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THE INVISIBLE HAND OF ARTIFICIAL INTELLIGENCE: UNDERSTANDING THE IMPACT OF TECHNOLOGY

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Abstract

This study examines the intricate relationships between artificial intelligence (AI) and family dynamics, considering both the technology's benefits and drawbacks, particularly in the context of Turkey. Every element of daily life will be impacted by AI by 2025, including communication, routines, and family finances. Artificial intelligence (AI) enhances family productivity and may result in higher family income and more quality time by reducing household chores, enabling remote employment and education, and offering individualised learning and healthcare support. However, there are many problems with AI, including the possibility of social isolation due to excessive screen time, algorithmic biases that affect family choices, privacy concerns arising from data

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collection, and digital inequality caused by high costs. High inflation in Turkey is driving the adoption of AI, while income inequality exacerbates the digital gap. According to the study, policies that promote equitable access, robust data security, and responsible AI use are crucial. To ensure sustained prosperity in the AI era while preserving family unity, future research should focus on the long-term, culturally sensitive consequences in Turkey.

Keywords: *Artificial Intelligence, Family Dynamics, Digital Transformation, Turkey*

YAPAY ZEKÂ'NIN GÖRÜNMEZ ELİ: TEKNOLOJİNİN ETKISİNİ ANLAMAK

Öz

Bu çalışma, özellikle Türkiye bağlamında, yapay zekâ ve aile dinamikleri arasındaki karmaşık ilişkileri, teknolojinin hem avantajlarını hem de dezavantajlarını göz önünde bulundurarak incelemektedir. 2025 yılına kadar, iletişim, rutinler ve aile finansmanı dahil olmak üzere günlük yaşamın her unsuru yapay zekanın etkisinde kalacaktır. Yapay zekâ, ev işlerini azaltarak, uzaktan çalışma ve eğitime olanak tanıyarak ve kişiselleştirilmiş öğrenme ve sağlık desteği sunarak aile üretkenliğini artırır ve daha yüksek aile geliri ve daha kaliteli zaman geçirilmesini sağlayabilir. Ancak yapay zekâ ile ilgili bir dizi sorun da bulunmaktadır. Bunlar arasında aşırı ekran süresine bağlı sosyal izolasyon olasılığı, aile seçimlerini etkileyen algoritmik önyargılar, veri toplama kaynaklı gizlilik endişeleri ve yüksek maliyetlerin neden olduğu dijital eşitsizlik sayılabilir. Türkiye'deki yüksek enflasyon, yapay zekânın benimsenmesini teşvik ederken, gelir eşitsizliği dijital uçurumu daha da derinleştiriyor. Çalışmaya göre, eşit erişimi, sağlam veri güvenliğini ve sorumlu yapay zekâ kullanımını teşvik eden politikalar çok önemlidir. Yapay zekâ çağında sürdürülebilir refahı sağlamak ve aile birliğini korumak için, gelecekteki araştırmalar Türkiye'deki uzun vadeli, kültürel açıdan duyarlı sonuçlara odaklanmalıdır.

Anahtar Kelimeler: *Yapay Zekâ, Aile Dinamikleri, Dijital Dönüşüm, Türkiye*

1. Introduction

Artificial intelligence, one of the most transformative forces of the digital age, has permeated every corner of our lives as of 2025. Developments in deep learning and computational scalability beginning in the early 2010s sparked a steady, quickening process of integrating AI into several international sectors. As a result of this slow technological development, artificial intelligence (AI) is now gradually influencing vital processes, from automated manufacturing to complex financial data processing. Because of this ongoing infiltration, by 2025, artificial intelligence had reached a critical inflexion point, or a condition of pervasive influence. By this year, artificial intelligence has evolved from a specialised tool to a vital piece of infrastructure that essentially supports making decisions in almost every area of our lives. Thus, the pervasive influence seen in 2025 represents the present all-encompassing phase of a digital revolution rather than the discrete start of the change. From smart home systems to personal assistants, and from educational technologies to healthcare services, artificial intelligence deeply affects our daily routines, the way we communicate, and our access to information. The family, as the most fundamental unit of society, is an indispensable structure for the socialisation, emotional development, and well-being of individuals. With the widespread adoption of artificial intelligence technologies, it has become critical to evaluate their potential impact on family dynamics from a holistic perspective, considering both the positive opportunities and potential risks (Rashid & Kausik, 2024).

At first glance, artificial intelligence has the potential to enhance family unity and functionality. Smart home devices can reduce the burden of household chores, giving parents more free time, while remote work and education opportunities can make it easier for family members to come together

regardless of geographical distance. In particular, educational support tailored to children's individual needs through robotic assistants or personalised learning algorithms in elderly care offers concrete benefits that can improve the quality of life for families. There are strong expectations that these technological developments can contribute to spending more quality time within the family or strengthening bonds between different generations (Lee & Tang, 2024). However, the impact of artificial intelligence technologies on family dynamics raises serious concerns beyond their potential benefits. Excessive screen time and the imbalance between the virtual world and real life can negatively affect the development of social skills, especially among children and young people. The massive volume of data collected by smart devices and platforms threatens family privacy and data security, while the risk of algorithmic bias unknowingly influencing various family decisions, from consumption habits to education, should not be overlooked. These situations can weaken family cohesion by leading to a decrease in face-to-face communication among family members, digital addictions, and even a digital divide within the family (Arees, 2023; Naghib et al., 2023).

Building on the opportunities created by artificial intelligence (AI) in the field of communication, Alfeir (2024) aims to examine the effects of AI dimensions on family communication. The research aimed to provide valuable insights for families and society in the digital age, identify potential concerns, and offer recommendations by deeply exploring the multifaceted effects of AI on family communication. The findings indicate both a lack of information and transparency issues regarding the data storage and privacy policies of AI-powered communication systems. As a result of the overall assessment, it was concluded that AI dimensions have a positive impact on family communication.

Lainjo (2023), which examines the potential of Artificial Intelligence (AI) to deepen or reduce social inequalities, aims to analyse its effects, particularly between high-income countries and low- and middle-income countries (LMICs). Using secondary data obtained from academic literature and policy documents, the study examined the impact of AI on labour markets, education, and healthcare systems, identifying emerging inequality factors. The findings highlighted the economic gap in access to AI technologies (the digital divide) and the risk of embedded biases in AI systems perpetuating discrimination. In conclusion, the article suggests that policymakers should prioritise education, digital infrastructure, fair AI development, and ethical regulations to protect disadvantaged groups and maximise the benefits of AI.

Druga et al. (2022) scrutinised parents' roles in developing AI literacies in children. The findings revealed that parents were eager to develop AI literacy among their children. Typically, the focus was on object recognition, voice assistance, image classification, and AI co-design. DesJardine et al. (2023) theoretically and empirically examine the dynamics of "media-rival cross-ownership" (where investors own both the media company and the focal firm's competitors), which are rarely studied in competitive markets. The main finding is that institutional investors with common holdings enabled negative and biased reporting against the target firm through their commonly owned media outlets to increase the competitiveness of rival firms, and that this effect intensified as investor power increased. This analysis, supported by a new dataset, positions the media as a tool used in inter-firm strategic competition, revealing a new invisible hand underlying competitive market.

Abreu et al. (2020) examine the dynamics of "media-rival cross-ownership" (where investors own both the media company and the focal firm's competitors), which are rarely studied in competitive markets. The main finding

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Mhlanga (2021) conducted using content analysis that showed that AI has a strong impact, particularly in combating poverty, by improving the collection of poverty-related data, revolutionising agricultural education, and enabling poverty reduction through financial inclusion. It was concluded that AI also supports economic growth and development in SOEs by increasing the certainty and reliability of infrastructure, such as transportation, and therefore it was emphasised that governments should invest more in the use and research of AI to achieve the relevant Sustainable Development Goals.

In this context, while the literature on the social impacts of artificial intelligence is growing, comprehensive and empirical studies addressing the multidimensional reflections of artificial intelligence on family unity in a direct and in-depth manner are still limited (Tai, 2020; Efe, 2022). The current paper generally focuses on technology use at the individual level, while complex interactions within the family unit and long-term outcomes have not been sufficiently examined. Artificial intelligence is rapidly evolving and is expected to become an integral part of daily life by 2025 (Kamalov et al., 2023). Filling this gap is of strategic importance for policymakers, technology developers, and families themselves.

Artificial intelligence (AI), a fundamental element of the Fourth Industrial Revolution, has begun to deliver on its promised true value thanks to the availability of relevant data, computing power, and algorithms. This study

examines the impact of AI on poverty reduction (SDG 1) and industrial and infrastructure development (SDG 9) in Developing Economies (DEs). The results of the study conducted using content analysis showed that AI has a strong impact, particularly in combating poverty, by improving the collection of poverty-related data, revolutionising agricultural education, and enabling poverty reduction through financial inclusion. It was concluded that AI also supports economic growth and development in SOEs by increasing the certainty and reliability of infrastructure such as transportation, and therefore it was emphasised that governments should invest more in the use and research of AI to achieve the relevant Sustainable Development Goals.

2. The Relationship Between Family Dynamics and Artificial Intelligence

The integration of artificial intelligence technologies into households and individual living spaces has gained tremendous momentum in recent years. Artificial intelligence applications, ranging from smart home assistants to personalised education algorithms, robotic vacuum cleaners to health monitoring systems, are reshaping families' daily routines, communication patterns and resource management habits. In light of this rapid technological evolution, literature in the fields of social sciences and technology ethics is showing increasing interest in understanding the multifaceted effects of artificial intelligence not only on individuals but also on the family unit, which is the cornerstone of society. Initial studies have focused on defining the nature of this integration and providing a framework for its potential implications (Almusaed et al., 2023).

When considering the positive contributions of artificial intelligence to family life, smart home systems and automation technologies have the potential to save time for working parents and caregivers by lightening the household

workload (Aggar et al., 2023). The facilitation of family planning and organisation through virtual assistants and smart devices can enable family members to spend their time more efficiently. In addition, AI-supported educational platforms and adaptive learning tools enrich learning experiences by providing content tailored to children's learning styles, thereby facilitating parental involvement in the educational process. Studies conducted in the United States and Western European countries have found that such enabling technologies increase household productivity (Mazarakis et al., 2023; Salmani, 2023; Sajja et al, 2024).

However, the literature also raises serious concerns about the potential negative impact of artificial intelligence on family communication and social interaction. Excessive use of smartphones and other digital devices can reduce face-to-face communication among family members, and behaviours such as 'phubbing' (ignoring others due to being preoccupied with one's phone) can have negative effects on marital satisfaction and parent-child bonds (Kim & Ryu, 2023). Studies conducted in countries with high rates of technology adoption, such as Japan and South Korea, show that increased dependence on digital devices has led to a decrease in the amount of time spent talking within the family and that individual screen time can take precedence over family activities. This situation carries the risk of causing emotional distance between family members despite their physical proximity (Kim et al., 2023; West et al., 2024).

One of the most critical areas of debate arising from the integration of artificial intelligence into family life is privacy, data security, and ethical considerations. Sensitive personal data collected through devices such as smart speakers, baby monitors, and AI-enabled toys carries the risk of misuse through unauthorised data sharing or cyberattacks (Allhoff & Henschke, 2018). Algorithmic biases

affecting various decisions, from families' consumption preferences to children's access to educational materials, raise many ethical questions. The GDPR in the European Union (EU) and consumer privacy debates in the United States enrich the existing literature on how these ethical concerns should be addressed in a legal and social Context (Jorgensen et al., 2025).

The relationship between artificial intelligence and parenting/child development is another area extensively studied in the literature. While AI-supported educational applications and smart toys offer the potential to personalise children's learning processes, there is ongoing debate about the long-term effects of excessive technology use on children's cognitive development, social skills and emotional intelligence (Wang, W. & Siau, 2019; Akter et al, 2020). In particular, developmental psychologists and educational scientists are researching whether children's interactions with AI-powered virtual friends or caregivers will replace real human relationships and how they will affect empathy development. Studies in this area also address parents' attitudes toward their children's use of AI and their concerns about technology (Hu et al., 2025).

With the increasing ageing population, the topics of artificial intelligence in elderly care and alleviating the burden on families are also gaining prominence in the global literature. In regions with a high proportion of elderly populations, such as Japan and some European countries, monitoring systems, fall detectors, and even robotic companionship systems are being developed to help the elderly maintain their independent lifestyles (Laestadius et al., 2023). The literature highlights the potential of such artificial intelligence solutions to reduce stress on caregivers and improve the quality of life for older individuals, while also drawing attention to ethical and social challenges such as privacy

violations, reduced human interaction, and unequal access to technology (AlQudah et al., 2021; Meng & Dai,2021).

The literature examining the relationship between artificial intelligence and family dynamics in the Turkish context is still in its early stages compared to global studies, but it is growing rapidly. The high rates of smartphone and internet usage in Turkey indicate that AI applications have a high potential to penetrate households. In particular, the widespread adoption of remote education and work following the COVID-19 pandemic has accelerated the integration of digital technologies into family life (Shum & Bobo Lau, 2024; Tuncalp, 2025).

The adoption of AI technologies within families in Turkey shows significant differences between urban and rural areas and between different age groups. Smart home devices and AI-powered personal assistants are spreading more rapidly among young and middle-aged families in large cities. Still, adoption remains slower in rural areas and among older generations (Savaş, 2021; Ranaa et al., 2024). This situation creates a new digital divide based on access to and use of technology among family members, which can both complicate intergenerational communication and create new forms of interaction (such as younger people who are proficient in technology supporting older people).

With the widespread adoption of remote education in the post-pandemic period, AI-supported learning applications have entered the agenda of Turkish families. Kaya & Mutlu-Bayraktar (2021) indicate that Turkish parents generally have a positive attitude towards their children using AI-supported education platforms, but they have deep concerns about the content of these platforms and their effects on children's screen time and learning motivation. While parents appreciate the personalised learning advantages of artificial

intelligence, they are also concerned about its potential negative effects on their children's social and emotional development.

Given Turkey's ageing population and strong family ties, elderly care is an important area where artificial intelligence intersects with family dynamics. While there was initial hesitation toward AI-supported wearable technologies used for monitoring the health of elderly individuals, acceptance rates increased as it became evident that these technologies reduced the care burden on family members and enhanced the safety of the elderly. However, privacy concerns and fears that such technologies may replace human interaction remain significant barriers to their widespread adoption (Pirzada et al., 2021; Bertolazzi et al., 2024).

With the increase in smart home devices, the privacy and security of personal and family data collected by these devices have become a critical issue for Turkish households. A large proportion of Turkish families do not have sufficient information about the data collected by smart home devices and are unaware of potential security risks. This situation has heightened parental concerns about how data collected during children's interactions with voice assistants is used and underscores the importance of digital security awareness within families (Vardakis et al., 2024).

How artificial intelligence-supported home automation systems affect the distribution of household chores in Turkish families, where traditional gender roles are still strong, is an interesting topic of research. Devices such as robot vacuum cleaners or smart washing machines nominally reduce women's household workload, but this does not fundamentally alter traditional gender roles. It was concluded that household chores remain largely the responsibility of women, and that artificial intelligence technologies are positioned as a

"supportive" tool for these roles, but not as a "transformative" force (Uyan & Gültekin, 2024).

The increasing integration of digitalisation and artificial intelligence into young people's lives is having a significant impact on the digital well-being and quality of family communication among adolescents in Turkish families. The appeal of AI-supported social media algorithms and games to Turkish adolescents can reduce the amount of quality face-to-face time spent with family members. However, it was also observed that communication tools offered by artificial intelligence (e.g., video calls) play an important role in maintaining the bond between family members living far apart, pointing to the dual impact of technology (Revak & Csiszarik-Kocsir, 2024)

Strong family ties, intergenerational living, and cultural values, which are unique socio-cultural factors in Turkey, may differentiate how artificial intelligence technologies are adopted and their reflections within families. In this context, Turkish families' levels of digital literacy, perceptions of privacy, and general attitudes towards artificial intelligence are receiving more attention in current studies. However, there are still significant gaps in the literature in Turkey (Bezcioglu-Goktolga & Yagmur, 2022). The number of comprehensive studies examining the long-term, large-scale empirical effects of artificial intelligence on Turkish families is limited. Additionally, there is a need for detailed analyses of how the effects of artificial intelligence vary across Turkey's unique family structures, regional differences, and socio-economic strata (Güven & Yumugan, 2025). Future research should examine in depth the effects of artificial intelligence on Turkish families in areas such as communication habits, child-rearing practices, elderly care, and financial management, adopting multidisciplinary approaches that take cultural sensitivities into account. This will enable the development of strategies to preserve well-being and integrity in

the age of artificial intelligence for both policymakers and families (Allioui & Mourdi, 2023; Malarvizhi et al., 2025).

3. The impact of artificial intelligence on family cohesion

The integration of artificial intelligence technologies into households and individual living spaces has become a decisive force in the global economy and family dynamics as of 2025. A wide range of artificial intelligence applications, from smart home systems to personalised education algorithms, robotic cleaners to smart health trackers, is profoundly affecting families' economic functions such as time management, consumption habits and even value transfer. The family is a fundamental building block that contributes to economic growth as a consumption unit and directly influences macroeconomic performance through labour supply and social capital production. In this context, the influence of artificial intelligence on family life has the potential to shape both families' economic well-being and overall social cohesion (Almusaed et al., 2023).

The positive economic implications of artificial intelligence on family dynamics are being increasingly studied in the literature. Smart home automation systems and domestic robots reduce the burden of routine household chores (cleaning, meal preparation), thereby providing significant amounts of “free time” to working parents and caregivers. This time savings can positively contribute to family income by increasing individuals' participation in the paid labour force or creating opportunities for quality family interaction. Artificial intelligence-supported platforms that offer remote work and education opportunities reduce transportation costs while offering the potential to increase women's permanence in the labour market and access new economic opportunities by overcoming geographical constraints (Pimenow et al., 2025).

Financial artificial intelligence tools can lead to direct economic savings by optimising family budget management, reducing energy consumption, or enabling more informed investment decisions.

However, the negative implications of artificial intelligence technologies on family economies and integrity are also clearly addressed in the literature. The high costs of AI-enabled devices and subscription-based services can create a significant economic burden, particularly for low-income families, thereby deepening digital inequality. This situation means that differences in access to technology can reinforce existing economic inequalities by limiting access to information and new economic opportunities (Toorajipour et al., 2021; Varriale et al., 2025). In addition, excessive screen time and digital addiction can negatively affect individuals' productivity and social skills, which can lead to a decline in human capital quality and potential economic losses in the long term.

Data privacy and security are another critical dimension of the economic impacts of artificial intelligence on family dynamics. Personal and family data collected through smart home devices and applications represent significant economic value for technology companies and are creating new business models through data monetisation. However, this situation carries the risk of data breaches creating direct economic costs for families, such as identity theft and financial fraud (Popoola et al., 2024; Pinto & Prazeres, 2025). Furthermore, biases in artificial intelligence algorithms (e.g., in credit applications or hiring processes) can lead to economic exclusion and negatively affect families' well-being, thereby deepening existing socio-economic inequalities.

The impact of artificial intelligence on parenting and child development is of great importance in terms of the economic quality of future human capital. While AI-supported educational applications and smart toys have the potential to improve the quality of education by responding to children's individual

learning needs, inequalities in access to these tools can undermine equal opportunities in education. While children from wealthy families have access to more advanced AI-supported education, children from low-income families may be left behind, which could increase inequalities in the future labour market (Kumar et al., 2024). Therefore, investments in AI-supported education are critical factors that shape the economic potential of individuals and the country in the long term. The economic burden of ageing populations is highlighting the role of artificial intelligence in care services. In countries with large elderly populations, such as Japan and some European countries, AI-supported monitoring systems and companion robots offer the potential to reduce the cost of elderly care and ease the burden of care on family members (Yang, 2022; Khan et al., 2024). This situation can have a positive impact on family income, particularly by facilitating the participation of female caregivers in the workforce. However, the risk of reducing human contact and the ethical costs of these technologies are critical issues that must be carefully evaluated alongside the pursuit of economic efficiency.

In the Turkish context, the effects of artificial intelligence on family dynamics are shaped by unique macroeconomic conditions and socio-cultural structures. Due to the effects of high inflation and negative real interest rates, Turkish households tend to turn to physical assets, including technological products, to protect their savings. This situation increases the demand for smart home technologies and AI-supported devices, creating a new market for technology companies (Çolak, 2023). However, income inequalities and digital literacy gaps may prevent the economic benefits of AI technologies from being distributed equally among families in Turkey. Strong family ties and intergenerational living emerge as both a facilitator (young people helping older people adapt to technology) and an obstacle (privacy concerns) in the adoption of artificial

intelligence. Although Turkish academic literature has not yet reached a global level of intensity on these issues, the product development and market strategies of local technology companies in particular directly affect families' interaction with AI (Dalgıç-Tetikol et al., 2023).

In conclusion, the effects of artificial intelligence on family cohesion present both economic opportunities and serious challenges in Turkey, as they do worldwide. Findings on the contributions of artificial intelligence to household productivity and individual economic freedom in developed economies (e.g., the US, EU) offer potential for Turkey, but Turkey's unique dynamics, such as high inflation, the digital divide, and strong family ties, differentiate this interaction. Turkey must develop specific policies to maximise the economic benefits of AI (labour force participation, cost savings) while avoiding exacerbating digital inequality and undermining family communication. Future research should focus on the long-term effects of AI on Turkish families' economic behaviour, consumption patterns, and welfare levels, enabling policymakers to ensure sustainable economic development while preserving family cohesion in the AI era.

4. The positive and negative impacts of artificial intelligence on families

The integration of artificial intelligence technologies into households and individual living spaces has become a decisive force in the global economy and family dynamics as of 2025. A wide range of artificial intelligence applications, from smart home systems to personalised education algorithms, robotic cleaners to smart health trackers, are deeply affecting families' economic functions such as time management, consumption habits and even value transfer. The family is a fundamental building block that contributes to economic growth as a consumption unit and directly affects macroeconomic performance through labour supply and social capital production. In this

context, the influence of artificial intelligence on family life has the potential to shape both the economic well-being of families and overall social cohesion (Cugurullo et al., 2023; Karaş, 2024).

The positive economic implications of artificial intelligence on family dynamics are being studied with increasing interest in the literature. Smart home automation systems and domestic robots reduce the burden of routine household chores (cleaning, meal preparation), thereby providing significant amounts of "free time" for working parents and caregivers. This time savings can positively contribute to family income by increasing individuals' participation in the paid labour force or creating opportunities for quality family interaction. Artificial intelligence-supported platforms that offer remote work and education opportunities reduce transportation costs while offering the potential to increase women's permanence in the labour market and access new economic opportunities by overcoming geographical constraints (Klimczuk, 2024; Wen et al., 2025). Financial AI tools can lead to direct economic savings by optimising family budget management, reducing energy consumption, or enabling more informed investment decisions. Families in the US and Western Europe are among the first to benefit from these AI-driven efficiency gains.

The positive impact of artificial intelligence on family unity is not limited to economic efficiency; it is also evident in human capital and health. Artificial intelligence-supported personalised learning applications improve the quality of education by adapting to children's learning styles, which contributes to the creation of a more qualified workforce and economic growth in the long term. For example, state-supported digital learning initiatives in countries such as Singapore encourage investment in human capital in this way (Taniguchi & Yamada, 2022). Similarly, AI-supported health monitoring devices and telemedicine applications monitor the health status of family members,

enabling early diagnosis and thereby reducing potential long-term healthcare costs. This improves the quality of life for elderly or chronically ill family members while alleviating the economic and emotional burden on caregivers.

However, the negative implications of artificial intelligence technologies on family economies and cohesion are also clearly addressed in the literature. The high costs of AI-enabled devices and subscription-based services can deepen digital inequality by creating a significant economic burden, especially for low-income families. In developing countries or low-income areas of developed countries, disparities in access to technology limit access to information and new economic opportunities, reinforcing existing economic inequalities (Eloundou et al., 2023). This situation leaves families facing the pressure to keep up with constantly evolving technology, potentially leading to additional financial stress and debt.

Data privacy and security are another critical dimension in terms of the economic impacts of artificial intelligence on family dynamics. Personal and family data collected through smart home devices and applications represent significant economic value for technology companies and create new business models through data monetisation. However, this situation carries the risk of data breaches, creating direct economic costs for families, such as identity theft and financial fraud (Varriale et al., 2025). Additionally, biases in artificial intelligence algorithms (e.g., in credit applications or hiring processes) can lead to economic exclusion, negatively impacting family well-being and deepening existing socio-economic inequalities. Regulations such as the GDPR in the European Union aim to reduce these economic and ethical risks, but how the data economy should be managed on a global scale remains a subject of considerable debate (Hanna et al., 2025).

Social isolation and the erosion of human capital can create indirect but significant negative economic repercussions of artificial intelligence. Increased screen time among family members and behaviours such as 'phubbing' (ignoring others because of being preoccupied with one's phone) can weaken emotional bonds by reducing face-to-face communication (Szondy & Magyary, 2025). There are discussions about the potential decline in social skills and emotional intelligence in children who are exposed to excessive artificial intelligence interaction. Although there is no direct economic cost, weakened social capital and reduced emotional intelligence may negatively affect collaboration and innovation skills in the future labour market, which in turn may lead to indirect economic losses in terms of social productivity and welfare in the long run. In highly digitalised societies such as South Korea and Japan, in-depth analyses are being conducted on these social interaction issues (Mittermaier et al., 2023).

In the context of Turkey, the effects of artificial intelligence on family dynamics are shaped by unique macroeconomic conditions and socio-cultural structures. Due to the impact of high inflation and negative real interest rates, Turkish households tend to turn to physical assets, including technological products, to protect their savings. This situation is increasing demand for smart home technologies and AI-enabled devices, creating a new market for technology companies (Koseoglu et al., 2021; İlhan et al., 2025). While there has been an increase in investment in smart home systems and AI-enabled educational applications, particularly among urban middle- and upper-income groups, access to these technologies remains limited in rural and low-income areas, thereby further widening the digital divide. Although AI-powered platforms have become widespread among Turkish families with the rise of remote work and education during the pandemic, strong family ties and expectations for

interactive communication differentiate AI's potential to reshape social roles (Hur and Abner, 2024).

In conclusion, the effects of artificial intelligence on family cohesion present both economic opportunities and serious challenges in Turkey, as they do worldwide. Findings in the global literature on the contributions of artificial intelligence to household productivity and individual economic freedom in advanced economies (e.g., the United States, the European Union) offer potential for Turkey, but Turkey's unique dynamics, such as high inflation, the digital divide, and strong family ties, differentiate this interaction. The perception of artificial intelligence as an “inflation hedge” adds an important economic dimension specific to Turkey, but the risk of deepening digital inequality should not be overlooked. Studies analysing the effects of artificial intelligence on families in Turkey that incorporate these local socio-economic dynamics are critical for policymakers and families alike to ensure sustainable economic development while preserving family integrity in the age of AI.

5. Conclusion

The complex and multi-dimensional effects of artificial intelligence technologies on family cohesion have been demonstrated. Artificial intelligence has significant positive implications, such as reducing the burden of household chores, improving the quality of education, and reducing the burden of care, which have the potential to increase families' time efficiency and economic well-being. However, it also carries serious negative consequences such as deepening digital inequality, privacy violations, algorithmic biases, and the risk of social isolation. This dual impact is particularly pronounced in countries like Turkey, which are both quick to adapt to technology and have unique socio-economic dynamics. As a result, the impact of artificial intelligence on families is a critical area that requires strategic policy recommendations and practical

implications. In this context, the primary goal of policymakers should be to ensure equitable access to artificial intelligence technologies and to close the digital divide (Duanmu et al., 2025). Governments should develop subsidy programmes for affordable internet access and basic AI-enabled devices for low-income families. In addition, comprehensive national education programmes should be designed to ensure that individuals of all ages acquire basic digital literacy and AI usage skills. These programmes will accelerate the integration of families in both urban and rural areas into the digital economy and enable broader segments of the population to benefit from the economic opportunities offered by artificial intelligence. Otherwise, artificial intelligence technologies risk exacerbating existing economic inequalities.

Artificial intelligence also plays a vital role in protecting family privacy and data security. Policymakers should implement strong data protection laws (such as updating Turkey's KVKK in the context of artificial intelligence) to protect children and sensitive personal data (Yılmaz, 2025). Binding regulations incorporating ethical AI design, transparency, and accountability principles should be introduced for companies developing AI systems. To establish consumer trust and prevent economic abuse, regular and independent audits of AI algorithms targeting families should be encouraged. These steps will remove potential barriers to digitalisation by enabling families to embrace artificial intelligence technologies with greater confidence.

Promoting the balanced and human-centred use of artificial intelligence within the family is another important policy area. To combat excessive screen time and digital addiction, awareness of healthy digital habits should be raised through public service announcements and educational campaigns. Digital citizenship and artificial intelligence literacy courses should be integrated into school curricula so that children can learn about the benefits and risks of

artificial intelligence at an early age. Technology developers should be encouraged to design AI tools that support face-to-face communication between family members and enrich family interactions. This approach will reduce the negative effects of artificial intelligence on human capital while also strengthening the social and emotional well-being of families.

In terms of practical implications, families need to take a proactive role in the age of artificial intelligence. Families should establish common rules regarding the use of AI devices at home and screen time, viewing technology not only as a consumption tool but also as a tool for learning and connecting. Parents should support their children's interest in AI educational tools while also taking care to balance their social and emotional development. For educators, emphasising critical thinking and AI ethics when integrating AI into their curricula is of great importance in preparing students for the AI-focused workforce of the future. In this process, a good understanding of the economic costs and benefits of AI will enable informed decisions to be made in household budgeting.

There are significant gaps in the existing literature for future research. In particular, there is an urgent need for studies on the long-term and large-scale empirical effects of artificial intelligence on family cohesion in the context specific to Turkey. The economic and social implications of artificial intelligence on different socio-economic strata (urban/rural, low/high-income families) and family types (nuclear, extended family) of Turkish families should be examined in depth (İbrahimi, 2025). A quantitative analysis of the real costs and benefits of artificial intelligence technologies on household budgets could provide a more concrete basis for policy recommendations.

Additionally, there is a need for qualitative and mixed-method studies that demonstrate how Turkey's strong family bonds, intergenerational living practices, and cultural values differentiate the adoption processes of artificial

intelligence technologies and family interactions. It should be thoroughly investigated whether artificial intelligence truly transforms traditional gender roles in areas such as elderly care, child education, and housework, or whether it merely reinforces them. Evaluating the impact of local regulations on artificial intelligence (e.g., personal data protection, ethical rules) on Turkish families' perceptions of privacy and security concerns is also a critical area of research. Ultimately, it is of great importance that the academic world, policymakers, technology developers, and civil society work together to ensure that artificial intelligence technologies become a tool that supports family unity and well-being rather than threatening it.

Çıkar Çatışması Bildirimi:

Yazarlar, bu makalenin araştırılması, yazarlığı ve / veya yayınlanmasına ilişkin herhangi bir potansiyel çıkar çatışması olmadığını beyan etmektedir.

Destek/Finansman Bilgileri:

Yazarlar, bu makalenin araştırılması, yazarlığı ve / veya yayınlanması için herhangi bir finansal destek almadıklarını beyan etmektedir.

Etik Kurul Kararı:

Bu araştırma için etik kurul kararına ihtiyaç olmadığını beyan etmektedir.

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GENİŞLETİLMİŞ ÖZET

Giriş

Yapay zekâ 2025 yılına kadar insan yaşamının neredeyse her yönüne nüfuz eden dijital çağın en dönüştürücü güçlerinden biri olarak duruyor. Gelişmiş akıllı ev sistemleri ve kişisel asistanlardan gelişmiş eğitim teknolojilerine ve sağlık hizmetlerine kadar AI, günlük rutinleri, iletişim kalıplarını ve bilgi erişimini derinden etkiler. Toplumun en temel birimi olan aile, bireysel sosyalleşme, duygusal gelişim ve genel refah için vazgeçilmezdir. AI'nın yaygın olarak benimsenmesi göz önüne alındığında hem avantajlı fırsatları hem de doğal riskleri göz önünde bulundurarak, aile dinamikleri üzerindeki potansiyel etkisini bütünsel olarak değerlendirmek kritik önem kazanmıştır. İlk bakışta, AI aile birliğini ve işlevselliğini destekliyor gibi görünüyor. Akıllı ev cihazları ev yüklerini hafifletir, ebeveynlere boş zaman kazandırırken, uzaktan çalışma ve eğitim olanakları coğrafi bölünmelerde ailesel bağlantıyı kolaylaştırır. Bununla birlikte, AI'nın aile dinamikleri üzerindeki etkisi, algılanan faydalarının ötesinde ciddi endişeleri de beraberinde getirmektedir. Aşırı ekran süresi ve sanal ve gerçek dünyalar arasındaki sınırların bulanıklaşması, özellikle çocuklarda ve ergenlerde sosyal beceri gelişimini olumsuz yönde etkileyebilir.

Yöntem

Bu çalışmada, yapay zekâ ve aile dinamikleri arasındaki karmaşık ilişki üzerine mevcut araştırmaları sistematik olarak sentezlemek için kapsamlı bir araştırma yapılmaktadır. Metodoloji birkaç temel aşamayı kapsar. Öncelikle, sosyal bilimler, teknoloji etiği, çocuk gelişimi, gerontoloji ve ekonomi alanındaki akademik yayınları kapsayan kapsamlı bir literatür taraması yapıldı. İnceleme, özellikle küresel bir bakış açısı sağlamak için çeşitli coğrafi bölgelerden yapılan çalışmaları inceleyerek, en yeni ve ilgili içgörülerin dahil edilmesini sağlamak için 2018'den 2025'e kadar çağdaş referansları içeriyordu.

İkincisi, sentezlenen içgörülere dayanan kapsamlı bir kavramsal çerçeve geliştirildi. Bu çerçeve, AI'nın aile bütünlüğü üzerindeki çok yönlü etkilerinin incelendiği, iletişim kalıpları, karar verme süreçleri, bakım verme sorumlulukları, çocukların sosyalleşmesi, ekonomik refah ve gizlilik endişeleri gibi boyutları kapsayan kritik bir analitik mercek olarak hizmet eder. Üçüncüsü, Türkiye'ye odaklanan özel bir bağlamsal analiz yapıldı. Bu, yüksek akıllı telefon penetrasyonu, COVID-19 sonrası dijital entegrasyonun hızlanması, mevcut kentsel-kırsal bölünmeler ve geleneksel cinsiyet rolleri gibi benzersiz sosyo-ekonomik ve kültürel faktörlerin AI benimsenmesini ve Türk aileleri içindeki etkilerini nasıl şekillendirdiğini anlamak için belirli Türk akademik çalışmalarını ve raporlarını incelemeyi içeriyordu. Dördüncü olarak, çalışma, AI'nın hem yararlı sonuçlarını (örneğin, gelişmiş üretkenlik, zaman verimliliği, kişiselleştirilmiş eğitim, azaltılmış bakım yükü) hem de zararlı sonuçlarını (örneğin, artan dijital eşitsizlik, gizlilik riskleri, algoritmik önyargılar, sosyal izolasyon ve sosyal becerilerin potansiyel erozyonu) sistematik olarak kategorize eden ve analiz eden ikili bir etki değerlendirmesi kullandı. Son olarak, araştırma politika ve gelecekteki araştırma yönelimleriyle sonuçlandı.

Bulgular

Mevcut literatürün kapsamlı analizi, yapay zekâ entegrasyonunun aile yaşamına karmaşık ve ikili bir etkisini ortaya koymakta ve Türk bağlamında ortaya çıkan belirli nüanslar ortaya çıkmaktadır. Olumlu bulgular, AI teknolojilerinin hane halkı verimliliğini önemli ölçüde artırdığını ve aile ekonomik refahının artmasına yol açabileceğini göstermektedir. Akıllı ev otomasyonu ve ev robotları, çalışan ebeveynler ve bakıcılar için işgücü katılımını artırabilecek veya kaliteli aile etkileşimi için fırsatlar yaratabilecek değerli "serbest zaman" yaratarak rutin işlerin yükünü açıkça azaltır. Uzaktan çalışma ve eğitim için AI destekli platformlar, ulaşım maliyetlerini düşürür ve özellikle kadınlar için ekonomik

fırsatları genişletir. Finansal AI araçları, optimize edilmiş bütçe yönetimi, azaltılmış enerji tüketimi ve bilinçli yatırım kararları yoluyla doğrudan ekonomik tasarruflara katkıda bulunur. Bununla birlikte, önemli olumsuz etkiler de tespit edildi. AI cihazlarının ve hizmetlerinin yüksek maliyeti, özellikle düşük gelirli aileler için dijital eşitsizliği derinleştirerek ve bilgi ve fırsatlara erişimi sınırlandırarak mevcut sosyo-ekonomik eşitsizlikleri güçlendirerek önemli bir ekonomik yük oluşturur.

Türk ebeveynler, AI destekli eğitimi büyük ölçüde olumlu görüyor ancak ekran süresi ve içeriği ile ilgili derin endişeleri dile getiriyor. AI'nın kadınların ev iş yükünü nominal olarak azaltma yeteneğine rağmen, Türkiye'deki geleneksel cinsiyet rolleri büyük ölçüde devam ediyor ve AI'nın dönüştürücü bir güçten daha destekleyici bir araç olarak hareket ettiğini gösteriyor. Dijitalleşmenin ergenlerin refahı ve iletişim kalitesi üzerindeki etkisi önemlidir; AI destekli sosyal medya yüz yüze zamanı azaltabilirken, video görüşmeleri gibi iletişim araçları uzak aile bağlarını korur. Türk ailelerinin değişen dijital okuryazarlık ve gizlilik algıları, benzersiz aile yapıları ve bölgesel farklılıkların yanı sıra, AI'nın iletişim, çocuk yetiştirme, yaşlı bakımı ve finansal yönetim üzerindeki etkileri üzerine kültürel açıdan hassas, uzun vadeli ampirik çalışmalara duyulan ihtiyacı vurgulamaktadır.

Sonuç ve Tartışma

Bu çalışma, yapay zekâ teknolojilerinin aile uyumu üzerindeki karmaşık ve çok boyutlu etkilerini kapsamlı bir şekilde ortaya koymuş, özellikle Türkiye'nin farklı sosyo-ekonomik ve kültürel peyzajı içinde hem önemli ekonomik fırsatlar hem de önemli zorluklar ortaya koymuştur. AI, ev işlerini düzene sokma, eğitim deneyimlerini zenginleştirme ve bakım veren yükleri hafifletme kapasitesi, aile zaman verimliliğini ve ekonomik refahı arttırmak için önemli bir potansiyel sunmaktadır. Bununla birlikte, bu faydalar, dijital eşitsizliğin alevlenmesi,

mahremiyete yönelik derin tehditler, algoritmik önyargıların ince ancak yaygın etkisi ve artan sosyal izolasyon riski de dahil olmak üzere ciddi olumsuz sonuçlarla ayrılmaz bir şekilde bağlantılıdır.

Bulgular, AI'nın daha gelişmiş ekonomilerde gözlemlendiği gibi hane halkı verimliliğini artırabileceğini ve bireysel ekonomik özgürlükleri teşvik edebileceğini vurgularken, Türkiye'nin belirli bir bağlamı Yüksek enflasyon, kalıcı bir dijital bölünme ve sağlam aile bağları ile işaretlenmiş—farklı zorluklar ve nüanslı etkileşimler ortaya koyuyor. Türk hanelerinin "şişirme çit" olarak teknolojik ürünler edindikleri gözlemi, AI'nın benimsenmesine benzersiz bir ekonomik boyut katıyor, ancak bu eğilim aynı zamanda mevcut dijital eşitsizlikleri derinleştirme riski taşıyor. Analiz, AI'nın ev işi gibi alanlarda nominal olarak iş yüklerini azaltabildiğini, ancak AI'nın gerçekten dönüştürücü bir güçten ziyade destekleyici bir araç olarak daha fazla hareket ettiğini öne sürerek, Türk aileleri içindeki geleneksel cinsiyet rollerini temelde bozmadığını ortaya koymaktadır (Hur ve Abner, 2024). Ayrıca, AI'nın kişiselleştirilmiş öğrenme yararları ile ekran süresi üzerindeki ebeveyn endişeleri arasındaki gerilim ve AI destekli yaşlı bakımında insan etkileşiminin azaltılmasını çevreleyen etik ikilemlerin yanı sıra çocukların sosyal ve duygusal gelişimi üzerindeki etkisi, toplu olarak AI entegrasyonuna titizlikle dengeli bir yaklaşım gerektirmektedir.

Sonuç olarak, bu çalışma, özellikle AI alanında teknolojik ilerlemenin, insan refahını arttırma ve aile birliğini güçlendirme temel hedefleriyle özünde uyumlu kalmasını sağlamanın aciliyetinin ve büyük öneminin altını çizmektedir. Proaktif politika önlemleri, titizlikle bilgilendirilmiş araştırmalar ve bilinçli aile seçimleri, AI'nın sürekli gelişen dijital çağda dayanıklı, müreffeh ve uyumlu aileleri teşvik eden kalıcı toplumsal iyilik için dönüştürücü gücünü kullanmak için vazgeçilmezdir.