UDC 316.6:364:004.8-053.9 DOI 10.62034/2815-5300/2026-v3-001

PSYCHOSOCIAL MECHANISMS OF AI ACCEPTANCE IN SOCIAL SERVICES FOR ADULTS AND OLDER PEOPLE: TRUST, CONTROL, AND PERCEIVED USEFULNESS

Tanya Vazova[1]

[1]*PhD in Economics, Associate Professor of the Department of Social Activities at the Faculty of Pedagogy, Plovdiv University «P. Hilendarski», Plovdiv, Bulgaria*
E-mail: tvazova@uni-plovdiv.bg, ORCID: https://orcid.org/0000-0003-0768-9720

ABSTRACT. The integration of artificial intelligence (AI) in the field of social services for adults and older people has established itself as one of the dynamic and interdisciplinary areas of technological development over the last decade. This article presents a systematic and in-depth theoretical analysis of the complex psychosocial mechanisms that determine the readiness and perception of intelligent technologies—including social assistance robots, virtual agents, and adaptive interfaces—by the aging population. The study focuses on a critical review of three key psychological constructs that mediate consumer behavior: trust, perceived control, and perceived usefulness. The theoretical framework of the analysis is constructed through a synthesis of established models of technology acceptance, such as the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Technology Acceptance Model (TAM), expanded through the gerontology-specific Almere Model. Special attention is paid to psychological theories of trust, viewed as a multidimensional construct involving cognitive and affective components such as competence, reliability, and predictability of the system. The article explores the role of perceived control and autonomy as protective factors against technological anxiety and feelings of depersonalization in the human-robot interaction process. The analytical focus covers the dynamic interaction between cognitive processes and emotional experiences that modulate the long-term engagement of adult users with AI platforms. By systematizing the latest research published between 2020 and 2025, existing theoretical deficits and conceptual gaps in understanding the specific needs of older adults are identified. In conclusion, promising directions for future research are outlined and practical recommendations are made for the design of ethical, anthropocentric, and psychologically validated technological solutions aimed at improving the quality of life and social inclusion of older adults in today's digital society.

Keywords: *artificial intelligence, social robots, older adults, trust, perceived control, perceived usefulness, technological acceptance, psychosocial mechanisms*.

INTRODUCTION

Problem Statement and Relevance. The demographic aging of the population is one of the most significant social challenges of the 21st century. According to World Health Organization projections, by 2050 the number of people over the age of 60 will reach 2 billion, with a significant proportion of them requiring various forms of support and care. In this context, technologies based on artificial intelligence (AI) are seen as a potential solution to meet the growing demand for social and health services for the elderly population.

Social robots, virtual agents, and adaptive interfaces represent a new class of technological intermediaries that not only automate certain tasks but also create a qualitatively different type of interaction—social, emotionally engaging, and potentially therapeutic [1], [2]. Unlike traditional assistive technologies, AI systems have the ability to behave adaptively, recognize emotions, communicate naturally, and interact in a personalized way, which positions them as social assistants rather than mere tools [3].

Despite technological advances and growing interest in AI in adult care, empirical data show significant variability in the acceptance and use of these technologies by the target population [4], [5]. This variability cannot be explained solely by the technical characteristics or functional capabilities of the systems. On the contrary, contemporary research emphasizes the central role of psychosocial mechanisms—cognitive, emotional, and social processes that mediate the relationship between technological characteristics and behavioral intentions to use [6].

The **purpose of the article** is to analyze the psychosocial mechanisms of AI acceptance in social services for adults and older people, with particular attention to trust, perceived control, and perceived usefulness, and to identify the main theoretical gaps and promising directions for further research.

Research methodology. The methodology of the article is based on a systematic theoretical review and critical analysis of the scientific literature devoted to the adoption of artificial intelligence technologies in social services for adults and older people. Publications from the period 2020–2025 are analyzed, with the study based on a comparative analysis and conceptual synthesis of established models for technology adoption—TAM, UTAUT, and the Almere model. The analysis focuses on trust, perceived control, and perceived usefulness as the main psychosocial mechanisms that determine attitudes and intentions to use artificial intelligence technologies. A critical review of existing research highlights the leading theoretical approaches, existing gaps in knowledge, and promising directions for future research.

Analysis of the latest research and publications

Theoretical foundations of technology acceptance. Models of technology acceptance. The theoretical understanding of technology acceptance by users is dominated by several models that have been adapted and expanded in the context of AI technologies for older adults. According to the Technology Acceptance Model (TAM) of 1989, the behavioural intention to use technology is determined by two main perceptions: perceived usefulness and perceived ease of use [7], [8]. Despite the widespread application of TAM, the model is overly simplistic and does not take into account the social and emotional factors involved in interacting with AI systems [9].

The Unified Theory of Acceptance and Use of Technology (UTAUT) expands TAM by including additional constructs: performance expectancy, effort expectancy, social influence, and facilitating conditions [1], [6]. The UTAUT model is widely used in studies of the acceptance of social robots by older adults, with empirical data confirming its predictive validity [1].

Specific to the context of social robots, the Almere model integrates elements from TAM and UTAUT with constructs specific to robot-human interaction: social influence, animacy, social presence, perceived adaptiveness, and trust [12], [13], [16]. The Almere model has been validated in numerous studies with older adults and is considered one of the most appropriate theoretical frameworks for studying the acceptance of social robots in adult care [16].

Research confirms that perceived usefulness, ease of use, social influence, and trust are among the strongest predictors of older adults' intention to use social assistive robots [15]. At the same time, these models have been criticized for not paying enough attention to the emotional and affective processes that play a central role in interactions with anthropomorphic AI systems [9].

Specifics of AI technologies in elderly care. AI technologies in elderly care are distinguished by several specific characteristics that differentiate them from traditional information technologies and assistive devices. First, these systems possess social abilities—the ability to recognize and respond to social cues, engage in dialogue, and express emotions through facial expressions, gestures, and voice [19]. This social interactivity positions AI systems not as tools but as social actors, which activates various psychological processes in users [8].

AI systems demonstrate adaptive behavior—the ability to learn from interactions, personalize responses, and adapt to the individual needs and preferences of users [6], [13]. This creates expectations of intelligence and autonomy that can influence acceptance both positively

and negatively [8], [14]. In the context of adult care, AI technologies often perform emotionally significant roles – companionship, emotional support, social stimulation [5], [9]. This is particularly important for older adults who experience loneliness, social isolation, or cognitive impairment [5]. The emotional significance of these interactions increases the importance of trust and emotional security [2], [21], as older adults are characterized by specific needs, limitations, and attitudes.

Research identifies technological anxiety, low self-efficacy in the use of new technologies, physical and cognitive limitations, as well as value attitudes regarding autonomy, dignity, and human contact as significant factors that moderate the acceptance of AI technologies [7], [12].

PRESENTATION OF THE MAIN RESEARCH MATERIAL

Trust as a central psychosocial mechanism. Trust has been consistently identified in the literature as crucial to the acceptance of AI technologies by older adults [2], [14], [21]. Despite its central role, trust is a complex, multidimensional construct that is conceptualized in different ways in different studies.

The classic psychological theory of trust, based on the work of Mayer and colleagues, identifies three main dimensions: ability, benevolence, and integrity. In the context of AI systems for adults, these dimensions are operationalized as: (1) perceived competence of the robot to perform its tasks effectively and reliably; (2) perception that the robot acts in the interest of the user and cares for their well-being; (3) perception of consistency and predictability in the robot's behavior [2], [21]. The trust of older adults in a health advisor robot is influenced by both the functional reliability (absence of errors) and the social attributes of the robot (warm, caring behavior) [2]. Interestingly, the study found that the robot's warm behavior can partially compensate for functional errors, but only to a certain extent—in the case of critical errors in a health context, social characteristics are not sufficient to maintain trust [21].

An additional dimension of trust specific to AI systems is predictability. Older adults and staff in care institutions express a need for clear signals that make the robot's behavior predictable and understandable [20]. Unpredictable behavior generates uncertainty and anxiety, which undermines trust even when the robot is functioning technically correctly.

Anthropomorphism and social presence. Anthropomorphism—the attribution of human characteristics, intentions, and mental states to non-human agents—is a central psychological process in interactions with AI systems [13], [21]. Research shows that the anthropomorphic design of social robots (human-like form, face, voice, gestures) can facilitate social perception and increase trust, but it can also create unrealistic expectations and disappointment when the robot does not meet human standards of social behavior [8]. Attributing agency (ability to plan, intentions) can increase trust in certain contexts, but it can also generate anxiety about the robot's autonomy and control. Attributing experience (ability to feel emotions, consciousness) is associated with greater emotional attachment, but not necessarily with higher functional trust [14].

Social presence—the feeling that you are interacting with a social agent rather than a machine—is another important mediator of trust [12], [19]. Seaborn and colleagues compared the reactions of older adults to a physical robot (Pepper) and a voice assistant (Amazon Echo) as facilitators of group conversation [19]. The results show that the physical presence and nonverbal cues of the robot generate a stronger sense of social presence, which in turn is associated with greater engagement and positive emotional responses, but not necessarily with greater trust in the robot's advice.

Reliability, errors, and restoring trust. Functional reliability—the ability of an AI system to perform its tasks without errors—is one of the most important components of trust [2], [20], [21]. Studies consistently show that technical errors, speech recognition failures, or inadequate responses significantly undermine older adults' trust in AI systems [20], [21].

Giorgi and colleagues experimentally manipulated a robot's reliability (errors vs. no errors) and social behavior (warm vs. cold) in the context of administering health supplements [21]. The

results show that errors drastically reduce trust and intention to use the robot, with this effect being stronger for critical tasks (health advice) compared to less important interactions. Warm social behavior can partially mitigate the negative effect of errors, but cannot fully compensate for it.

An important question is whether and how trust can be restored after a mistake. Research in the field of human-robot interaction suggests that apologies, explanations, and corrective actions can facilitate the restoration of trust, but empirical data on older adults is limited [21]. Hebesberger and colleagues note that in long-term interactions, repeated mistakes lead to a gradual abandonment of the technology, even when initial acceptance was positive [20].

Perceived control and autonomy. Perceived control—the feeling that an individual can influence technology and its actions—is a central psychological construct that influences the acceptance of AI systems by older adults [7], [12], [17]. Theoretically, perceived control is linked to fundamental psychological needs for autonomy and self-determination, which are particularly important for the elderly population in the context of loss of independence and institutionalization [7].

Self-Determination Theory posits that autonomy—the sense of choice and control over one's own actions—is a basic psychological need whose satisfaction is critical to well-being and motivation [7]. In the context of AI technologies for adults, perceived control may be threatened by the automation of tasks that have traditionally been under human control, or by the feeling that technology is making decisions instead of the user [12].

Felber and colleagues conducted a qualitative study with older adults and caregivers, which revealed that maintaining autonomy is a central theme in the evaluation of technologies [7]. Participants expressed concern that technology could reduce their independence, make them more dependent on machines, or limit their choices. At the same time, technologies that facilitate autonomy—for example, by compensating for physical or cognitive limitations—were evaluated positively [7].

Balance between automation and human agency. One of the central paradoxes in the implementation of AI in adult care is the balance between automation and human agency. On the one hand, automating routine tasks can free up time and resources, reduce physical strain, and increase efficiency [6]. On the other hand, excessive automation can undermine the sense of control, reduce choices, and create dependence on technology [7], [12]. Research shows that older adults prefer technologies that support rather than replace human agency [7].

Fracasso and colleagues conducted a cross-national study in Italy and Germany that revealed cultural differences in attitudes toward autonomy and control [17]. Italian participants expressed greater concern about the loss of autonomy and preferred technologies with a higher degree of human control, while German participants were more likely to accept automated decisions if they increased efficiency and security [17]. These cultural differences highlight the need for context-sensitive theoretical models.

Johnson and colleagues investigated the factors that influence older adults' willingness to share personal health information with AI care robots [18]. The results show that perceived control over data—the ability to manage who has access to the information and how it is used—is a critical factor in willingness to share [18]. Participants expressed concerns about loss of control over personal information and potential misuse, highlighting the importance of transparency and control in the design of AI systems.

Perceived usefulness and functional value. Perceived usefulness—the perception that technology will improve the performance of important tasks or satisfy significant needs—is one of the leading factors in older adults' intention to use AI technologies [1], [10], [11], [15]. A meta-analysis by Luo and colleagues, covering 47 studies, confirms that perceived usefulness has the greatest effect on the acceptance of social assistive robots, followed by ease of use and social influence [15].

Cognitive assessment of usefulness is a complex process that involves identifying needs, evaluating the ability of the technology to meet those needs, and comparing it with alternative solutions (including human care) [7], [10]. Older adults evaluate the usefulness of AI technologies through the lens of specific, practical benefits rather than abstract technological capabilities [7], [11].

He and colleagues conducted a study based on the Almere model with elderly people in care institutions in China [16]. The results show that perceived usefulness is strongly related to intention to use, but this relationship is mediated by trust and social influence [16]. This suggests that even when technology is perceived as useful, a lack of trust or negative social attitudes can hinder adoption.

Contextual relevance and personalization. An important aspect of perceived usefulness is contextual relevance—the degree to which technology meets the specific needs and circumstances of the individual [6], [13]. Research shows significant heterogeneity in the needs of older adults depending on their health status, cognitive abilities, social environment, and personal preferences [7].

For example, for older adults with dementia, robots such as Paro (a seal robot) are considered useful for emotional regulation and reducing agitation, while for cognitively healthy older adults, the same robots may be perceived as infantilizing and inappropriate [9], [22]. This variability highlights the need for personalized and contextually adaptive approaches to assessing usefulness.

Perceived adaptability—the ability of an AI system to adapt to individual needs and preferences—has been identified as a significant factor in acceptance in the Almere model [12], [13], [16]. Luo and colleagues conducted a qualitative study based on the COM-B (Capability, Opportunity, Motivation – Behavior) model, which revealed that older adults appreciate technologies that "learn" from interactions and personalize their responses. This adaptability increases the perception of usefulness, as the technology is perceived as more relevant and effective. Hebesberger and colleagues note that in long-term interactions, perceived usefulness is strongly related to the actual functioning of the technology [20]. When the robot does not perform the promised functions or its performance is unreliable, initial positive assessments of usefulness quickly turn into disappointment and rejection [20]. This highlights the importance of realistic expectations and reliable technical performance in maintaining the perception of usefulness over time. Information systems with embedded artificial intelligence potential represent a practical solution [23].

Emotional processes: Technological anxiety and self-efficacy. Emotional reactions to AI technologies are a critical but often underestimated aspect of acceptance [9], [12]. Technological anxiety, defined as fear or discomfort when using new technologies, is particularly relevant for older adults, who may have limited experience with digital technologies and feel uncertain about their ability to use them effectively [12].

Luo and colleagues identify technological anxiety as a significant barrier to the acceptance of social assistive robots [15]. Participants in the qualitative study expressed fear of "breaking" the robot, concern about the complexity of use, and anxiety about the potential negative consequences of mistakes. This anxiety is particularly strong during initial interactions and can be reduced through gradual familiarization, training, and support.

Self-efficacy—confidence in one's own ability to use technology successfully—is closely related to technological anxiety and is a significant factor in acceptance [12], [15]. Older adults with higher technological self-efficacy demonstrate lower anxiety, greater willingness to experiment, and more positive attitudes toward AI technologies [12], [15]. Fracasso and colleagues found that fear of technology (including fear of job loss, loss of human contact, and loss of control) is a significant negative factor in the acceptance of social robots in Italy and Germany [17]. Interestingly, fear is a stronger factor than positive emotions such as curiosity or admiration,

suggesting that reducing negative emotions may be more critical than stimulating positive emotions [17].

Emotional attachment and social connection. While technological anxiety is a barrier to acceptance, emotional attachment to AI systems can be a major incentive [5], [9]. Research on companion robots such as Paro demonstrates that older adults can develop emotional bonds with robots, particularly when they possess characteristics that elicit caring responses (e.g., childlike features, softness, responsiveness to touch) [9]. Pinto-Bernal and colleagues are investigating the use of empathetic human-robot conversations to alleviate social isolation in care homes [5]. The results show that robots that demonstrate empathy through verbal and nonverbal cues generate greater emotional engagement and a sense of social connection [5]. Participants describe the interactions as "pleasant," "comforting," and "meaningful," suggesting that the emotional value of the interaction may be independent of cognitive assessments of usefulness [5]. Emotional support, reducing loneliness, and stimulating positive emotions are key mechanisms through which companion robots influence well-being.

Interrelationships between trust, control, and usefulness. Although trust, control, and usefulness are often studied as separate constructs, contemporary theoretical models emphasize that these mechanisms are interrelated and interact in complex ways [12], [15], [16]. For example, trust may be the link between perceived usefulness and intention to use—even when technology is perceived as useful, a lack of trust can hinder adoption [16], [21].

He and colleagues tested the Almere model with older adults in care institutions and found that trust mediates the effects of multiple other constructs on usage intention [16]. Specifically, perceived usefulness, social presence, and perceived adaptability influence the intention to use by increasing trust [16].

Perceived control also interacts with trust in complex ways. On the one hand, higher perceived control can increase trust, as the user feels more confident that they can manage the technology and prevent unwanted consequences [7], [18]. On the other hand, in certain contexts, high trust may reduce the need for control—when users believe that the technology is acting in their best interests, they may be more willing to delegate control [14].

Johnson and colleagues investigated the interaction between trust, control, and willingness to share personal health information with AI robots [18]. The results show that trust and perceived control over data have independent and cumulative effects on willingness to share [18]. This suggests that even with high trust, consumers want to retain control over their personal information, highlighting the importance of transparency and data management options.

Moderating factors: age, experience, cultural context. The relationships between psychosocial mechanisms and the acceptance of AI technologies are not universal but are moderated by a variety of individual and contextual factors. Age is one of the most frequently studied moderators, with research showing that older adults (80+) demonstrate higher technological anxiety, lower self-efficacy, and more conservative attitudes toward AI technologies compared to younger adults (60-70) [12], [15].

Previous experience with technology is another significant moderator. Older adults with more experience using digital technologies demonstrate lower anxiety, higher self-efficacy, and more positive attitudes toward AI systems [12], [15]. Even a short period of interaction with a social robot can significantly change attitudes—research shows that after initial interaction, technological anxiety decreases and trust increases [1], [10].

Cultural context also plays an important role. Fracasso and colleagues found significant differences between Italy and Germany in attitudes toward social robots for older adults [17]. Italian participants expressed greater concern about the loss of human contact and autonomy, while German participants were more focused on efficiency and functionality [17]. These cultural differences reflect broader value orientations and social norms regarding elder care, technology, and interpersonal relationships.

Zhang examined the role of ageism (age discrimination) in the acceptance of social assistive robots among older Chinese adults [12]. The results show that negative stereotypes about one's own age group are associated with lower self-efficacy and higher technological anxiety, which in turn reduces acceptance [12]. This highlights the importance of social attitudes and stereotypes as contextual factors that influence the psychosocial mechanisms of acceptance.

Discussion

The analysis shows that the acceptance of artificial intelligence technologies in social services for adults and older people is not determined solely by their technical characteristics, but by a complex intertwining of cognitive, emotional, and social mechanisms. Among these, trust, perceived control, and experienced usefulness stand out as particularly important, guiding attitudes and intentions to use these systems. Trust is established as a key connecting mechanism, as it is through trust that perceived usefulness, social presence, and perceived adaptability translate into a real willingness to use. In addition, the sense of control is essential for preserving the autonomy, dignity, and right of choice of older adults, while perceived usefulness is highly dependent on the specific life situation, health status, previous experience, and care environment. The article also shows that emotional processes, such as technological anxiety, confidence in one's own abilities, and emotional attachment, are not secondary but constitute an important part of the overall acceptance process, although they often remain insufficiently accounted for in the prevailing explanatory models. In addition, the review highlights significant gaps in the available research related to lack of follow-up over time, limited attention to emotional dimensions, lack of comparisons between different cultural environments, and the discrepancy between laboratory and real-world conditions of use.

It follows that the development and implementation of artificial intelligence technologies in social services must be based on an approach in which the system supports humans without replacing their independent role. It is important to apply a shared control model that combines technological support with a real opportunity for human intervention, correction, and choice. It is also necessary for technological solutions to be transparent, predictable, and reliable, providing clear explanations for their actions and opportunities to respond to errors, as predictability and sustainable functioning are crucial for building and maintaining trust. In addition, real user control over personal data and the degree of technological involvement in daily care should be ensured. It is also important that these systems be tailored to the individual needs, abilities, and preferences of older people, rather than being applied in a one-size-fits-all manner. The introduction of AI in social services must be accompanied by gradual familiarization, training, and human support aimed at reducing anxiety and increasing confidence in its use. In scientific terms, future research needs to focus on longer-term monitoring of interactions, fuller inclusion of emotional and cultural factors in theoretical models, and investigation of the real conditions in which these technologies are used in home and institutional settings. Only with such a comprehensive approach can we achieve not only a higher degree of acceptance, but also ethical and practical application of artificial intelligence technologies in the care of older adults and the elderly.

CONCLUSIONS

This article confirms that the acceptance of artificial intelligence technologies in social services for adults and older people is a multifaceted process that cannot be reduced to technical efficiency alone. Instead, it is shaped by psychosocial mechanisms that mediate the relationship between the characteristics of AI systems and people’s readiness to use them in everyday care.

The theoretical review confirms that established technology acceptance models, including TAM, UTAUT, and the Almere model, provide a valuable basis for analysis, but are insufficient on their own when applied to socially and emotionally interactive AI systems. Trust, perceived control, and perceived usefulness constitute the core of AI acceptance in this context, while emotional factors are not secondary but integral to understanding acceptance in later life. At the

same time, acceptance is context-sensitive and varies across age, prior experience, individual abilities, and cultural settings.

In summary, the adoption of AI in social services for adults and older people is a multifaceted process in which technical capabilities, psychological experiences, social relationships, and ethical considerations are closely intertwined. Future development in this field requires not only more precise scientific models, but also a clear understanding that care for older adults cannot be reduced to an automated service. The value of artificial intelligence technologies will depend on their ability to be integrated into care in a way that preserves human dignity, reinforces a sense of security, and promotes well-being without dehumanizing the very people for whom they are intended.

Article Declarations

Funding: The research for this article was supported by *Project FNI KP-06-N 95/8 "Psychology of Human-Machine Interaction: Multimodal Approaches for Social-Psychological Diagnostics with Integration of Artificial Intelligence and Intelligent Systems (INSIGHT)"*.

Author Contributions: The author solely contributed to the conceptualization of the study, methodological design, investigation, data curation, formal analysis, validation, drafting of the manuscript, and editing of the final text. Visualization was not applicable in this case

Conflicts of Interest: The author is a member of the Editorial Board of this journal. The author was not involved in the editorial handling of this manuscript, including reviewer selection, peer review, and the final decision-making process.

Acknowledgements: Not applicable.

Data Availability: No new empirical data were created or analyzed in this study. Data sharing is not applicable to this article.

REFERENCES

1. Martínez-Roig, R. (2024). *Robots sociales, música y movimiento: Percepciones de las personas mayores sobre el robot Pepper para su formación* [Social robots, music, and movement: Older adults' perceptions of the Pepper robot for training]. *Pixel-Bit. Revista de Medios y Educación, 70*, 25–41. https://doi.org/10.12795/pixelbit.104621 [in Spanish]
2. Giorgi, I., Minutolo, A., Tirotto, F., et al. (2025). I am robot, your health adviser for older adults: Do you trust my advice? *International Journal of Social Robotics, 17*, 883–902. https://doi.org/10.1007/s12369-023-01019-8
3. Kadylak, T., Bayles, M. A., & Rogers, W. A. (2023). Are Friendly Robots Trusted More? An Analysis of Robot Sociability and Trust. *Robotics*, *12*(6), 162. https://doi.org/10.3390/robotics12060162
4. Cortellessa, G., De Benedictis, R., Fracasso, F., Orlandini, A., Umbrico, A. & Cesta, A. (2021). AI and robotics to help older adults: Revisiting projects in search of lessons learned. *Paladyn, Journal of Behavioral Robotics*, *12*(1), 356-378. https://doi.org/10.1515/pjbr-2021-0025
5. Pinto-Bernal, M., Boels, K., Belpame, T., et al. (2025). Fostering social connection and emotional engagement to mitigate social isolation in care homes using empathetic human-robot conversation. *Research Square* (Preprint, Version 1, June 12). https://doi.org/10.21203/rs.3.rs-6811088/v1

6. Naseer, F., Khan, M. N., Tahir, M., Addas, A., & Kashif, H. (2025). Enhancing elderly care with socially assistive robots: A holistic framework for mobility, interaction, and well-being. *IEEE Access, 13*, 82698–82717. https://doi.org/10.1109/ACCESS.2025.3567331
7. Felber, N. A., Lipworth, W., Tian, Y. J., et al. (2024). Informing existing technology acceptance models: A qualitative study with older persons and caregivers. *European Journal of Ageing, 21*, Article 12. https://doi.org/10.1007/s10433-024-00801-5
8. Giorgi, I., Rajapakse, S., Palomino, M., & Masala, G. L. (2025). Older adults' perceptions of robots with differing intelligence in social multi-robot interactions. *ACM Transactions on Human-Robot Interaction, 15*(1), Article 25, 1–28. https://doi.org/10.1145/3769854
9. Dosso, J. A., Bandari, E., Malhotra, A., et al. (2022). User perspectives on emotionally aligned social robots for older adults and persons living with dementia. *Journal of Rehabilitation and Assistive Technologies Engineering, 9*. https://doi.org/10.1177/20556683221108364
10. Sadler, J. R., Khan, A., Lwin, M., & Mubin, O. (2024). Social Robots for Meaningful Seated Activities: Acceptance & Use by Older Adults. *Healthcare*, *12*(13), 1334. https://doi.org/10.3390/healthcare12131334
11. He, Q., He, Y., Liu, Q., & Ma, C. (2023). Acceptance of social assistant robots for the older adults living in the community in China. Geriatric Nursing, 52, 191–198. https://doi.org/10.1016/j.gerinurse.2023.06.006
12. Zhang, L. (2025). Breaking Barriers: A Dual-Factor Model Unraveling Ageism in Socially Assistive Robot Adoption among Older Chinese Adults. *International Journal of Human–Computer Interaction*, *41*(2), 1397–1413. https://doi.org/10.1080/10447318.2024.2314352
13. Kadylak, T., Bayles, M., & Rogers, W. (2021). Exploring social and assistive domestic robots for older adults: Robot sociability, trust, and acceptance. *Innovation in Aging, 5*(Supplement_1), 300. https://doi.org/10.1093/geroni/igab046.1170
14. Chen, K. (2025). Does ascribing robots with mental capacities increase or decrease trust in middle-aged and older adults? *International Journal of Social Robotics, 17*, 1617–1631. https://doi.org/10.1007/s12369-025-01307-5
15. Luo, C., Yuan, R., Mao, B., Liu, Q., Wang, W., & He, Y. (2024). Technology Acceptance of Socially Assistive Robots Among Older Adults and the Factors Influencing It: A Meta-Analysis. *Journal of Applied Gerontology*, *43*(2), 115-128. https://doi.org/10.1177/07334648231202669
16. He, Y., Li, P., Luo, C., Yuan, R., Yang, C., & Liu, Q. (2025). Exploring the acceptance of socially assistive robots by older adults in care institutions and its influencing factors: Based on the Almere model. *Journal of Applied Gerontology*. https://doi.org/10.1177/07334648251399946
17. Fracasso, F., Buchweitz, L., Theil, A., et al. (2022). Social robots acceptance and marketability in Italy and Germany: A cross-national study focusing on assisted living for older adults. *International Journal of Social Robotics, 14*, 1463–1480. https://doi.org/10.1007/s12369-022-00884-z
18. Amin, M. A. S., Johnson, V. L., Prybutok, V., & Koh, C. E. (2024). An investigation into factors affecting the willingness to disclose personal health information when using AI-enabled

caregiver robots. *Industrial Management & Data Systems, 124*(4), 1677–1699. https://doi.org/10.1108/IMDS-09-2023-0608

19. Seaborn, K., Sekiguchi, T., Tokunaga, S., et al. (2023). Voice over body? Older adults' reactions to robot and voice assistant facilitators of group conversation. *International Journal of Social Robotics, 15*, 143–163. https://doi.org/10.1007/s12369-022-00925-7
20. Hebesberger, D., Koertner, T., Gisinger, C., et al. (2017). A long-term autonomous robot at a care hospital: A mixed methods study on social acceptance and experiences of staff and older adults. *International Journal of Social Robotics, 9*, 417–429. https://doi.org/10.1007/s12369-016-0391-6
21. Giorgi, I., et al. (2022). Friendly but faulty: A pilot study on the perceived trust of older adults in a social robot. *IEEE Access, 10*, 92084–92096. https://doi.org/10.1109/ACCESS.2022.3202942
22. Whelan, S., & Casey, D. (2021). Examining social robot acceptability for older adults and people with dementia. In *Collaborative robots*. IntechOpen. https://doi.org/10.5772/intechopen.98365
23. Vekova, L., Uzhikanova-Kovacheva, E., Georgiev, P., & Vazova, T. (2026). Information systems and technologies with the implementation of artificial intelligence as an interdisciplinary approach for the development of digital competencies and training of social workers. *ARPHA Proceedings, 10*, 545–557. https://doi.org/10.3897/ap.10.e0545

Article History:
Received: March 09, 2026 | Revised: March 24, 2026 | Accepted: March 27, 2026 | Published Online: March 31, 2026

Citation: Vazova, T. (2026). PSYCHOSOCIAL MECHANISMS OF AI ACCEPTANCE IN SOCIAL SERVICES FOR ADULTS AND OLDER PEOPLE: TRUST, CONTROL, AND PERCEIVED USEFULNESS. *International Interdisciplinary Scientific Journal "Expert", 3*, Article 1, 1–10. https://doi.org/10.62034/2815-5300/2026-v3-001