

SILICON GENDER AND INTIMACY CUES IN ARTIFICIAL INTELLIGENCE CHATBOT SOCIAL PRESENCE FOR E-COMMERCE

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Abstract. Artificial intelligence chatbots have become central to e-commerce resilience by operating as continuous service agents that sustain customer interaction, trust, and engagement in competitive digital marketplaces. This study examines how silicon gender and intimacy cues are embedded in chatbot design to shape social presence within leading Malaysian e-commerce platforms, namely Shopee, Lazada, and Zalora. Drawing on Social Presence Theory and a technofeminist perspective, the study employed qualitative content analysis of chatbot interaction transcripts, focusing on verbal intimacy cues, expressions of emotional closeness, and trust-building strategies. The findings indicate distinct design orientations across platforms: Shopee's chatbot, Sophie, projects feminised warmth through personalisation and empathetic language; Lazada's Cleo prioritises procedural clarity and functional competence; while Zalora's gender-neutral assistant emphasises inclusivity, though with reduced sociability. These differences demonstrate that chatbots function not as neutral technological tools, but as culturally situated artefacts that influence user engagement and relational perception. The study contributes to communication research by highlighting how intimacy-oriented design choices enhance perceived social presence in commercial contexts, while also underscoring the need for ethical and inclusive frameworks to guide responsible chatbot development and deployment. These insights offer practical guidance for designers, marketers, and platform stakeholders seeking sustainable, user-centred, and socially responsible commerce interactions.

Keywords: *artificial intelligence chatbots, social presence theory, silicon gender, intimacy cues, e-commerce communication*

Introduction

E-commerce is experiencing rapid expansion and altering how consumer interact with brands and shop online. The Ministry of Domestic Trade and Cost of Living reported that the e-commerce industry in Malaysia recorded a revenue of RM625 billion during the first half of 2025 with an increment of RM13.5 billion per the last year (The Edge Malaysia, 2025). One of the factors that contribute to this growth is high levels of digital adoption in the region with an internet penetration rate of 97.7% and over 34.9 million active users (Kemp, 2025). This figure demonstrates the fact that the e-commerce industry has grown rapidly. Gupta et al. (2023) also observe that e-commerce provides consumers with more convenient access to a large variety of products and services at convenient periods and locations. E-commerce has grown a very fast rate thereby changing the manner in which consumer interacts with business. In the previous models, the companies were using direct communication channels like call centres and telemarketing in order to develop customer satisfaction. These techniques were to be used to promote interpersonal communication with the representatives of the service.

Nevertheless, most of these conventional methods are no longer pertinent due to the accelerated pace of digitalisation (Maheshwaram, 2024).

Consequently, various technological advances have been developed to respond to changes in the online market, and artificial intelligence is at the centre of transforming the consumer-business relationship (Al-Oraini, 2025). Chatbots are one of the tools that are most commonly used amongst them. They are conversational systems, which can be used to communicate via voice or text or gesture (Van Hooijdonk et al., 2023). Chatbots, which are part of e-commerce platforms, have slowly displaced the old service channels by providing a personalised, round-the-clock support with minimal response time (Nazir et al., 2023). In addition to simple functionality, AI-based chatbots are now used as frontline interfaces and handle customer enquiries, suggest products, and even pretend to be empathic (Seitz, 2024; Van Hooijdonk et al., 2023). These functions provide them with an impact on convenience as well as trust between brands and consumers (Chi et al., 2021). The trend is an indication of larger cultural changes in consumption. Lots of customers like to perceive the low-effort service of a minimum of human contact (Packard and Berger, 2021), whereas others address automation because it offers more personalised solutions at a faster speed. Consequently, the businesses will be able to provide efficiency and even human touch (Agnihotri and Bhattacharya, 2024). Chatbots are therefore not only service tools. They encourage brand loyalty and brand attachment in the digital economy.

Silicon gender is a term Malinowska (2024) uses to describe the process of imbuing technology with gender, e.g. robots, bots, and chatbots. These entities (despite the fact that they are genderless in their nature) are often given male, female, or neutral qualities by designers in voices, names, or styles of language. Within the framework of technofeminism, the practise is important as it shows how cultural power dynamics and gender expectations are embedded in technology and make chatbots carriers of social norms instead of neutral technologies (Wajcman and Young, 2023). This approach is especially applicable to e-commerce where the chatbot design determines consumer social presence experiences. Social presence is a concept that can be useful in understanding chatbot communication. Social presence describes the degree to which a digital being is seen as an actual social agent in the process of interaction (Short et al., 1976). Recently, a study by Kreijns et al. (2022) theorise social presence as a multidimensional construct uniting affective, behavioural and cognitive elements, which influence the way users feel closeness and connectedness in mediated spaces. The closer a chatbot is to a real human being, the higher a chance that the interaction will be perceived by consumers as a relationship, rather than as a transaction. A very important social presence dimension in digital commerce is intimacy, which can be defined as emotional warmth and closeness (Argyle and Dean, 1965). Personalization, empathetic tone, and expressive punctuation are not accidental but strategically included in the features of a type of establishment of trust and rapport (Dregger et al., 2024; Van Hooijdonk et al., 2023).

In spite of the fact that the current literature has already addressed the user perception of chatbot design (e.g., Karimova, 2026; Ma et al., 2025; Chen et al., 2024; Li et al., 2023), little has been done in terms of the systematic integration of silicon gender and intimacy cues into chatbot communication. The said gap is particularly apparent in the Malaysian e-commerce environment, where chatbots are becoming a more central factor. In fact, in response to this, the paper at hand examines the design content of chatbots in order to establish how silicon gender and intimacy cues are

structured and incorporated. In particular, it examines how gendered presentations and cues of intimacy like personalization, empathetic language, and expressive punctuation lead to the ability of a chatbot to create the illusion of a social presence. This study contributes to the study of the content of chatbots and its application in gendered and emotional communication strategies, instead of the user responses, and the implications that have been gained by the study in regard to ethical design, consumer trust, and inclusive online commerce. Thus, the aim of the research is to explore the development of silicon gender and intimacy cues in AI chatbots and how they are built and instilled in an e-commerce setting to create the illusion of social presence.

Literature review

The verbal intimacy cues and their contribution to the social presence of chatbots

The key factors in developing social presence in chatbot communication are verbal indicators of intimacy, especially in the context of e-commerce where conversations have to be efficient and relational. These cues will be a small talk, self-disclosure, humour, and expressive language, which will enable users to view chatbots as more human. The importance of linguistic cues in increasing chatbot sociability is highlighted in the previous literature. Dregger et al. (2024) demonstrate that artificial personality indicators can enhance the perceptions of humanness, and Ramnauth et al. (2024) extend that even the most insignificant small talks can maintain the rapport and the flow of the conversation. Collectively, these results indicate that intimacy cues are not marginal but focus on maintaining social presence. Nevertheless, according to Van Hooijdonk et al. (2023), the vast majority of chatbot presentations are strictly functional, and the opportunities of using intimacy cues and inadequate application in reality have a gap. This is significant because Seitz et al. (2022) detected in healthcare settings that diagnostic chatbots with a personal and empathetic language were more trusted as compared to those with an unmistakably clinical tone. Thus, there are indications that the use of verbal cues is not marginal, and they play a crucial role in influencing credibility and comfort to users. However, intimacy signals have to be put in control with work requirements. Chen et al. (2024) note that anthropomorphic cues boost engagement but can conflict with efficiency in scenarios with high stakes, where efficiency is valued more than accuracy. Conversely, Lalot and Bertram (2025) suggest that a consistent linguistic style, which will achieve user expectations, leads to sincerity and builds trust. The conflict between warm and professionalism illustrates the importance of strategic use: the lack of intimacy can lead to depersonal relationships, whereas the excess can lead to a decrease in perception of competence. This image is complicated by cultural variability even more. The CASA framework developed by Nass and Moon (2000) suggests that people are using social rules on computers, the nature of these rules varies according to cultural scripts. Therefore, humour or friendliness might be a welcome idea in the Western markets but come across unprofessional in other markets. On the whole, the literature points at the leading significance of verbal intimacy cues but seems to have constant gaps regarding the cultural variability and the ways in which it intersect with gendered chatbot design.

Emotional closeness and warmth as drivers of social intimacy in chatbot design

Emotional closeness and warmth go beyond the mere words to affect the way users get a deeper attachment to chatbots. Empathy and personalising convey warmth which

is demonstrated multiple times to enhance perception of understanding. Tripathi and Shukla (2024) state that empathetic responses enhance user satisfaction and emotional involvement. Moreover, Potdevin et al. (2020) reveal that emotional-supporting counselling bots create positive user experiences that are equivalent to communication with humans. In fact, warmth is very potent but not without issues. Moreover, Chu et al. (2025) also cautions that the illusion of intimacy can occur, and the users will become overly attached to the point of psychological damage. In the same manner, Li and Zhang (2024) believe that algorithmic intimacy may be rewarding and controlling, depending on whether the warmth is applied to establish sincere support or create dependency. This implication is not only concerned with emotional design but also brings up ethical issues: as much as warmth helps to encourage social presence, it may erase the boundary between nurturing and predatory behaviour.

Gender adds another layer of complexity. Bastiansen et al. (2022) discover that female chatbots with warm language are perceived as helpful, but not authoritative, and male chatbots with efficiency are perceived to be competent. This can be compared to the Stereotype Content Model (Fiske et al., 2002) which relates warmth to communality and competence to status. Wajcman and Young (2023) warn that these patterns are seen to make offline inequalities become ingrained in digital systems and produce gendered expectations instead of contesting them. As a response, Aumüller et al. (2024) suggest abstract or gender-neutral avatars as an option of demonstrating warmth without supporting stereotypes. Simultaneously, warmth combines with user context. Greilich et al. (2025) demonstrate that in many cases, anthropomorphic cues can lead to higher levels of empathy and trust, yet they also cause privacy issues and AI anxiety. Similarly, Ding and Najaf (2024) note that warmth fosters enjoyment whereas competence is becoming a prerequisite of trust and adoption. Warmth should therefore be incorporated with credibility and transparency as opposed to being conveyed independently. In summary, warmth and emotional intimacy are quite efficient instruments of forming intimacy, but they have two sides. They enhance user attachment and can cause dependence, perpetuate gender norms or create cynicism when excessive. Designers should, therefore, tune the warmth to the correct scale so that it becomes more empathetic and social and not to pose ethical and psychological dangers. Irrespective of these observations, very little work has explored ways of putting warmth into chatbot design, and not necessarily derived by the user reactions, especially in the context of silicon gender in e-commerce settings.

Strategies of trust-building during chatbot communication to develop social intimacy

The concept of trust is commonly viewed as the key to the existence of the sustainable human-chatbot relationships, and it is formed as a result of the interactions between the verbal signals, emotional warmth, and credibility perceptions. In the absence of trust, the intimacy cues will be rejected as fake or manipulative. The literature demonstrates that the patterns of communication are essential to establish trust on a regular and heartfelt basis since they would adjust the chatbot behaviour to the expectations of users (Lalot and Bertram, 2025). Furthermore, Aumüller et al. (2024) contribute to the similar thinking stating that gender-ambiguous or abstract chatbot designs may foster trust when specifically, they are not based on stereotypical representations that may dishearten certain users. However, trust is not only concerned with the existence of social cues. According to Seitz et al. (2022), when dealing with sensitive areas like healthcare, candour regarding restrictions is equally significant as

warmth as users appreciate candour regarding what a chatbot can and cannot do. Similarly, Feine et al. (2020) warn that the application of biased or stereotypic chatbot configuration can undermine trust, particularly when users feel that it will only sustain inequalities already in place. These results highlight the importance of the fact that trust depends on the communicative style of the chatbot as well as its ethical and inclusive design.

There is also empirical evidence that the design features and adoption are mediated by trust. In their study, Ding and Najaf (2024) determined that interactivity and humanness were positively related to trust in e-commerce that then significantly enhanced the intention to use chatbots. Similarly, Al-Oraini (2025) established that there was a moderate mechanism between social presence and satisfaction, whereas competence and trust had a stronger predictive role on user acceptance. Thus, although intimacy cues could establish early interaction, the long-term adoption will rely on the feeling among the users that the chatbot is reliable and competent. Scholars are however divided on the part of anthropomorphism. Greilich et al. (2025) discovered that humanlike cues are likely to increase the feelings of empathy and trust, but it may also cause privacy concerns and anxiety when the user feels manipulated. On the contrary, Chen et al. (2024) observe that anthropomorphic features contribute to better attention and engagement, but their performance is context and task-dependent. These inconsistencies imply that anthropomorphism is not the source of trust and such source is achieved by a harmonious combination of credibility, empathy, and functional reliability. Collectively, the strategies of trust-building are the focal point of the promotion of social intimacy when creating chatbots, but they are underexplained in terms of gender, culture, and prolonged interaction. According to the literature, there is a consensus that trust is developed as a result of sincerity, transparency as well as competence. However, their interaction with one another is still a query concerning the dynamics of their interaction. Specifically, there is little information on the systematic encoding of trust-building strategies into chatbot design and the overlap of these strategies with silicon gender and intimacy cues of e-commerce situations.

Synthesis and gap

Overall, the existing literature emphasises the importance of verbal signs of intimacy, emotional warmth, and trust-building measures in developing chatbot social presence. Nevertheless, the majority focus on user perceptions, and little is done regarding the systematic integration of these features into the design of chatbots. Moreover, the nexus of gender representation and intimacy is not deeply theorised, especially in non-Western e-commerce context. To fill these gaps, the current paper takes the design-based approach through examining chatbot scripts of Malaysian websites, thus contributing to the knowledge about how silicon gender and intimacy cues are created to create a simulation of social presence.

Materials and Methods

In this paper, the qualitative content analysis with thematic analysis was used, which examines the presence of silicon gender and intimacy cues in e-commerce chatbots. The reason behind the selection of a qualitative approach is that it creates the possibility of an in-depth study of meaning, context, and cultural representation of conversational data (Creswell and Poth, 2018). Data were collected between 25-28 September 2025, three

prominent Malaysian e-commerce websites were sampled, namely Shopee, Lazada, and Zalora, based on their eminence and the presence of chatbots. With twelve prompts as a standardised text of greetings, product questions, problem solving, trust and security, and emotional expression, nine transcripts were created (three per platform), creating 36 chatbot responses. A purposive sampling strategy guaranteed the rich information cases that depicted some variation in gender presentation. Shopee and Lazada introduced chatbots with female names and identifiable faces and avatars, whereas Zalora hired a gender-neutral assistant, whose gender was evaluated based on the chatbot names, pronouns, visual design, and the style of reply. Social Presence Theory (Short et al., 1976) (in which intimacy is the central dimension) led the analysis and was divided into three coding categories: (1) verbal intimacy cues (greetings, personalization, expressive markers), (2) emotional closeness and warmth (empathy, reassurance, politeness) and (3) trust-building strategies (transparency, guidance, escalation to human agents) could be identified. Data were coded in line, grouped by the theme, and interpreted by a review of the data through multiple reiterations with the help of reflexive notetaking to increase its consistency and minimise bias (Nowell et al., 2017). This design offered a systematic and flexible system of conceptualising the interaction of the presence of gender and interaction of intimacy cues to simulate social presence in Malaysian e-commerce chatbots (*Table 1*).

Table 1. *The data set of one transcript on each platform using the standardised transcript.*

Platform	Chatbot gender presentation	Elements observed	Number of transcripts
Shopee	Female-presenting (Sophie)	Standardized script of twelve prompts; conversational flows; chatbot responses; interface features	1 transcript
Lazada	Female-presenting (Cleo)	Standardized script of twelve prompts; conversational flows; chatbot responses; interface features	1 transcript
Zalora	Gender-neutral (Z Assistant)	Standardized script of twelve prompts; conversational flows; chatbot responses; interface features	1 transcript

Results and Discussion

The results showed that there was a lot of difference in the encoding of intimacy cues and gendered personas. Each Shopee, Lazada, and Zalora used different communicative strategies, which defined the perception of the social presence, intimacy, and trust. These variations may be seen as technical design choices as well as factors based on cultural and economic anticipations in the Malaysian e-commerce environment (*Table 2*).

Table 2. *Coding summary table and responses.*

Category	Indicators	Shopee (Sophie)	Lazada (Cleo)	Zalora (Z Virtual Assistant)
Silicon Gender	Name, avatar, pronoun, tone	Female-presenting Response: “Hi xxx I am Sophie ☐ ☐How may I help you today?”	Female-presenting Response: “Hello! I am CLEO, your virtual assistant.”	Gender-neutral Response: “Welcome to ZALORA Malaysia. How can I assist you today?”
Verbal Intimacy Cues	Personalization	Present Response: “Hai xxx ”	Absent Response: “Hello! How can I assist you today?”	Absent Response: “Welcome to ZALORA Malaysia.”
	Small talk	Present Response: “Hello! I’m	Limited Response: “Hello! How can I	Absent Response: “How can I

	Emojis/expressive style	doing great, thanks for asking! How about you?" Frequent	assist you today?" (polite but functional) Absent	assist you today?" (no small talk) Absent
		Response: "Don't worry, I'll help you sort this out ☐"	Response: "Refunds are processed within 7–14 days."	Response: "Refunds are available for eligible items once details are verified."
	Empathy	Present	Present but limited	Present but formal
	Supportive tone	Response: "I'm really sorry to hear about your frustration . We truly value your feedback." Present	Response: "I'm sorry to hear that you're frustrated. If you need further assistance, contact Customer Care Specialist." Absent	Response: "I understand how upsetting this can be. I'm here to help." Absent
Emotional Closeness & Warmth	Transparency	Response: "I'm always here to assist you!"	Response: "Please contact Customer Care Specialist for further help."	Response: "You may refer to our FAQ for more details."
		Present	Present	Present
	Competence	Response: "Your refund of RM13.27 is expected by 29-09-2025."	Response: "Refund time depends on method: Lazada Wallet (24h), Online Banking (2-5 days), Debit/Credit (5-15 days)." Present	Response: "Refunds are available for eligible items once details are verified." Present
		Present	Present	Present
	Consistency	Response: "Rest assured, using a credit/debit card on Shopee is safe! "	Response: "Yes, using a credit card is safe. Every transaction occurs in a secure environment with encryption." Present	Response: "Yes, credit card details are securely encrypted and stored." Present but procedural
Trust-Building Strategies		Response: Consistently reassures: "Don't worry, I'll fix this for you "	Response: Repeated process info: "Refunds are processed within 7–14 days."	Response: "Refunds are available once details are verified."
		Present	Present	Present

Shopee: Emotional closeness and feminised persona

The most overt verbal intimacy cues were used by Shopee chatbot, Sophie. The greetings were personalised, and were usually followed by emojis, such as: "Hi XXX 😊 I am Sophie 💎💎 How may I help you today?" which strengthened the feeling of friendliness and familiarity. She even resorts to small talk such as "Hello! 😊 I'm doing great, thanks for asking! How about you?" which strengthens cordiality and sociability. These language indicators indicated warmth and friendliness, which is consistent with other researchers who distinguish personalization and informal tone as the primary factors to increase social presence (Dregger et al., 2024). Sophie is always empathetic in her tone; she is always sympathetic in her attitude such as "I'm really sorry to hear about your frustration 😔. We truly value your feedback". Promising words like "I'm always here to assist you!" conform to the view of intimacy proposed by Argyle and Dean (1965) as emotional warmth and implies that Shopee strategically coded empathy as its strategy of engaging with customers. These design decisions reflect the technofeminism critique of feminising AI, which frequently has to perform emotional labor (Wajcman and Young, 2023). The element of trust-building is also incorporated in Sophie. She gives clear information "Your refund of RM13.27 is expected by 29-09-2025" and ensures its customers that it is safe to use a credit/debit card in Shopee: "Rest assured, using a credit/debit card on Shopee is safe! 😊". This combination of compassion and competence implies that Shopee makes its customer experience model position emotional warmth at its core.

Lazada: Transactional efficiency, warmth limited

The chatbot of Lazada named Cleo also presents herself in a very explicit way "Hello! I am CLEO, your virtual assistant" unlike Sophie, she has a polite and impersonal greeting as in the case of "Hello! How can I assist you today?". There is no use of personalization or emojis, which indicates a functional and not a relational orientation (Van Hooijdonk et al., 2023). She has a limited level of emotional closeness. When Cleo is responding to the frustration of the user, she writes: "I'm sorry to hear that you're frustrated. If you need further assistance, contact Customer Care Specialist". Although it is polite, it diverts intimacy to human agents. Chu et al. (2025) warn that this low level of warmth may make the perception of care less favourable and make communication superficial. Nonetheless, Lazada is great at building trust. Cleo provides more specific refund schedules: "Refund time depends on method: Lazada Wallet (24h), Online Banking (2-5 days), Debit/Credit (5-15 days)". Security is also another point that she stresses: "Yes, using a credit card is safe. Every transaction occurs in a secure environment with encryption". This priority of transparency corresponds to Seitz et al. (2022), who consider clarity as a source of consumer trust. In such a way, Lazada cyphers a feminine identity that focuses on effectiveness and reliability with a reduced emotional attachment.

Zalora: Objective persona and stifled intimacy

The chatbot of Zalora was a gender-neutral character, without feminising the character, at the same time, being polite and professional. Zalora positioning itself as the ZALORA virtual assistant only. Greetings such as "Welcome to ZALORA Malaysia. How can I assist you today?" not to personalise and use emojis, with a professional and remote style. Opposite to Sophie or Cleo, the assistant of Zalora did not use personalization and emojis, which lowered the sense of verbal intimacy. Rather, the answers were very standardised and took users to ticketing systems to get additional help. Even though there is empathy such as "I understand how upsetting this can be. I'm here to help", it is phrased in procedural and formal terms. Supportive reassurance is mostly non-existent, and answers are redirecting users to other sources: "You may refer to our FAQ for more details". This echoes the anti-standardism sentiments expressed by Feine et al. (2020), who believe that excessive standardisation of design had a risk of destroying the level of trust when users are made to believe that the indicators of intimacy are missing. To build trust, Zalora focuses more on process, rather than on proximity. Users are informed: "Refunds are available for eligible items once details are verified" and "Yes, credit card details are securely encrypted and stored". This procedural-oriented focus on immediacy lacks the feeling of warmth, though it creates a certain impression of competence. The neutrality does not resort to gender stereotypes yet at the same time, it defuses the sense of relational presence.

Comparative of three platforms

The application of silicon gender and intimacy cues throughout the three platforms is significantly different. Shopee (Sophie) is the feminised warmth and empathy that is the competence and emotional closeness. Lazada (Cleo) represents a woman but prefers the clarity of procedures to intimacy and gives more importance to trust by being efficient. Zalora (Z Virtual Assistant) adopts neutrality approach, as it is strictly professional and

process-oriented but without much relational presence. Considered through the Social Presence Theory, the latter findings indicate that intimacy cues are not accidental but part and parcel of communicative strategies which influence how users feel about chatbots as their relational or transactional partners. Considering the technofeminism standpoint, the cognitive aspect of utilising female identities to complete emotional labour (Shopee, Lazada) and the neutrality effect (distancing) as the driving force of chatbot design (Zalora) supports the idea that chatbots design is influenced by the cultural expectations and strengthens or contradicts gender-based expectations (Table 3).

Table 3. *Key similarities and differences in chatbot.*

Dimensions	Shopee (Sophie) Female-presenting	Lazada (Cleo) Female-presenting	Zalora (Z Assistant) Gender-neutral
Persona Style	Very feminised, warm, empathetic	Feminised branding, transactional tone	Neutral, polite but impersonal
Verbal Intimacy	Strong: emojis, personalization, informality	Weak: formal, functional, no emojis	Moderate: polite, little personalisation
Emotional Warmth	High: warm and reassuring, supportive, tone	Low: formulaic apologies, restricted empathy	Low moderate: professional and detached
Trust-Building	Clear refund schedule, escalation, security focus	Strong procedural focus, transparency	Secure payment, although ticketing minimises immediacy
General impression	Relationally deep and emotionally involved	Skilled but aloof	Neutral and involving but less personal

Conclusion

In summary, this paper demonstrates that intimacy cues and silicon gender are encoded differently by Malaysian e-commerce chatbots, which influence the development of consumer social presence. Shopee has a feminised feeling of warmth with personalization, emojis and empathy; Cleo at Lazada focuses on clarity in its procedures but offers little trustworthiness to the human touch, and the neutral assistant at Zalora is also neutral but less sociably inclined. This evidence shows that chatbots are neither neutral applications nor a neutral culture, but rather a cultural product, shaped by gendered expectations and communicative norms, which shape the way users are inclined to trust, care, and perceive competence in internet-based trading. The combination of Social Presence Theory and a technofeminism approach to the analysis proves that cues of intimacy are design decisions grounded in trust, authenticity, and engagement between the user and the information. The results put forward the necessity to design chatbots in a balanced and inclusive way that builds credibility without supporting stereotypes or overwhelming feminised characters with emotional labour. In the case of a business, the careful design of chatbots can greatly increase the level of trust and customer loyalty and help to maintain 24/7 shopping conditions when human operators are not always available, which makes virtual assistants the key to the customer support system. To the policymakers, it emphasises the values of ethical frameworks that are both protective to the users and also promote innovation. Finally, a chatbot represents the crossroads between technology and culture, as it demonstrates how digital commerce is not just a result of algorithm but also reflects human values that are built into it. The design-centred approach can be extended by future research and cross-cultural or longitudinal studies investigating the development of gendered and intimacy cues by markets and across time.

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Conflict of interest

The authors declare no conflict of interest with regard to this research study.

REFERENCES

- [1] Agnihotri, A., Bhattacharya, S. (2024): Chatbots' effectiveness in service recovery. – *International Journal of Information Management* 76: 25p.
- [2] Al-Oraini, B.S. (2025): Chatbot dynamics: Trust, social presence and customer satisfaction in AI-driven services. – *Journal of Innovative Digital Transformation* 2(2): 109-130.
- [3] Argyle, M., Dean, J. (1965): Eye-contact, distance and affiliation. – *Sociometry* 28(3): 289-304.
- [4] Aumüller, A., Winklbauer, A., Schreibmaier, B., Batinic, B., Mara, M. (2024): Rethinking feminized service bots: User responses to abstract and gender-ambiguous chatbot avatars in a large-scale interaction study. – *Personal and Ubiquitous Computing* 28(6): 1021-1032.
- [5] Bastiansen, M.H.A., Kroon, A.C., Araujo, T. (2022): Female chatbots are helpful, male chatbots are competent? The effects of gender and gendered language on human-machine communication. – *Publizistik* 67(4): 601-623.
- [6] Chen, J., Guo, F., Ren, Z., Li, M., Ham, J. (2024): Effects of anthropomorphic design cues of chatbots on users' perception and visual behaviors. – *International Journal of Human-Computer Interaction* 40(14): 3636-3654.
- [7] Chi, O.H., Jia, S., Li, Y., Gursoy, D. (2021): Developing a formative scale to measure consumers' trust toward interaction with artificially intelligent social robots in service delivery. – *Computers in Human Behavior* 118: 17p.
- [8] Chu, M.D., Gerard, P., Pawar, K., Bickham, C., Lerman, K. (2025): Illusions of intimacy: How emotional dynamics shape human-AI relationships. – *arXiv:2505.11649 [cs.SI]* 12p.
- [9] Creswell, J.W., Poth, C.N. (2018): *Qualitative inquiry and research design: Choosing among five approaches*. Fourth edition. – SAGE Publications, Thousand Oaks, California 488p.
- [10] Ding, Y., Najaf, M. (2024): Interactivity, humanness and trust: A psychological approach to AI chatbot adoption in e-commerce. – *BMC Psychology* 12: 14p.
- [11] Dregger, A., Seifermann, M., Oberweis, A. (2024): Language cues for expressing artificial personality: A systematic literature review for conversational agents. – *ACM Conversational User Interfaces* 17p.
- [12] Feine, J., Gnewuch, U., Morana, S., Maedche, A. (2020): Gender bias in chatbot design. – In: *Chatbot Research and Design*, Springer International Publishing 15p.
- [13] Fiske, S.T., Cuddy, A.J.C., Glick, P., Xu, J. (2002): A model of often mixed stereotype content: Competence and warmth respectively follow from perceived status and competition. – *Journal of Personality and Social Psychology* 82(6): 878-902.
- [14] Greilich, A., Bremser, K., Wüst, K. (2025): Consumer response to anthropomorphism of text-based AI chatbots: A systematic literature review and future research directions. – *International Journal of Consumer Studies* 49(5): 22p.
- [15] Gupta, S., Kushwaha, P.S., Badhera, U., Chatterjee, P., Gonzalez, E.D.R.S. (2023): Identification of benefits, challenges and pathways in e-commerce industries: An

- integrated two-phase decision-making model. – *Sustainable Operations and Computers* 4: 200-218.
- [16] Karimova, G.Z. (2026): Not in our image: Rethinking anthropomorphism in expert chatbot design. – *AI & Society* 41: 611-628.
 - [17] Kemp, S. (2025): Digital 2025: Malaysia. – *DataReportal-Global Digital Insights* 29p.
 - [18] Kreijns, K., Xu, K., Weidlich, J. (2022): Social presence: Conceptualization and measurement. – *Educational Psychology Review* 34(1): 139-170.
 - [19] Lalot, F., Bertram, A.-M. (2025): When the bot walks the talk: Investigating the foundations of trust in an artificial intelligence chatbot. – *Journal of Experimental Psychology: General* 154(2): 533-551.
 - [20] Li, H., Zhang, R. (2024): Finding love in algorithms: Deciphering the emotional contexts of close encounters with AI chatbots. – *Journal of Computer-Mediated Communication* 29(5): 13p.
 - [21] Li, Q., Luximon, Y., Zhang, J. (2023): The influence of anthropomorphic cues on patients' perceived anthropomorphism, social presence, trust building and acceptance of health care conversational agents: Within-subject web-based experiment. – *Journal of Medical Internet Research* 25: 25p.
 - [22] Ma, N., Khynevych, R., Hao, Y., Wang, Y. (2025): Effect of anthropomorphism and perceived intelligence in chatbot avatars of visual design on user experience: Accounting for perceived empathy and trust. – *Frontiers in Computer Science* 7: 17p.
 - [23] Maheshwaram, V. (2024): The evolution of customer service in the digital era. – *IOSR Journal of Business and Management* 26(10): 1-5.
 - [24] Malinowska, A. (2024): The silicon gender: Technological species and the transgression of model sexes. – In: *Postcollectivity*, Brill 12p.
 - [25] Nass, C., Moon, Y. (2000): Machines and mindlessness: Social responses to computers. – *Journal of Social Issues* 56(1): 81-103.
 - [26] Nazir, S., Khadim, S., Asadullah, M.A., Syed, N. (2023): Exploring the influence of artificial intelligence technology on consumer repurchase intention: The mediation and moderation approach. – *Technology in Society* 72: 11p.
 - [27] Nowell, L.S., Norris, J.M., White, D.E., Moules, N.J. (2017): Thematic analysis: Striving to meet the trustworthiness criteria. – *International Journal of Qualitative Methods* 16(1): 1-13.
 - [28] Packard, G., Berger, J. (2021): How concrete language shapes customer satisfaction. – *Journal of Consumer Research* 47(5): 787-806.
 - [29] Short, J., Williams, E., Christie, B. (1976): *The social psychology of telecommunications*. – John Wiley & Sons, London 195p.
 - [30] Potdevin, D., Sabouret, N., Clavel, C. (2020): An intimate virtual counselor for a better user experience. – *Proceedings of the 20th ACM International Conference on Intelligent Virtual Agents* 3p.
 - [31] Ramnauth, R., Bršćić, D., Scassellati, B. (2024): More than chit-chat: Developing robots for small-talk interactions. – *arXiv:2412.18023 [cs.RO]* 8p.
 - [32] Seitz, L. (2024): Artificial empathy in healthcare chatbots: Does it feel authentic? – *Computers in Human Behavior: Artificial Humans* 2(1): 17p.
 - [33] Seitz, L., Bekmeier-Feuerhahn, S., Gohil, K. (2022): Can we trust a chatbot like a physician? A qualitative study on understanding the emergence of trust toward diagnostic chatbots. – *International Journal of Human-Computer Studies* 165: 15p.
 - [34] The Edge Malaysia (2025): E-commerce revenue at RM625b in first half of 2025-ministry. – *The Edge Malaysia* 2p.
 - [35] Tripathi, S., Shukla, J. (2024): Exploring the impact of chatbot AI on empathic responses and emotional intelligence: A mixed-methods study. – *International Journal for Multidisciplinary Research* 6(2): 1-13.

- [36] Van Hooijdonk, C., Martijn, G., Liebrecht, C. (2023): A framework and content analysis of social cues in the introductions of customer service chatbots. – In: *Lecture Notes in Computer Science*, Springer International Publishing 16p.
- [37] Wajcman, J., Young, E. (2023): *Feminism confronts AI: The gender relations of digitalisation*. – In: *Feminist AI*, Oxford University Press, Oxford 18p.