

A Netnographic Analysis of ChatGPT Usage in Technology Forums in The Context of Society 5.0

Toplum 5.0 Çerçevesinde Teknoloji Forumlarında ChatGPT Kullanımı Üzerine Netnografik Bir Araştırma

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ABSTRACT

This study investigates the societal impacts and user perceptions of generative AI technology in the context of Society 5.0, with a specific focus on ChatGPT, using a netnographic approach. Society 5.0 offers a vision that aims to integrate technology into all aspects of society in a human-centric manner. In this context, by analyzing discussions on two prominent Turkish technology forums, Technopat and Donanımhaber, the research aims to understand how ChatGPT is perceived in society, users' experiences with the tool, and its ethical implications. The data collection involved observing user-generated content on these platforms, followed by a netnographic analysis to identify key insights. The findings indicate that ChatGPT is widely utilized in fields such as education, work, professional tasks, and entertainment, thereby contributing to the technology-driven, human-centric lifestyle goals envisioned by Society 5.0. However, users also expressed notable concerns about issues such as data security, privacy, and ethical considerations, underlining the dual nature of its societal impact. This study contributes to the understanding of how generative AI tools like ChatGPT are shaping user behaviors and societal norms. Moreover, it provides valuable recommendations to marketing practitioners and academics on the ethical integration of such technologies into business practices and the marketing discipline in alignment with the vision of Society 5.0.

JEL Codes: M31, M15, O14.

Keywords: ChatGPT, Generative Artificial Intelligence, Society 5.0, Netnography

Öz

Bu çalışma, üretken yapay zekâ teknolojisinin, özellikle ChatGPT'nin, Toplum 5.0 bağlamında toplumsal etkilerini ve kullanıcı algılarını netnografik bir yaklaşımla incelemektedir. Toplum 5.0, teknolojinin insan merkezli bir şekilde toplumun her alanına entegre edilmesini hedefleyen bir vizyon sunar. Bu bağlamda, araştırma Türkiye'nin önde gelen teknoloji forumları olan Technopat ve Donanımhaber'deki tartışmaları analiz ederek, ChatGPT'nin toplumda nasıl algılandığını, kullanıcı deneyimlerini ve bu teknolojinin etik boyutlarını anlamayı amaçlamaktadır. Veri toplama süreci, bu platformlardaki kullanıcı tarafından oluşturulan içeriklerin gözlemlenmesini ve ardından netnografik analiz yöntemiyle temel bulguların belirlenmesini içermektedir. Elde edilen sonuçlar, ChatGPT'nin eğitim, profesyonel görevler ve eğlence gibi çeşitli alanlarda yaygın bir şekilde kullanıldığını, bu yönüyle Toplum 5.0'ın teknolojiye dayalı, insan odaklı yaşam hedeflerine katkı sağladığını göstermektedir. Bununla birlikte, kullanıcılar tarafından veri güvenliği, gizlilik ve etik ile ilgili önemli endişeler dile getirilmekte, bu da teknolojinin toplumsal etkisinin çift yönlü olduğunu ortaya koymaktadır. Bu çalışma, üretken yapay zekâ araçlarının, özellikle ChatGPT'nin, kullanıcı davranışlarını ve toplumsal normları nasıl şekillendirdiğine dair önemli bir anlayış sunmaktadır. Ayrıca, bu tür teknolojilerin Toplum 5.0 vizyonuna uygun şekilde iş dünyası ve pazarlama disiplinine etik bir şekilde entegre edilmesi konusunda pazarlama uzmanlarına ve akademisyenlere değerli öneriler sağlamaktadır.

JEL Kodları: M31, M15, O14.

Anahtar Kelimeler: ChatGPT, Üretken Yapay Zekâ, Toplum 5.0, Netnografi

Introduction

The rapid development of artificial intelligence (AI) technologies represents a transformative phase in how individuals and businesses interact with digital tools. Among these advancements, generative AI models, especially ChatGPT, have emerged as transformative applications that are changing the landscape of communication, creativity, and problem-solving methods. AI transforms traditional marketing practices and enables hyper-personalized customer experiences, making it a cornerstone of modern business strategies (Davenport et al., 2020).

ChatGPT is reshaping how businesses approach customer experiences and strategies by boosting individual efficiency. This aligns with a strategic framework, which emphasizes that AI-driven tools can create dual value, enhancing operational efficiency and delivering superior customer experiences through innovation (Huang & Rust, 2021).

Alongside these advancements, the incorporation of AI into everyday life signifies a profound transformation. Society 5.0, a visionary framework developed in Japan, offers a significant context for understanding the role of generative AI in shaping the future. Society 5.0 integrates physical and digital spaces through advanced technologies to address societal challenges and improve quality of life (Fukuyama, 2018). Within this framework, generative AI serves as an enabler for achieving human-centered innovation while simultaneously raising ethical concerns about its application.

Despite the proliferation of generative AI tools like ChatGPT, there is limited understanding of how users perceive and utilize these technologies in their daily lives, particularly within the context of Society 5.0. Studies reveal that generative AI systems, especially large-scale models like GPT-3, are reshaping communication by enabling nuanced, human-like text generation (Brown et al., 2020). However, the societal impacts of these innovations remain underexplored, particularly in diverse cultural and technological contexts (Villiers, 2024).

This study explores the societal impacts and user experiences of generative AI, focusing specifically on ChatGPT, through a netnographic methodology. The research uncovers valuable insights into user expectations, trust dynamics, and emerging behavioral trends by

analyzing discussions on Turkish technology forums such as Technopat and Donanımhaberi, which host vibrant and tech-savvy communities.

Addressing a notable gap in the literature, this study examines the intersection of generative AI and Society 5.0 from a user-centric perspective. By leveraging netnography, it provides empirical evidence on how users perceive the benefits and challenges of generative AI in diverse contexts such as education, work, and entertainment. For example, it is argued that understanding user perspectives is critical to unlocking the full potential of AI technologies while ensuring their ethical integration into society (Dong & McIntyre, 2014). This research also aims to answer critical questions: How do consumers integrate generative AI into their routines? What ethical and practical challenges arise from its use? How can these insights inform the development of marketing strategies that are both effective and ethically sound?

In conclusion, the results of this study are significant for both theoretical and practical purposes, especially in the field of marketing. From a theoretical perspective, it deepens the understanding of how generative AI influences consumer behavior and marketing within the framework of Society 5.0. Practically, it provides strategic insights for businesses on navigating the ethical and societal challenges of AI-driven transformations to meet consumer needs effectively. In an era marked by rapid AI integration, this research underscores the importance of harmonizing technological innovation with human-centered progress, ensuring that AI serves as a tool for both societal and business advancement.

Literature Review: Theoretical Structure about Society 5.0, Generative AI and ChatGPT

The concept of Society 5.0 was initially proposed by the Japanese government in 2016 as part of the "Fifth Science and Technology Basic Plan" and recognized it as a key component of the "Future Strategy for 2017: Society 5.0 Reform" (Fukuyama, 2018, p. 47). Known as a "super-smart society," Japanese Prime Minister Shinzo Abe unveiled the concept of Society 5.0 in 2017. Shinzo Abe stressed that technology should be seen as an enabler rather than a danger to societies when he outlined the ideology of Society 5.0 (Fukuda, 2020, p. 220). This model indicates a conception of society transformed under the leadership of science and technology, leveraging the opportunities offered by Industry 4.0 and digitalization

(Akin et al., 2021).

The evolution of society is outlined through four key stages (Fukuyama, 2018). Society 1.0, the hunter-gatherer phase, was characterized by small, mobile communities reliant on natural resources. The Agricultural Revolution led to the emergence of Society 2.0, where settled farming became the foundation of economic and social structures (Schwab, 2016). The Industrial Revolution initiated the Society 3.0, marked by mechanization, mass production, urbanization, and economic growth (Schwab, 2016). The advent of information technologies brought about Society 4.0, where digitalization and information became central to economic and social structures, driving globalization and connectivity (Fukuyama, 2018).

Building on this digital transformation, Society 5.0 emphasizes the utilization of advanced technologies not only for economic growth but also to address social welfare and environmental sustainability (Cabinet Office, Government of Japan, 2017). Unlike previous phases, Society 5.0 adopts a human- and society-centered approach, aiming to harness digital transformation to enhance human happiness and societal well-being (Fukuyama, 2018). This vision for growth and development, rooted in Japan, addresses the shortcomings of Industry 4.0, particularly the failure to prioritize human-centered approaches and value creation (Eren, 2019).

Disruptive technological innovations drive significant changes in societal lifestyles, consumer demands, and the operations of businesses and industries, thereby supporting the vision of Society 5.0. Today, the Internet of Things (IoT), Big Data, and Artificial Intelligence (AI) are among the most prominent examples of such disruptive technological innovations (Soni et al., 2020). The potential impacts of these technological advancements involve fundamental shifts in our behavioral patterns and daily routines. Among these technologies, AI emerges as the most widely utilized innovation. Generative AI, such as ChatGPT, contributes in various ways to achieving the objectives of Society 5.0 (Wang et al., 2023). ChatGPT provides enhanced personalized recommendations to users based on their individual needs.

As the role of AI continues to expand, generative AI models like ChatGPT have the potential to play a transformative role in sectors such as healthcare, education, and communication, directly supporting the goals of Society 5.0. In healthcare, AI-driven tools can provide personalized treatment recommendations and

assist in diagnostic processes, leading to more efficient healthcare delivery (Wang et al., 2023). Similarly, in education, AI can facilitate personalized learning experiences, adapting content to the needs and progress of individual students, thus fostering a more inclusive and accessible educational system (Fukuyama, 2018). Additionally, in communication, AI models like ChatGPT can bridge communication gaps, improve interaction quality, and streamline information sharing, all of which contribute to more efficient societal functioning (Cabinet Office, Government of Japan, 2017).

Furthermore, generative AI tools can be instrumental in fostering social welfare by promoting equitable access to information and services. By automating tasks, enhancing decision-making processes, and enabling greater engagement through digital platforms, AI technologies can reduce disparities in access to resources, particularly in underserved communities. In line with the human-centered approach of Society 5.0, such innovations are crucial for building a more inclusive, sustainable, and prosperous society, where technology is not only a driver of economic growth but also a means to improve the quality of life for all members of society (Cabinet Office, Government of Japan, 2017; Fukuyama, 2018).

Methodology

Research Design and Data Collection

This study employs netnography, a qualitative research method, to evaluate comments and posts about ChatGPT on two prominent technology forums in Türkiye. Netnography adapts traditional ethnographic techniques to the distinct nature of online environments (Varnalı, 2013). Netnography, which involves analyzing data from virtual environments, offers certain advantages compared to its classical counterpart, ethnography. Individuals tend to share their opinions more freely in virtual environments compared to real-life interactions (Cebeci & Küçükkancabaş, 2018). Furthermore, virtual platforms enable rapid access to individuals who would otherwise be challenging to reach in person on specific topics through publicly available online resources (Sandlin, 2007). Kozinets (2002, p. 62) describes netnography as "a novel qualitative methodology that facilitates the study of cultures and communities through computer-mediated communications, integrating ethnographic research techniques". According to Kozinets (2006, p. 286), two main reasons for selecting netnography method are that netnography enables researchers to assume an "invisibility cloak" and it allows for the examination of user

interactions without causing disruption. Given that ChatGPT is a technological innovation and the data were collected from online technology forums, netnography method aligns well with this study's objectives.

Data Collection and Sampling Criteria

Data were collected from two of Türkiye's most popular technology forums, Technopat and Donanimhaber, known for their active, tech-savvy user communities. These platforms selected based on the following inclusion criteria:

- Forums must have an active user base discussing technological advancements.
- Discussions must explicitly reference ChatGPT or include it within broader discussions on generative AI.
- Posts must be publicly accessible to ensure ethical compliance.

Exclusion criteria were as follows:

- Posts unrelated to ChatGPT or generative AI.
- Duplicate content appearing in multiple threads. Posts with irrelevant or off-topic discussions that do not contribute to the research objectives.

Technopat and Donanimhaber were chosen for their vibrant user communities and a broad range of technology-focused discussions. These platforms attract tech-savvy individuals, making them well-suited for gathering knowledgeable perspectives on generative AI tools. Comments and posts about ChatGPT were analyzed between March and October 2024, a period marked by heightened interest in ChatGPT due to its widespread adoption, the release of new versions, and significant media attention. The data consisted of comments and posts made on these two forums about ChatGPT, spanning from ChatGPT's launch in November 2022 to October 2024. Forum threads (a series of messages or posts centered around a specific topic on a forum or social media platform) explicitly referencing ChatGPT were identified. Additionally, posts discussing generative AI, in general, were included if they specifically mentioned the word "ChatGPT". A total of 120 threads were reviewed in two forums. To refine the data set, keywords such as "ChatGPT", "generative AI", "AI chatbot", and "OpenAI" were used to filter relevant threads and posts.

The final dataset consisted of 400 selected posts, which were manually to ensure contextual relevance. Posts were systematically copied, categorized, and coded by the

researchers based on their content. The manual selection process allowed for a more nuanced understanding of user discussions, ensuring that post met the predefined inclusion criteria.

Data Categorization

The selected 400 posts were systematically categorized based on their content and context to provide a structured analysis:

- 30% were initial user questions, focusing on inquiries about ChatGPT's features, capabilities, and potential applications.
- 40% consisted of follow-up discussions elaborating on these initial questions or adding further insights.
- 30% included user-generated reviews, critiques, and experiences regarding ChatGPT's real-world applications.

The selection ensured a diverse range of perspectives and topics related to ChatGPT's use across various domains such as education, work, and entertainment. To ensure ethical compliance, all user data were anonymized, and only publicly available posts were analyzed. Consent was deemed implicit as per the ethical guidelines for netnographic research, considering that data were collected from publicly accessible platforms. Also, Ethics Committee approval of the research was received by the decision of Marmara University Social Sciences Research Ethics Committee Presidency dated 07.03.2024 and numbered 2024-4/5 and users' consent have been received.

Analytical Framework: Coding and Thematic Analysis

The analysis was conducted in four stages, adhering to the guidelines established by Strauss & Corbin (1990), Miles & Huberman (1994), Herring (2004), and Kozinets (2015). The first stage includes the examination of the demographic and digital identities of users (e.g., age, profession, levels of experience) and how users presented themselves on the forums. As a second stage, posts were analyzed to identify themes related to the purposes for which users employed ChatGPT. In the third stage, attitudes toward ChatGPT were categorized as positive, negative perspectives, with additional attention to ethical and security concerns. In the last stage, broader perceptions of ChatGPT's impact on various domains were analyzed. An iterative coding process was applied to classify the posts. Initial open coding was performed to

identify prominent themes, followed by axial coding to establish relationships between themes.

To minimize researcher bias, several measures were implemented throughout the study. Three independent coders, all with expertise in qualitative research and digital communication, participated in the coding process. Two of the coders are a cybersecurity researcher with experience in AI ethics, while the third coder has a master's degree in marketing and specializes in netnographic research. Each coder independently reviewed subsets of the data to ensure consistency and reliability in the analysis process. Regular peer debriefing sessions were conducted to discuss emerging themes resolve discrepancies, and refine coding categories. Reflexivity was also maintained, with researchers documenting their assumptions and perspectives throughout the research process to enhance transparency and objectivity.

By combining systematic sampling, iterative coding, and rigorous ethical practices, this study offers a comprehensive understanding of user perceptions of ChatGPT. These insights are positioned within the framework of Society 5.0, contributing to a deeper exploration of the intersection between generative AI technologies and human-centered innovation.

Results

Demographic and Digital Identities of Users

A comparative netnographic analysis of comments about ChatGPT on the Technopat and DonanimHaber forums reveals notable differences and similarities in user profiles and perceptions of ChatGPT across the two platforms. These differences are shaped by the interests, perspectives on technology, and usage purposes of each platform's user base. Table 1 below demonstrates the comparison of the demographic and digital identities of users on two forums.

Table 1. *Demographic and Digital Identities of Users*

Criteria	Technopat Users	Donanimhaber Users
Age	Between 18-30 ages, young tech-enthusiasts	Between 25-45 and 45+ ages, technical professionals
Profession	Students, new graduates, tech-hobbyists	Software engineers, technical professionals
Education	University students, new graduates	Technical educated, professional workers
Level of	Intermediate	Advanced level,

Technological Knowledge	level, tech-enthusiasts	professional knowledge
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Regarding Table 1, it is observed that Technopat users who engage with ChatGPT are predominantly younger, including students and recent graduates, whereas Donanimhaber users are primarily middle-aged, comprising working professionals and engineers.

Comparison of the Purposes for Using ChatGPT

The users' purposes for using ChatGPT have been categorized into four groups: education and research, professional use, entertainment and experimental use, and technical problem-solving. According to these four categories, users from both forums have been classified based on their usage purposes in Table 2 below.

Table 2. *Comparison of ChatGPT Usage Purposes*

Usage Purpose	Technopat Users	Donanimhaber Users
Education and Research	Preparing assignments, general information search	Professional research, software development
Professional Usage	Rarely usage, primarily for personal projects	Software, solving engineering problems
Entertainment and Exploratory Usage	Chat with Chatgpt, usage for entertainment purposes	Rarely, mostly functional use
Solving Technical Problems	Medium technical issues (gaming, hardware)	Advanced technical issues (coding, etc.)

The table compares the usage purposes of the Technopat and Donanimhaber platforms. Technopat is primarily used for educational and research purposes, such as assignment preparation and general information searches with rarely professional usage. It is also utilized for entertainment, including chatting with ChatGPT, especially more exploratory usage. Regarding technical problem-solving, Technopat users mainly use ChatGPT for medium-level issues related to gaming and hardware. In contrast, Donanimhaber is mainly used in professional purposes, such as conducting research and software development, focusing on solving advanced technical problems, including coding and engineering challenges. The platform is rarely used for entertainment, emphasizing its functional use for more specialized technical needs.

Attitudes Towards ChatGPT

Users' attitudes towards ChatGPT were analyzed in 3 categories according to their positive, negative opinions and ethical and security concerns. The analysis reveals variations in user expectations and perceptions based on the platform's context. Table 3 demonstrates attitudes of ChatGPT user on Technopat and Donanimhaber forums.

Table 3. Attitudes Towards ChatGPT

Attitudes	Technopat Users	Donanimhaber Users
Positive	Quick answers, fun and useful	Helpful for technical problems, quick solutions
Negative	Superficial answers, sometimes inaccurate information, needs to check answers	Insufficient technical details, lack of deep knowledge
Ethical&Security Concern	Low level of concern	High level of security& data privacy concern

Regarding Table 3, Technopat users appreciate ChatGPT for its fast, entertaining, and practical responses, while DonanimHaber users highlight its efficiency in solving technical problems. However, on the negative side, Technopat users criticize ChatGPT for providing superficial and occasionally inaccurate answers, whereas DonanimHaber users find it inadequate in technical details and lacking in-depth knowledge. Regarding ethical and security concerns, Technopat users show minimal concern and rarely address these issues, while DonanimHaber users express concerns related to data privacy and security.

Perceptions Towards ChatGPT

In the last stage of this research, perceptions of users towards ChatGPT are analysed. Users' perceptions are divided into six groups regarding their comments. Grouping is shown in Table 4 below.

Table 4. Perceptions Towards ChatGPT

Criteria	Technopat Users	Donanimhaber Users
Price Perception	*Paid version is valuable for professional and creative projects *Cost is perceived as a limiting factor for accessibility *Considered necessary for accessing accurate information	*Paid version is considered unnecessary or expensive *Criticized due to the alternative of free alternatives
Value Perception	*Paid versions preferred for specific professional use cases *Suitable for creative applications	*Not considered valuable enough for general users *Free alternatives are preferred
Comparison with competitors	*Advantageous for creative content generation *Limited for accurate information	*Competitors more reliable for accurate information and timeliness *Free alternatives are preferred
Usage	*Strong for creative content generation, language modelling, specific professional projects	*Insufficient for in-depth information and technical details
Information Accuracy and Timeliness	*Limited for accurate information and timeliness *Limited reliability especially for topics requiring technical accuracy	*Competitors more reliable for accurate information and timeliness *Alternative applications recommended
General Perception	*Creative but limited in accuracy *Valuable for professional and creative usage	*Free version is more attractive for professional usage and sufficient for general use *Paid version is expensive

The table reveals distinct differences in user perceptions and preferences between Technopat and Donanimhaber communities regarding ChatGPT.

Technopat users view the paid version as valuable for professional and creative projects, appreciating its utility in creative content generation and specific professional applications, despite concerns about cost and limited accuracy for technical information. In contrast, Donanimhaber users find the paid version unnecessary or expensive, often preferring free alternatives. While Technopat users acknowledge ChatGPT's strengths in creative tasks, they highlight its limitations in providing accurate and timely information. Donanimhaber users emphasize competitors' superior reliability for technical accuracy and timeliness, favoring alternative applications for professional and general use. Overall, Technopat users focus on creative and professional use cases, whereas Donanimhaber users prioritize cost-effectiveness and reliability, often opting for free or alternative tools.

Results and Discussion

In this study, netnographic analysis of ChatGPT users' comments on Technopat and Donanimhaber forums revealed significant differences and similarities in the users' demographic and digital identities, usage purposes, attitudes towards ChatGPT, and general perceptions. The findings indicate that users approach ChatGPT with different goals depending on the platform, utilizing it for various purposes and with different expectations.

The analyzed user groups exhibit platform-specific demographic characteristics and digital identities. Technopat users are generally younger, tech-savvy, and include university students or recent graduates, while Donanimhaber users tend to be older and possess more professional technical knowledge. This distinction is reflected in the way each group uses ChatGPT. Technopat users primarily engage with ChatGPT for educational and entertainment purposes, while Donanimhaber users leverage it more for professional tasks, such as solving technical problems. These findings align with previous research on AI (especially robots), which suggests that younger users tend to approach AI tools with curiosity and exploratory intent, while more experienced users emphasize functionality and assistance (Chien et al., 2019).

The findings show that Technopat users tend to use ChatGPT for educational and research purposes, while Donanimhaber users prefer it for solving professional and technical problems. Technopat users see ChatGPT more as an entertaining and exploratory tool, using it to solve mid-level technical issues related to gaming and hardware. In contrast, Donanimhaber users use ChatGPT to address more complex technical problems, such as software

development and engineering issues.

Both user groups view ChatGPT as a fast and functional tool, but they also point out some of its limitations. Technopat users appreciate ChatGPT's ease of use and accessibility, although they acknowledge that its responses can be superficial and sometimes inaccurate. In contrast, Donanimhaber users express dissatisfaction with ChatGPT's lack of in-depth technical knowledge, finding it inadequate for complex professional inquiries. Furthermore, Donanimhaber users are more concerned with data security and privacy, reflecting platform-specific attitudinal differences. These findings align with similar studies in the literature addressing future challenges related to AI integration in customer relations, such as maintaining data privacy, building consumer trust, and ensuring ethical use of AI technologies (Ledro et al., 2022). Also, similar findings have been reported in previous studies examining AI-assisted customer service, where users with high domain expertise tend to be more critical of AI-generated responses compared to general users (Huang & Rust, 2020). Additionally, this reaction of Donanimhaber users mirrors Grandey's findings in her emotional labor study (Grandey, 2004). In these studies, employees and users adapt their emotional responses to manage dissatisfaction or challenges. In this context, understanding how users emotionally engage with digital tools like ChatGPT, particularly in terms of trust and frustration, offers valuable insights into the broader process of digital transformation and user experience management. Just as service employees regulate their emotions in response to aggressive customers, users of AI tools like ChatGPT adjust their expectations and responses based on the tool's performance and limitations.

These findings provide valuable insights into ChatGPT's role in societal digital transformation. The concept of Society 5.0 emphasizes a human-centric integration of technology, where AI and digital tools are designed to enhance well-being and efficiency across different user groups (Fukuda, 2020). The varying usage patterns observed on Technopat and Donanimhaber suggest that digital transformation is not uniform but rather shaped by users' socio-demographic backgrounds, professional roles, and specific technological needs. ChatGPT on these two platforms highlights the different needs and expectations encountered in the process of digitalization. Technopat users employ ChatGPT for more creative and personal purposes, such as education and entertainment, while Donanimhaber users approach it from a more professional and technical perspective. This shows how the digitalization of society and the more efficient use of

technology are shaped by individuals' ages, education levels, and professional roles. As part of Society 5.0, these diversified digital identities reflect how different user groups customize and adapt technology and the distinct roles they play in society.

Moreover, ChatGPT's ethical and security concerns highlight the level of sensitivity society has towards digital security and the need to protect personal data. Donanimhaber users, with their more advanced technical knowledge, express higher security concerns, which are directly related to their more in-depth use of digital tools and their need for high-precision data processing. This is consistent with previous research suggesting that individuals with higher digital literacy are more likely to question AI reliability and transparency (Lupton, 2020).

In conclusion, the observed differences and similarities in ChatGPT usage highlight the diversity of societal digital transformation. Society 5.0 encompasses a broad range of users, from those who engage with technology for personal creativity and education to those who demand high-security standards and professional-grade performance. This study reveals significant differences in users' perceptions of the paid version of ChatGPT. Specifically, Technopat users find the paid version useful for professional and creative projects but perceive its cost as a barrier, while Donanimhaber users consider the paid version unnecessary and prefer free alternatives. Similar findings are noted in the literature. The availability of free alternatives in mobile applications tends to draw users' attention to these options (Sloot et al., 2005). Additionally, research has shown that free alternatives reduce the purchase rate of paid applications (Bryce et al., 2011). Even when features are limited, some users may find the free version sufficient for their needs (Arora, 2014). In this context, perceptions and preferences regarding paid and free digital services are shaped by users' needs and expectations, reflecting the multifaceted nature of societal digital transformation.

These findings suggest important recommendations for practice. For developers, improving data security is paramount. Employing more robust encryption techniques, implementing transparency in data usage policies, and fostering user trust through ethical AI practices could address security concerns. For users, enhancing digital literacy is crucial to ensure they understand AI tools' capabilities and limitations, particularly regarding privacy and security. For companies, adopting ethical practices in AI usage, especially in

customer service, could foster trust and improve service efficiency, aligning with the principles of Society 5.0, which emphasizes human-centric technology integration.

In terms of Society 5.0, these findings offer important implications. The integration of technology must consider not only technical advancements but also economic and ethical considerations. Digital technologies should be inclusive, ensuring access for all user groups, regardless of their economic or professional backgrounds.

Recommendations and Limitations

The findings of this study reveal distinct needs and usage patterns between Technopat and Donanimhaber users. Therefore, it is recommended that developers and platforms customize AI tools, such as ChatGPT, to cater to different user demographics. Adapting user interfaces and functionalities for different user groups, such as students and professionals, could enhance engagement and improve user satisfaction.

Technopat users find ChatGPT's responses fun and practical, while Donanimhaber users complain about a lack of in-depth technical information. This highlights the need to improve the AI's ability to provide more accurate, context-specific, and reliable responses. Such improvements would address the concerns expressed by both user groups.

The increased concerns of Donanimhaber users regarding data security and privacy indicate that security measures should be enhanced. In this regard, it is important for platforms to increase transparency regarding data protection measures. Clear communication about how user data is stored, processed, and utilized will foster trust and help facilitate the broader adoption of AI tools.

Technopat users perceive the cost of the paid version as a barrier, while they find ChatGPT's paid version valuable for professional and creative projects. It is recommended that AI providers review pricing models to accommodate users with different financial capabilities. This could involve offering more affordable versions for students and small businesses, as well as providing premium features for professional users.

In the context of Society 5.0, promoting digital literacy will accelerate the adoption of technology. It is important to offer workshops, tutorials, and resources to increase

digital literacy among users of different ages and backgrounds. This would enable everyone to fully benefit from the potential of AI technologies, such as ChatGPT.

This study was conducted solely on the Technopat and Donanımhaber forums. While these platforms represent different user groups, the findings may be limited in their generalizability to other online forums or social media platforms. Future studies could collect data from a wider range of platforms for a more comprehensive comparison.

The study is based on user comments from a specific time frame. Given the rapid evolution of AI tools, longitudinal studies are needed to observe how user perceptions and behaviors change over time.

The study primarily focused on users in Turkey, and the findings may be limited in their applicability to global trends. Future research could examine the impact of geographical regions, age groups, gender, and education levels on AI usage.

The study only analyzed text data. Visual, voice, and other forms of interaction could provide a broader understanding of how users engage with AI. Including such data could make future research more comprehensive.

Online data may lead users to present idealized versions of themselves, which may affect the reliability of the data. Future research could address this bias by employing observational or experimental methods.

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Geniřletilmiş Özet

Bu araştırma, yapay zekâ teknolojilerinin toplumsal dönüşümdeki rolünü ve özellikle ChatGPT'nin bu süreçteki etkilerini incelemektedir. Çalışma, Japonya'nın Toplum 5.0 vizyonunu temel alarak, teknolojinin toplumsal hayatın her alanına entegre edilmesini amaçlayan insan odaklı bir yaklaşımı ele almaktadır. Araştırmanın ana odak noktası, Türkiye'nin önde gelen iki teknoloji forumu olan Technopat ve Donanımhaber üzerindeki kullanıcı etkileşimleri aracılığıyla ChatGPT'nin nasıl kullanıldığını, kullanıcıların bu teknolojiye dair algılarını ve bu kullanımın toplumsal ve etik boyutlarını anlamaktır.

Netnografik bir metodolojiyle yürütölen bu çalışma, forumlardaki kullanıcı yorumları ve paylaşımlarını analiz ederek, ChatGPT'nin farklı alanlardaki kullanım şekillerini ortaya koymaktadır. Sonuçlar ChatGPT'nin eğitim, iş, profesyonel görevler ve eğlence gibi alanlarda yaygın bir şekilde kullanıldığını göstermektedir. Ancak, bu teknolojinin toplumsal etkilerine dair bazı endişeler de bulunmaktadır. Kullanıcılar, özellikle veri güvenliği, gizlilik, bilgi doğruluğu ve etik konularında kaygılarını dile getirmişlerdir. Çalışma, ChatGPT'nin toplumu daha teknoloji odaklı ve insan merkezli bir yapıya kavuşturma amacına hizmet ederken, aynı zamanda bu teknolojilerin bireylerin kişisel verilerini koruma ve doğru bilgi sağlama ihtiyacını da ön plana çıkardığını belirtmektedir.

Araştırma, toplum 5.0 vizyonu ile uyumlu olarak, ChatGPT'nin eğlence ve eğitim gibi kişisel ve yaratıcı alanlarda kullanımının arttığını, profesyonel ve teknik görevlerde ise verimlilik sağladığını göstermektedir. Ancak, kullanıcılar arasındaki veri güvenliği ve gizlilik endişeleri, bu teknolojilerin kabulünü sınırlayan önemli unsurlar olarak dikkat çekmektedir. Ayrıca, ChatGPT'nin ücretli versiyonunun daha değerli bulunmasına rağmen maliyetinin bir engel teşkil etmesi, dijital eşitsizlik ve ekonomik erişimle ilgili yeni tartışmaların ortaya çıkmasına neden olmaktadır. Bu bulgular, yapay zekâ araçlarının toplumsal hayata etik ve erişilebilir bir şekilde entegre edilmesi gerektiğini vurgulamaktadır.

Araştırmanın önerileri, özellikle pazarlama ve iş dünyasında yapay zekâ araçlarının etik ve şeffaf bir şekilde uygulanmasına yöneliktir. Kullanıcı arayüzlerinin farklı demografik gruplara göre özelleştirilmesi, fiyatlandırma stratejilerinin erişilebilir kılınması ve veri güvenliği ile ilgili daha fazla şeffaflık sağlanması gerektiği ifade edilmektedir. Ayrıca, dijital okuryazarlığın geliştirilmesi ve toplumun teknolojiyi daha bilinçli kullanabilmesi için eğitim programları ve kaynaklar sunulması önerilmektedir.

Sonuç olarak, bu çalışma, ChatGPT gibi yapay zekâ araçlarının toplumsal dönüşümde önemli bir yere sahip olduğunu ve bu teknolojilerin toplumsal faydayı maksimize etmek için dikkatlice yönlendirilmesi gerektiğini ortaya koymaktadır. Toplum 5.0 çerçevesinde, bu araçların hem bireysel hem de toplumsal düzeyde daha etik, verimli ve erişilebilir bir şekilde entegre edilmesi, toplumsal dönüşümün başarısı için kritik bir öneme sahiptir.