favourable attitude toward technology has positive correlations with overall psychological well-being and social well-being. Therefore, positive technology improves the quality of personal experience and well-being at both personal and social levels [8]. Research on elderly people also indicates that technological advancement is a great source of support, improving their well-being and highlighting its crucial role in combating loneliness, isolation, and enhancing connectedness with their peers [9,10]. An exploratory research study used thematic analysis to explore the association between remote e-working in vital areas of life, work-life balance, well-being, and job effectiveness. It generated 10 themes, out of which trust and management style were two key influencers for the effectiveness of e-working [2].

The boost in dependency on technology, alongside technological advancement, has been brought about by Coronavirus Disease-2019 (COVID-19) pandemic. There have been alterations in the style of living in almost all spheres due to the effects of the pandemic. There has been a shift in the organisational sector from office desk jobs to remote working; from a fixed working schedule to a flexible working schedule; from manual proceedings to digital proceedings; from round table conferences to telecommunication, video conferences, and many more. In the educational sector, there has been a huge shift from the offline blackboard mode of teaching to online video classes on various platforms; examinations, moderation, and evaluations in an online mode [11]. Ensuring a sustainable future in an educational industry has been a remarkable contribution of technological advancement for not only the students but also the educators, as it has increased the accessibility of receiving information and also improved the methods of learning and retention [12,13]. The easy access to literature and information for the world has contributed to improving the methods of digitalisation through skill development on these platforms [14]. In the health industry, these shifts include online consultations; providing prescriptions online; receiving medications and treatments at the doorstep; health check-ups at home, and many more [15]. Although technological assistance has made our lives easier and simpler, it has not made a positive mark in terms of psychological well-being. There are numerous studies indicating a negative association between active technological use and psychological well-being. Increased digital or internet use is associated with lower psychological well-being, increased stress levels, higher procrastination, and psychological problems such as lower life satisfaction and happiness, and increased feelings of loneliness and social isolation [16,17].

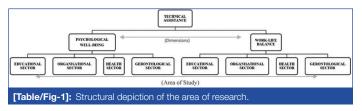
In the organisational sector, two critical factors ensure successful remote working: communication and support from colleagues [18]. Long sitting can lead to detrimental physiological effects such as musculoskeletal disorders, including back pain and neck pain. These physiological effects can also have a psychological impact, ultimately contributing to lower psychological well-being [2]. It can also be generalised that it is a challenge for elderly people to initiate the usage of technology in their day-to-day lives, as they are dependent on the younger generations to understand the accessibility of technology [19]. Another study reveals that adolescents who spend more time on screens, engaging in social media, gaming, texting, and using the internet, and less time in physical activities such as exercising, sports, and face-to-face interactions, had lower psychological well-being. Reportedly, they had lower self-esteem, life satisfaction, and happiness [17].

Regarding work-life balance, access to work through technological assistance has played a vital role in employee retention. The concept

of work-life balance involves the tendency to maintain a balance of responsibilities and obligations at home and work. This balancing of responsibilities is important because it ensures the satisfaction and engagement of employees in an organisation [20]. The results of a research study indicated that work-from-home, work-life balance, and work stress have a significant impact on job satisfaction. Hence, job satisfaction can be sustained if work-from-home is considered a key factor in organisations [21]. Studies also discuss how digital health technology has become a work demand and how it directly impacts job satisfaction and work-life balance [22].

The primary motive of any organisation is to justify the criteria of work-life balance for employees because it ensures professional loyalty, trust, a better work environment, commitment, and engagement, ultimately leading to efficient organisational achievements [23]. In simpler words, work-life balance refers to creating a balance between working on tasks and achieving targets at work and responsibilities toward home and family members, thereby maintaining overall harmony in life [24].

The purpose of the research was to explore the impact of technical assistance on psychological well-being and work-life balance. [Table/Fig-1] is a diagrammatic representation to understand the areas of research. It shows how this research article revolves around understanding the effects of technology on psychological well-being and work-life balance in the selected sectors, namely education, organisation, health, and gerontology.



#### Research Questions:

- To understand the influence of technical assistance on psychological well-being in the areas of education that focus on children, adolescents, and employees in an organisation.
- To highlight the influence of digitalisation in the health industry and its impact on the elderly population.
- To study the impact of technical assistance on work-life balance in the field of education and at the organisational level.
- To understand how advancing technology can influence work-life balance in the health industry and impact the elderly population.

# Primary objectives:

- Examine the perceptions of technical assistance concerning psychological well-being and work-life balance across different sectors
- Understand the impact of technology on psychological wellbeing in various sectors.
- To highlight the understanding of this research study to facilitate the integration of technology in these areas and identify the potential drawbacks to mitigate the negative effects of technology.

# Secondary objectives:

 To explore the pros and cons of technological support such as the use of the internet, development of software, and applications, in devices such as smartphones, watches, tools, etc., to enhance human efficiency and accuracy for global development.

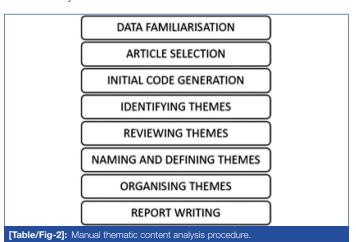
# **MATERIALS AND METHODS**

The current qualitative research study was done by collecting data online, reviewing relevant research papers from the past 22 years, from April 2000 to August 2022, at the Amity Institute of Psychology

and Allied Sciences, Amity University, Noida, Uttar Pradesh, India. The process began with a general idea of understanding the impact of technological advancement in different sectors. To achieve this, the authors considered reviewing the available literature and forming generalisations from the collected data in the form of themes to identify patterns. This research paper attempts to understand the concept of technology in terms of its impact on psychological well-being and work-life balance in four broad sectors: educational, organisational, health, and gerontological. A total of 75 relevant research papers were considered for the study, which were analysed and processed using thematic content analysis.

Research design: The research study utilises a secondary exploratory qualitative research design involving the analysis and interpretation of existing data. This design enables a re-examination of initially collected relevant literature, providing new insights and perspectives on the patterns of the impact of technology on psychological well-being and work-life balance in different areas of the study. The key components of the adopted research methodology range from identifying relevant research papers to generating themes and analysing them to identify the practical applications and limitations of technology in the different areas.

Research method: Manual thematic content analysis was chosen as the research method since it ensures the identification of the existing patterns of the effects of technology in the four sectors. [Table/Fig-2] depicts the complete process of manual thematic content analysis.



**Data familiarisation:** Various research articles were read and reread to match the objectives of the current research study, using a combination of keywords: "technical assistance," "digitalisation," "technology," "education," "children," "adolescents," "school," "college," "employee," "organisation," "older," "senior citizen," "elderly," "psychological well-being," and "work-life balance" on databases, namely IEEE Xplore, Scopus, and Google Scholar. A total of 75 research articles were finally shortlisted as relevant to the topic.

**Article selection:** The titles, abstracts, and complete research papers were subsequently screened by the author, and inclusion criteria were applied as mentioned below:

- Original and peer-reviewed research papers written in the English language.
- Qualitative, quantitative, or mixed methods research.
- Data collected online by reviewing relevant research papers from the past 22 years, from April 2000 to August 2022.
- Research aimed at investigating the factors influencing the use of electronic technology in the areas of education, organisation, health, and gerontology.
- Articles considered in this research paper used quantitative methods, qualitative methods, or a combination of both (mixed methods).

#### Inclusion criteria:

- Publication Date: Research studies published within the past 22 years, from April 2000 to August 2022, were considered for the current research study to promise apt relevance to the contemporary context.
- Research Type: Studies including qualitative, quantitative, or mixed methods were considered for the current research study.
- Areas considered: Research papers addressing educational, organisational, gerontological, and health sectors were considered for the research study.
- Technical assistance definition: Only studies employing technology, tools, or interventions aiming to support psychological well-being and work-life balance were included in the current research study.
- Language: Only research papers published in the English language were considered for this research study.

#### Exclusion criteria:

- Publication type: Research studies such as abstracts, case studies, anecdotes, editorials, or opinion pieces were not considered for the current research study to maintain the quality of included studies.
- Non relevance to topic: Research papers addressing areas other than the educational, organisational, gerontological, and health sectors were not considered for the research study.
- Limited technical assistance scope: Studies not directly defining the role of technology in psychological well-being and work-life balance were excluded from the current research paper.
- Incomplete information: Studies with insufficient information on method, result, or key findings were excluded from the research study to enable a comprehensive review of relevant literature.

**Initial code generation:** All the interesting and prominent features and patterns within the selected data were coded by short labels to capture the key ideas of the research articles.

**Identifying themes:** After highlighting the key ideas or tags from the research articles, they were categorised into wider themes that depict broader patterns and connections among codes. This categorisation was done based on recurring ideas.

**Reviewing themes:** The themes obtained were refined and reviewed to check if they relate to the entire dataset, ensuring an accurate and valid representation of themes within the dataset. The contributors of this research study were consistent and vigilant in reviewing the themes.

**Naming and defining themes:** Each tag or code that was finalised was defined, and a descriptive name was assigned to maintain clarity and consistency throughout the research analysis.

**Organising themes:** The finalised and defined themes were then organised into a coherent structure. This also enabled the identification of the existing relationships between the themes.

**Report writing:** A narrative of findings was developed where each theme was described with an appropriate explanation of their implications. The research article also highlights various references in its text to underscore the key points that indicate the findings of the study.

Broadly, it can be understood that the first stage of the analysis process was to extract adequate data from each article. For this, the articles were read in detail, in a random order. In the second stage, thematic content analysis was utilised for the synthesis of qualitative data. An understanding of the themes and their relationship with other variables was made, and subsequently, one combined model was developed. In the final stage, the factors obtained from articles were compared and reduced as the result of the analysis.

## **RESULTS**

After searching the research databases, the articles were reviewed, the data was extracted, and finally analysed. To analyse the data obtained, content analysis was performed to extract themes. Once the themes were extracted from the data analysis, they were organised in a tabulated manner for a better understanding of each area as mentioned in [Table/Fig-1]. The themes that were extracted from the educational sector in the dimension of psychological well-being were "addictive behaviour" and "enhancing support", and in the dimension of work-life balance were "learning outcome" and "supervisor support".

The themes generated from the organisational sector in the dimension of psychological well-being were "social capital" and "social media fatigue", and in the dimension of work-life balance were "schedule flexibility" and "remote working".

The themes drawn out from the health sector in the dimension of psychological well-being were "interventions to improvement" and "digital depression", and in the dimension of work-life balance were "injury and health support" and "digital divide".

The themes withdrawn from the gerontology sector in the dimension of psychological well-being were "technological readiness and social exclusion" and "social interaction and communication", and in the dimension of work-life balance were "technical knowledge" and "enhancing independence" [Table/Fig-3].

Sector	Psychological well-being	Work-life balance
Education sector	Addictive behaviour	Learning outcome
	Enhancing support	Supervisor support
Organisational sector	Social capital	Schedule flexibility
	Social media fatigue	Remote working
Health sector	Interventions to improvement	Injury and health support
	Digital depression	Digital divide
Gerontological sector	Technological readiness and social exclusion	Technical knowledge
	Social interaction and communication	Enhancing independence

[Table/Fig-3]: Results of thematic analysis obtained in each sector of both dimensions.

- A. Themes generated in the educational sector on psychological well-being:
- Addictive behaviour: Excessive use of social networking can become problematic and lead to dependency and technology overload, ultimately resulting in techno stress. Technology overload involves performing tasks rapidly and for a longer duration, resulting in receiving more information than can be processed. This makes the user exchange more information than required and ultimately creates addiction. It is found that this addictive behaviour among children and adolescents leads to lower self-esteem, self-efficacy, and happiness, and increases burden and fatigue, thereby harming psychological well-being.
- 2) Enhancing support: Adolescents are most susceptible to experiencing stress, anxiety, and depression. This can impair their functioning in terms of academic achievement and social interaction. Since students are excessively connected to technological assistance, it can be said that web-based interventions can be utilised to improve their mental health.
- B. Themes generated in the organisational sector on psychological well-being:
- Social capital: Individuals in the organisational sector tend to maintain the quality of their community life. Mobile phones have become a necessary element in everyday life. The use of mobile phones for communication has proven to positively predict the social capital of employees and ultimately contribute to better

- psychological well-being. The elements of positive psychological well-being are evident in terms of improving connections between individuals, greater life satisfaction, a better quality of social relationships, and better employee engagement.
- 2) Social media fatigue: The use of social media services for leisure is associated with poor well-being. Many people have temporarily or permanently refrained from social media due to excessive fatigue resulting from its use. Research indicates that compulsive media use leads to social media fatigue, resulting in elevated anxiety and depression.
- C. Themes generated in the health sector on psychological well-being:
- 1) Interventions for improvement and social exclusion: With increased awareness of psychological conditions, more and more people are reporting mental health problems, such as depression and anxiety, and most often, they face barriers to seek mental health treatments. Research indicates that digital mental health interventions involving web-based and app-based provisions to improve access to mental health treatment should be adopted on a large scale to improve accessibility and ultimately improve the effectiveness, usability, uptake, and adoption of such programs.
- 2) Digital depression: Since most of the population now uses smartphones and smart devices, their private and work lives have become fragmented because of attentional absorption caused by digital devices, leading to reduced productivity. This leads to a general feeling of dissatisfaction and anxiety and ultimately depression, which poses a threat to subjective wellbeing and happiness.
- D. Themes generated in the gerontology sector on psychological well-being:
- Technological readiness: Population ageing is a global phenomenon and is becoming a concern, as technology is applied to improve strategies for maintaining the health and well-being of older adults. Research has indicated that there is technological readiness and availability for older adults to monitor their activities of daily living, assess their cognitive health, heart conditions, and complex biological needs. Improvements can be made in the areas of developing smart homes and home health monitoring systems.
- 2) Social interaction and communication: For the elderly population, the massive impact of technology use has been evident after the impact of COVID-19, when the source of social interaction was singularly backed by using the internet and smart devices. The elderly population has accepted and adopted this mode of communication and interaction, thereby maintaining their social status and social life, residing in their safe zones, i.e., their homes.
- E. Themes generated in the educational sector on work-life balance:
- Learning outcome: Innovative teaching methods facilitate better learning and performance of students in school. The internet and smart devices have proven to enhance access to information in the learning environment. Students can utilise and comprehend the smart lesson plans better than the traditional stoic plans of yesteryear.
- 2) Supervisor support: With the improvement and advancement in technology, schools have improved the standards of education. This advancement helped schools and colleges to ameliorate the safety of their campuses, monitor key resources, and create a better learning experience for students.
- F. Themes generated in the organisational sector on work-life balance:
- 1) Schedule flexibility: There are several benefits of flexible working in an organisation, for both employers and employees. It helps to invite, recruit, and maintain high-quality employees

in an organisation. Research indicates that it helps to improve employee job satisfaction, work commitment, loyalty, engagement at work, organisational commitment, and better work performance, and personal life management.

- 2) Remote working: Advancement in technology has enabled remote access to work. This has a positive impact on maintaining work-life balance since it improves the level of job and life satisfaction as employees enjoy flexibility and autonomy to balance their work and personal lives. This has also proven to increase the level of motivation and reduce stress among employees.
- G. Themes generated in the health sector on work-life balance:
- 1) Injury and health support: The new standards brought by technological advancement and the Internet of Things have redefined the healthcare sector by guaranteeing better care and support. Advancements in artificial intelligence, machine learning, natural language processing, information technology, and cloud computing have improved and resulted in secure, fast, reliable, feasible, and accessible treatment outcomes for patients. There are better procedures and work patterns within the healthcare sector that have led to improved performance and a better patient experience for healthcare providers.
- 2) Digital divide: The two key aspects that define the concept of the digital divide are "digital exclusion" and "disabling barriers." The accessibility of smartphones and digital devices is comparatively more complex for people who belong below the poverty line and for those who are disabled. This is because either the cost of digital technology is high, or the usage of smart devices is not accessible for the disabled. This creates a digital divide leading to digital exclusion.
- H. Themes generated in the gerontology sector on work-life balance:
- Technical knowledge: It is found that coping with advancing technology takes a toll on elderly people. The biological explanation for this concept is the inevitable cognitive decline that occurs with age, which makes it complicated for them to learn, unlearn, and relearn the advancements in technology. Although research indicates existing technological acceptance in the elderly population.
- 2) Enhancing independence: Technological advancement has helped sustain and accelerate improvements in the quality of life for ageing population. Assistive technologies help elderly people monitor their daily functioning better and help them take adequate action on time. Smart technologies have enabled better integration of information technology with healthcare, resulting in powerful, individualised tools that assist the elderly population with their needs.

## **DISCUSSION**

The goal of this research article was to thoroughly investigate how technical support affects basic components of human functioning, focusing on psychological health and work-life balance. The phrase "technical assistance" refers to the wide-ranging effects of digital technologies in modern society [22]. Authors aim to investigate the complex interactions that these technological developments have with the dynamics of personal mental health and work-life balance. The goal was to offer a comprehensive understanding of how technical support influences and interacts with the psychological and work-life aspects of the human experience in the modern digital age through intensive analysis and empirical research [2].

The context of social contact, work schedules, recreational pursuits, and more has changed dramatically because of technological breakthroughs. All are heading toward a future characterised by creative living standards owing to this paradigm shift. The significant shifts occurring in many areas of human society are making a lasting impression and leading us into a new era of innovative lifestyles

[24]. This profound development in a variety of fields represents a significant reinterpretation of how we live in a society where technological innovations are progressively shaping society, rather than just a surface change. This dynamic transition is a path towards a more effective and smoothly operating digital world rather than simply a shift for change.

The significant impacts of this technological wave are changing not just how one live their daily lives but also how the society is structured, bringing in a new era of increased utility and efficiency.

The present study adopts a qualitative, review-based approach to explore the complex dynamics of how technical support influences psychological health and work-life balance in the wider context of human functioning. This influence is thoroughly examined in four different areas: education, which focuses on how technology influences the learning outcomes and mental health of kids and teenagers; organisations, which investigates how technology affects employee mental health and the delicate balance between work and personal life; health, which emphasises how digitalisation affects the efficiency of health support systems and the healthcare sector overall; and gerontology, which highlights the effects of technology on the well-being of the elderly population.

This thorough review compiles findings from about 75 research studies published in different journals. Strict selection standards were utilised to guarantee inclusivity and relevance to the study's goals. Notably, a study conducted in 2021 by Sánchez Ruiz LM et al., highlighted the dynamic impact on education by revealing a significant transformation in students' learning processes when digital technologies were integrated into educational platforms [5]. Furthermore, a 2018 study by Zambianchi M and Carelli MG showed that having a positive attitude toward technology was positively correlated with both social and psychological well-being, improving overall experience quality [8]. These results advance a more sophisticated comprehension of the complex impacts of technical support on various facets of human functioning.

Manual thematic content analysis was used to analyse the data, and proper procedures were followed to account for the ideas and patterns of the variables. The procedure is explained in detail in this research paper and involves data familiarisation, article selection, initial code generation, identifying themes, reviewing themes, naming and defining themes, organising themes, and finally report writing.

The themes "addictive behaviour" and "enhancing support" were drawn from the sector of education for the psychological well-being dimension, and "learning outcome" and "supervisor support" were taken from the work-life balance dimension. The organisational sector produced the themes "social capital" and "social media fatigue" for the psychological well-being dimension, and "schedule flexibility" and "remote working" for the work-life balance dimension. The themes that emerged from the health sector were "digital divide" and "injury and health support" in the context of work-life balance, and "interventions to improvement" and "digital depression" in the context of psychological well-being. The themes obtained from the gerontology sector were "technological knowledge" and "enhancing independence," and "technological readiness and social exclusion" and "social interaction and communication" in the dimension of psychological well-being and work-life balance, respectively.

#### Limitation(s)

The study report has some shortcomings, prominent among which is the omission of other important aspects of human functioning that are touched by technology. Although the study explores four distinct domains of technological impact, it falls short of covering a wider range of interactions between humans and technology.

The research paper's findings have significant significance, as they point to the urgent need for interventions that strive for a balanced use of technology to optimise human functionality. The useful results

of this research may facilitate the creation of efficient methods for limiting technology use, which would help to reduce problematic use and treat the addictive behaviours linked to technology dependence.

Moreover, the study may have implications for how its findings are applied in the context of senior-friendly smart homes. Through the application of acquired insights, there exists a chance to develop and deploy technologies that watch over and support the everyday activities of senior citizens. By matching technology to the unique demands and challenges of the elderly, this application has the potential to significantly enhance their quality of life.

# **CONCLUSION(S)**

The transformation of society is a constant and global phenomenon, and a central part of this transformation is technological advancement and digitalisation. The loose components of this advancement include the Internet, smartphones, smart devices, the Internet of Things, artificial intelligence, information technology, and cloud computing, among others. Traditional work methods are increasingly becoming digitised. This research study aims to explore the impact of technical assistance on psychological well-being and work-life balance by integrating new digital technologies with two broad areas of human functionality. To achieve this, several research articles were strategically searched, selected, and analysed. Thematic analysis was applied, resulting in the identification of several themes after reviewing more than 75 research articles. The research articles were categorised into four broad areas: educational, organisational, health, and gerontology. In order to comprehend the impact of technology, themes were extracted from each of these four sectors in relation to psychological well-being and work-life balance. The qualitative analysis of this research review suggests that the age of digitalisation and ongoing technological development has impacted the lives of children and adolescents in terms of their education, employees in terms of their work patterns and mental health status, the availability and improvements in the healthcare sector, and the acceptance, coping, and adjustment with this by the elderly population.

# **REFERENCES**

- [1] Chaouchi H, Bourgeau T. Internet of things: Building the new digital society. IoT [Internet]. 2018;1(1):01-04. Available from: https://doi.org/10.3390/iot1010001.
- [2] Grant C, Wallace L, Spurgeon P. An exploration of the psychological factors affecting remote e-worker's job effectiveness, well-being and work-life balance. Employee Relations [Internet]. 2013;35(5):527-46. Available from: https://doi. org/10.1108/er-08-2012-0059.
- [3] WHO Global Strategy on People-centred and Integrated Health Services: Interim Report. 2015. https://www.afro.who.int/sites/default/files/2017-07/who-global-strategy-on-pcihs-main-document\_final.pdf. Accessed on 10<sup>th</sup> Oct, 2023.
- [4] Okoye K, Haruna H, Arrona-Palacios A, Quintero HN, Ortega LOP, Sanchez AL, et al. Impact of digital technologies upon teaching and learning in higher education in Latin America: An outlook on the reach, barriers, and bottlenecks. Educ Inf Technol. 2022;28(2):2291-360. Available from: https://doi.org/10.1007/s10639-022-11214-1.
- [5] Sánchez Ruiz LM, Moll-López S, Moraño-Fernández JA, Llobregat-Gómez N. B-learning and technology: Enablers for university education resilience. An experience case under COVID-19 in Spain. Sustainability [Internet]. 2021;13(6):3532. Available from: https://doi.org/10.3390/su13063532.

- [6] Jerome LW, DeLeon PH, James LC, Folen R, Earles J, Gedney JJ. The coming of age of telecommunications in psychological research and practice. Am Psychol. 2000;55(4):407-21. Doi: 10.1037/0003-066x.55.4.407.
- [7] Twenge JM, Martin GN. Gender differences in associations between digital media use and psychological well-being: Evidence from three large datasets. J Adolesc. 2020;79(1):91-102. Available from: https://doi.org/10.1016/j. adolescence.2019.12.018.
- [8] Zambianchi M, Carelli MG. Positive attitudes towards technologies and facets of well-being in older adults. J Appl Gerontol. 2016;37(3):371-88. Available from: https://doi.org/10.1177/0733464816647825.
- [9] Yang F, Chau AKC, Wong A, Fung HH, Woo J. Information and communicative technology use enhances psychological well-being of older adults: The roles of age, social connectedness, and frailty status. Aging & Mental Health [Internet]. 2017;22(11):1516-24. Available from: https://doi.org/10.1080/13607863.2017. 1358354.
- [10] Ibarra F, Báez M, Cernuzzi L, Casati F. A systematic review on technology-supported interventions to improve old-age social wellbeing: Loneliness, social isolation, and connectedness. J Healthc Eng. 2020;2020:2036842. Available from: https://doi.org/10.1155/2020/2036842.
- [11] Kumar A, Krishnamurthi R, Bhatia S, Kaushik K, Ahuja NJ, Nayyar A, et al. Blended learning tools and practices: A comprehensive analysis. IEEE Access [Internet]. 2021;9:85151-97. Available from: https://doi.org/10.1109/access.2021.3085844.
- [12] Ng W. New digital technology in education: Conceptualizing Professional Learning for Educators. Springer; 2015.
- [13] Burbules NC, Fan G, Repp P. Five trends of education and technology in a sustainable future. Geogr Sustain. 2020;1(2):93-97. Available from: https://doi. org/10.1016/j.geosus.2020.05.001.
- [14] Dec G, Stadnicka D, Paśko Ł, Mądziel M, Figliè R, Mazzei D, et al. Role of academics in transferring knowledge and skills on artificial intelligence, internet of things and edge computing. Sensors. 2022;22(7):2496. Available from: https:// doi.org/10.3390/s22072496.
- [15] Mehta N, Chaudhary A. Infrastructure and system of telemedicine and remote health monitoring. In: Springer eBooks [Internet]. 2022. Pp. 13-28. Available from: https://doi.org/10.1007/978-3-030-99457-0\_2.
- [16] Twenge JM. More time on technology, less happiness? Associations between digital-media use and psychological well-being. Current Directions in Psychol Sci. 2019;28(4):372-79. Available from: https://doi.org/10.1177/0963721419838244.
- [17] Twenge JM, Campbell WK. Associations between screen time and lower psychological well-being among children and adolescents: Evidence from a population-based study. Prev. Med. Rep. 2018;12:271-83. Available from: https://doi.org/10.1016/j.pmedr.2018.10.003.
- [18] Prasad KSN, Vaidya R, Mangipudic MR. Effect of occupational stress and remote working on psychological well-being of employees: An empirical analysis during COVID-19 pandemic concerning information technology industry in Hyderabad. Indian J Comm Management Studies. 2020;XI(2):1. Available from: https://doi. org/10.18843/ijcms/v11i2/01.
- [19] Oppenauer C, Preschl B, Kalteis K, Kryspin-Exner I. Technology in old age from a psychological point of view. In: Holzinger, A. (eds) HCl and usability for medicine and health care. USAB 2007. Lecture Notes in Computer Science. vol 4799. Springer, Berlin, Heidelberg. Available from: https://doi.org/10.1007/978-3-540-76805-0 11.
- [20] Hoffmann-Burdzińska K, Rutkowska M. Work life balance as a factor influencing well-being. J Posit Manag. 2015;6(4):87. Available from: https://doi. org/10.12775/jpm.2015.024.
- [21] Irawanto DW, Novianti KR, Roz K. Work from home: Measuring satisfaction between work-life balance and work stress during the COVID-19 pandemic in Indonesia. Economies [Internet]. 2021;9(3):96. Available from: https://doi. org/10.3390/economies9030096.
- [22] Zaresani A, Scott A. Does digital health technology improve physicians' job satisfaction and work-life balance? A cross-sectional national survey and regression analysis using an instrumental variable. BMJ Open [Internet]. 2020;10(12):e041690. Available from: https://doi.org/10.1136/bmjopen-2020-041690.
- [23] Albino V, Garavelli AC, Gorgoglione M. Organisation and technology in knowledge transfer. Benchmarking: An International Journal. 2004;11(6):584-600. Available from: https://doi.org/10.1108/14635770410566492.
- [24] Nam T. Technology use and work-life balance. Applied Research in Quality of Life. 2013;9(4):1017-40. Available from: https://doi.org/10.1007/s11482-013-9283-1.

#### PARTICULARS OF CONTRIBUTORS:

- 1. PhD Scholar, Amity Institute of Psychology and Allied Sciences, Amity University, Noida, Uttar Pradesh, India.
- 2. Associate Professor, Amity Institute of Psychology and Allied Sciences, Amity University, Noida, Uttar Pradesh, India.
- 3. Senior Lecturer, School of Psychology and Health Department, Curtin University, Dubai.

## NAME, ADDRESS, E-MAIL ID OF THE CORRESPONDING AUTHOR:

Ms. Aarushi Rajput,

Flat 631, Metro View Apartment, Sector 13, Pocket B, Phase II, Dwarka, New Delhi-110078, India.

E-mail: ruhelasonakshi07@gmail.com; aarushirajput1805@gmail.com

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