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EDITORIAL

The future of artificial intelligence and robotics in the retail and service sector: Sketching the field of consumer-robot-experiences

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Artificial intelligence (AI)—or intelligence demonstrated by machines and systems which had traditionally been displayed by humans (Huang & Rust, 2018)—is rapidly changing the retail and service landscape (Guha et al., 2021; Noble et al., 2022). AI and AI-driven robotics are pervasive in theory and becoming more commonplace in practice, including AI-enhanced exoskeletons, other wearables, embodied and disembodied robots, avatars, grab-and-go checkouts, smart mirrors and windows, and a host of other AI-powered technologies that continue to emerge (Grewal et al., 2020b; Mende, Noble, Sugar 2023, this issue). As these examples illustrate, the impact of AI and AI-enabled robotics will be far reaching. However, given the sheer size of the service sector (e.g., 80% of the U.S. economy, 70% in France, 69% in Japan, Statista, 2021) there are numerous opportunities for AI to impact a wide range of industries including retail, transportation and logistics, education, health care, hospitality, entertainment, professional and technical services, as well as the government, among others. This special issue examines ways in which AI/-enabled robotics can be leveraged to create value for a wide-range of stakeholders, including consumers, organizational frontlines, and firms, as the retail and service landscapes continue to change. We begin our editorial explaining how this special issue came to be, followed by a summary of the papers in this issue. We conclude by outlining future research opportunities in consumer-robotic experiences and expressing gratitude to those that made this special issue possible.

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How this special issue came to be

We have had the opportunity to work on several conceptual papers over the years providing new (and hopefully) thought-provoking ideas in the areas of retail and service technology (Grewal et al., 2020b; Noble et al., 2022; Mende et al., 2023) and AI-driven robotics (Grewal et al., 2020a; van Doorn et al., 2017). Although these and other conceptual manuscripts (e.g., Davenport et al. 2020; Grewal et al., 2020a, b; Huang & Rust, 2018, 2021) provide theoretical frameworks for emerging AI and robotic topics, we wanted to showcase *empirical* research to further develop marketing theory. Together with John Hulland and Mark Houston we envisioned this special issue to bridge the gap between theorizing versus investigating empirically how AI and AI-driven robotics are used. An open call was used to solicit submissions for the special issue. We received a considerable number of manuscripts that underwent the regular review process for the *Journal of the Academy of Marketing Science*, with eight articles ultimately accepted.

Integrating the papers in the special section

The eight articles in this special issue showcase emerging ways that consumers, organizational frontlines, and firms are leveraging AI and robotics to create value. In addition to these papers, we invited Tom Sugar, an Engineering Professor at Arizona State University and thought leader in robotics engineering to co-author a commentary with us on the future of AI and wearable robotics. Our goal with Tom was to highlight the booming area of wearable robotics, while bridging engineering and marketing domains to stimulate further research in the area of 'Transhumanist Marketing'.

In addition to this commentary, the special issue includes eight empirical papers that highlight emerging work on AI and robotics in the retail and service sector. In their paper, "Robots do not judge: service robots can alleviate

embarrassment in service encounters," Holthöwer and van Doorn illustrate situations where consumers prefer to be served by robots rather than humans. Prior work suggests consumers prefer human service providers over robots (e.g., Čaić et al., 2019; Mende et al., 2019); however, across five studies, including a field study, Holthöwer and van Doorn illustrate this is not the case in embarrassing service encounters. Because consumers feel less judged by robots (vs. humans), robots are preferred. However, as the social presence of robots increases, for example through anthropomorphism, this effect diminishes. Although some levels of anthropomorphism can help consumers accept robots, their article shows anthropomorphizing robots backfires in embarrassing service interactions. Consumers prefer more machine-like, than human-like, robots in these situations, as the former have lower social presence and less social judgement. This paper is important as it highlights situations where retailers and service providers can leverage machine-like robots on the frontline to provide value for their customers.

In contrast to the positive outcomes found by Holthöwer and van Doorn (this issue), the next paper, "AI increases unethical consumer behavior due to reduced anticipatory guilt," illustrates how use of AI agents can cost retailers and service providers billions of dollars in fraudulent insurance claims, fraudulent product returns, etc. Across four studies, Kim, Lee, Kim, Kim, and Duhachek show that use of AI agents by firms increases consumers' unethical behaviors, as consumers anticipate feeling less guilt when lying to a robotic AI agent (vs. human). As this special issue deals with how firms can leverage AI and robots to create value, a logical question would be how retail and service providers can reduce this type of unethical conduct, especially given the unexpected, enormous costs of fraudulent claims that would be incurred if companies replaced human workers with robotic agents. To address this issue, the authors show that the negative effects of AI agents are attenuated when the AI is anthropomorphized. This paper highlights the hidden costs firms could incur when adopting AI and AI-enabled robotics yet highlights a way managers can attenuate potential negative effects by anthropomorphizing the AI agents.

The next three papers discuss the role of chatbots and voice-based interfaces, which are becoming increasingly common for retail and service providers (Kim, 2017; Perez, 2017). In "The effect of implementing chatbot customer service on stock returns: an event study analysis," Fortheringham and Wiles examine the influence of company announcements of AI customer service chatbots on firm value. Using 153 announcements over a four-year window, they find an increase in stock return, especially in B2B (vs. B2C) firms. As with other papers in this special issue, the anthropomorphism of the AI agent was explored as a managerial lever for firms. Through content coding of the news releases to create an anthropomorphic index (consisting of anthropomorphic appearance, anthropomorphic name, gender, personality, human role, and voice), the authors find that anthropomorphized chatbots show stronger returns when used for B2C customer service, than B2B. Two follow-up experimental studies show customers and investors value AI chatbots. This study is among the first to illustrate the effect of AI chatbot announcements on firm value.

With the positive influence of chatbot announcements established by Fortheringham and Wiles, the next paper "Voice bots on the frontline: Voice-based interfaces enhance flow-like consumer experiences & boost service outcomes," by Zierau, Hildebrand, Bergner, Busquet, Schmitt, and Leimeister illustrates how firms can use theories of human communication to create more positive experiences for consumers interacting with voice-based (vs. text-based) interfaces. Across four studies and using a custom-made voice-based interface, the authors show this interface creates a sense of flow in user experiences, which ultimately increases consumer sentiment, conversion rates, and contract renewals. Two boundary conditions were shown to increase this state of flow: (1) high semantic fluency (operationalized as simpler language) and (2) a lower number of conversational turns during the interaction. As voice-based interfaces are increasingly being used by firms to support customer requests, this study offers guidelines on leveraging their use.

In "How artificiality and intelligence affect voice assistant evaluations," Guha, Bressgott, Grewal, Mahr, Wetzels, and Schweiger examine antecedents of consumers' evaluations of AI enabled voice assistants. Using a text-mining procedure on over 150,000 Amazon consumer reviews, they identify four features that influence consumers' evaluations of Amazon's Echo and Echo Dot. Guided by signaling theory, they conceptualize these four features as signals of voice assistants' artificiality and intelligence. Combining these results with two more survey-based studies, they show that natural speech and social cues lessen artificiality perceptions of voice assistants, which ultimately increases consumers' evaluations of them, whereas task range and accuracy strengthen both intelligence perceptions and ultimately, evaluations of voice assistants. Several moderators are explored (e.g., length of relationship, age, gender, tech savviness) to provide retail and service managers with insights into when perceptions of voice assistant artificiality or intelligence are most impactful on consumers evaluations. The results of this study are important as they illustrate how consumers form perceptions of AI-enabled voice assistants and offer marketers ways to enhance these perceptions.

The prior articles took a customer or investor perspective on how to use or leverage AI and robotics to create value. In "Practice co-evolution: collaboratively embedding artificial intelligence in retail practice," Bonetti, Montecchi, Plangger, and Schau take an employee and management perspective to understand how employees' practices change when retailers introduce AI into company practices. Using an ethnographic approach, over a 5-year period, the authors identified practice co-evolution as an "orchestrated, collaborative, multistakeholder process" that underscores successful AI integration and employee usage. Furthermore, the authors identify that the trajectories of adoption of retail practices are not uniform, but rather dependent on employees' collaborative efforts to change old and create new practices. In contrast to existing models of adoption that investigate factors or conditions that influence initial adoption decisions, this article provides rich, descriptive, and insightful strategies for employees and management to leverage AI to create sustained usage and value.

Our next paper tackles the value potential of social interactions in the emerging metaverse. In "Social interactions in the metaverse: framework, initial evidence, and research roadmap," Henning-Thurau, Aliman, Herting, Cziehso, Linder, and Kübler investigate whether real-time, multisensory social interactions differ when accessing the metaverse through virtual-reality headsets versus two-dimensional, computer-mediated environments (e.g., Zoom). Across five field experiments, outcome variables such as creative team solutions, service provided to customers, and service experiences were explored. Interestingly, the authors find that engaging in the metaverse using virtual reality headsets did not systematically outperform the two-dimensional setting; rather the results varied by outcome variables. For example, the authors find that using virtual-reality headsets to access the metaverse adds value to real-time, multisensory social interactions by heightening participants' social presence feelings, yet at the same time this type of access creates exhaustion, which did diminish with usage and experience. The authors conclude with insightful research questions that offer a roadmap for future research in this area.

Our final paper by Tan and Saraniemi explores trust in blockchain exchanges. In "Trust in blockchain-enabled exchanges: Future directions in blockchain marketing," the authors use a qualitative methodology to uncover aspects of blockchain technology that facilitate trust beliefs and how this differs from more traditional exchanges in business relationships. Specifically, Tan and Saraniemi seek to answer the following research questions: "What conditions provide this trust, and how?" and "What makes the data in a blockchain tamperproof and immutable?" Through 18 interviews with key informants, the authors identify three mechanisms to explain how blockchain builds trust differently. These three mechanisms entail trust in (1) exchange actors (i.e., cryptography-driven trust emerges in blockchain), (2) exchange actions (i.e., there is a transparent audit trail in real-time that is immutable in blockchain), and (3) exchange assets (i.e., there is a digital escrow of ownership of goods in blockchain). Rich depictions are provided for each theme, helping the reader understand how this emerging technology is changing the retail landscape. Readers learn a lot about blockchain and blockchain terminology in this manuscript and what the future of blockchain-enabled exchanges might look like for many marketing domains (i.e., online advertising, consumer trust and privacy, digital identity management).

Taken together, these papers offer multiple insights into how, when, and why AI and AI-enabled robotics can be leveraged to create value for key stakeholders including consumers, organizational frontlines, and firms in the retail and service sector. We hope these articles stimulate further research on AI and robotics. To this end, we identify additional future research opportunities next.

Identifying future opportunities

One of our key assumptions is that AI and (embodied and non-embodied) robots will become increasingly present in consumers lives and marketplace experiences (van Doorn et al., 2017; Mende et al., 2019). While we refer to robots here, we recognize that AI is the 'fuel' of service robotics, whether they are physically embodied (e.g., Pepper) or their social presence is exclusively virtual (e.g., Alexa) (Blut et al., 2021; Thomaz et al., 2020), or a combination of both (e.g., shape-shifting robots that oscillate between a virtual and one or multiple embodied existences) (Fine, 2023).

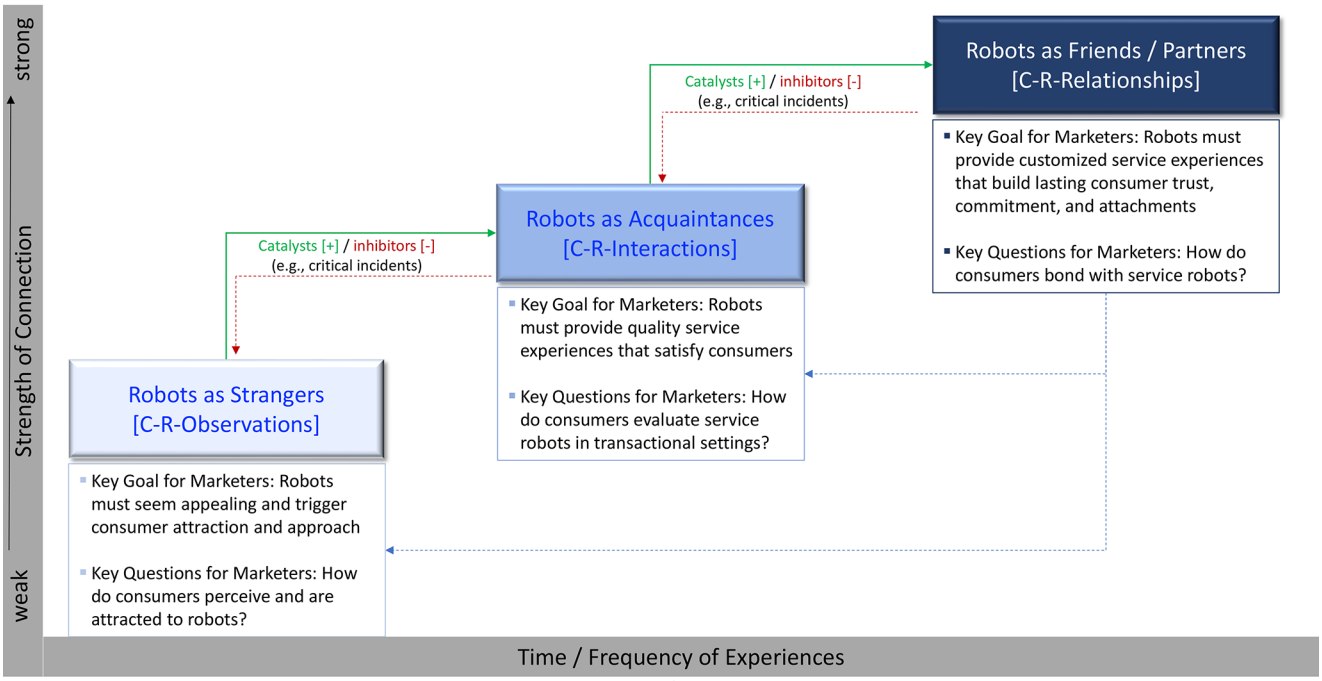
Studying the Robotic Evolution: From Strangers to Partners While the emerging literature in marketing (as illustrated by the papers in this SI) provides many valuable insights, we propose an even broader arena for future work. One of our fundamental premises is that understanding the evolution of customer experiences with robots over time is critical. Furthermore, we anchor our lens in a customer relationship paradigm that suggests that firms typically benefit from building cooperative and long-lasting relationships with their customers (Palmatier et al., 2006). Accordingly, we draw on dynamic views on customer-firm relationships (e.g., Zhang et al. 2016), which conceptualize different stages of relationship formation and evolution. We briefly illustrate one prominent dynamic typology of customer-provider relationship (see Johnson & Selnes, 2004; Zeithaml et al., 2024) to capture value generation via different relational

stages of service robots as strangers, acquaintances, friends and partners (Fig. 1).

Robots as Strangers The notion of robots as strangers accounts for the reality that (to date) a substantial share of customers remains in a pre-awareness and/or pre-transaction stage; that is, many customers are not aware of ever having had any interaction with a service robot; these are potential customers that typically are not aware of the opportunities for service robots and have not yet entered this service market. Therefore, given the barriers, concerns, and hesitations that humans often have related to the role of robots in modern society (Castelo et al., 2019; Longoni et al., 2019; Mende et al., 2019), marketing research needs to explore how to best communicate with these potential customers to attract and turn them into actual customers (e.g., by creating awareness, motivating customers to try the robot, and convincing them of the value that service robots can provide in general, or specifically, the value a focal robot can provide over competing offerings). An example of work in this area is Blut et al. (2021) who examine factors (consumer traits and predispositions, robot design, type of robot, etc.) that impact robot anthropomorphism and ultimately, consumers' intentions to use a robot. To create new insights related to this stage, opportunities emerge from integrating extant work in marketing with findings from robotics, engineering, and psychology on social perception of robots in 'zero-acquaintance' encounters or in situations where consumers merely observe service robots.

Robots as Acquaintances Once consumers are willing to try and use robots, firms must satisfy these customers by fulfilling their expectations (to a higher degree than their competitors) (Zeithaml et al., 2024). As numerous studies in marketing have shown (Otto et al., 2020), customer satisfaction is the platform for continued interactions over time. To move marketing knowledge forward at this stage, scholars ought to identify specific robot-related customer expectations (e.g., leveraging insights from extant work on satisfaction/service quality), which will likely vary (to some extent) across settings and roles robots fulfill.

Robots as Friends and Partners Based on repeated interactions, many customers are likely to become increasingly familiar and comfortable with robots; in parallel, based on these interactions over time, firms can collect detailed data about a customer's needs, preferences, and desires. In turn, these data enable firms to further tailor their robotic services and satisfy customers' unique emotional, cognitive, and/or physical needs. Through this process, some service robots can evolve to become friends to the customers they serve; that is, the relationship will include indicators of closeness such as consumer trust and emotional attachment toward robots; ultimately, some customers have the potential to develop a committed partnership with robots,



Derived from Zeithaml et al. (2024), Johnson and Selnes (2004), and Zhang et al. (2016); [note that robots are AI-driven/controlled]

Fig. 1 Evolution of Consumer/Customer-Robot-Experiences

and prior relationship research (in marketing and psychology) provides a plethora of phenomena that are important for marketers to study in this context.

Dynamics that Foster or Undermine the Evolution of Consumer-Robot Relationships Marketing scholars have shown that relationships are not always progressing, but that they can become stagnant or decline (e.g., when customers feel neglected by providers); even more threatening to the relationships, failures or conflict may occur over time that require targeted recovery efforts to nurture the relationship and prevent its dissolution (e.g., see Zhang et al., 2016 on corresponding migration mechanisms). Marketing scholars can draw on decades of service recovery research to examine to which extent established findings transform to customer-robot experiences and which facets are unique due to the machine-based aspects. Indeed, robot-related service failures and recovery are receiving considerable attention already (e.g., *CfP JSR*[1]). On a more optimistic note, marketers can also study relationship catalysts such as special treatment, or trust-generating and attachment-promoting behaviors by the robot. For example, there is a deep literature on trust in both marketing and robotics that could be merged to understand when and why consumers do (not) trust robots in service transactions and relationships.

Illustrative Theoretical Extensions: Robots as (Non-Human) Attachment Targets Although marketing research on consumer-robot-interactions is quickly emerging, the area of consumer-robot relationships is less explored, especially empirically. Some conceptual work can inspire empirical studies (e.g., see Hoffmann and Novak's 2019 ideas of 'master and servant' relationships). One particularly interesting approach is to draw on attachment theory, a major theory in psychology, and explore service robots as attachment targets for consumers, as we briefly illustrate next.

Attachment theory provides a comprehensive paradigm for explaining how and why people (dis)engage in close relationships (Mikulincer & Shaver, 2010), and it has been shown to also inform consumer-firm relationships (e.g., Mende et al., 2013). Although attachment theory overwhelmingly studies interpersonal bonds, the theory helps explain consumer attachments to non-human targets (e.g., pets, deities, TV characters) (Mikulincer & Shaver, 2010). Thus, we expect that service robots can become an attachment target for consumers, at least for certain consumer segments and/or as a function of specific service roles (e.g., companion, healthcare, or security robots). Such an attachment theory perspective triggers multiple interesting research questions such as: when and why can service robots become a 'secure base' (that offers security and support for a consumer's exploration and self-development) or when and why can it become a 'safe haven' (that provides consumers with comfort in times of distress and therefore elicits proximity seeking behaviors or even causes separation distress) (see Rabb et al., 2022 for further discussion). Marketers can draw on the idea of service robots as a 'secure base' or a 'safe haven' to examine which human attachment needs robots can fulfill (how, when, and why). Relatedly, marketers need to understand which robot-specific features (behavioral or appearance-related) bolster or undermine such attachments; for instance, robots can be programmed to dynamically adapt their service provision to customers' unique relational profiles (e.g., attachment styles, Mende et al., 2013).

Another lens is to examine whether certain consumers are particularly likely to bond with a service robot rather than other humans, because the 'compensation hypothesis' in attachment theory suggests that the distinction between interpersonal and parasocial bonds is important. According to this compensation perspective, consumers who cannot satisfy their attachment needs in interpersonal relationships can create substitute, abstract relationships and maintain them with symbolic means (e.g., via spiritual bonds to deities) (Granqvist et al., 2010). Indeed, Mende and Bolton (2011) found support for this hypothesis in service settings, where customers who found interpersonal bonds with service employees deficient, compensated for this deficiency by being more likely to bond with the service firm (a more abstract attachment target). Consistent with the theory, recent research discovered that some people tend to form compensatory attachments with their AI speakers (Kim et al., 2022).

Illustrative Theoretical Extensions: Robots as Family Members When we consider roles where robots become partners and friends, *familial robots*—or robots treated like family members—could become more common. Examples include robotic pets, caretakers/servants, protectors, and romantic partners. The ideas of robotic pets, caretakers, and even lovers are not completely new: Sony's robotic dog AIBO (Sony, 1999) was used in the early 2000s with dementia patients to increase their social behavior (Tamura et al., 2004) and with children to bring technology into their classroom in a non-threatening way (Decuir et al., 2004); moreover, robotic assistant caretakers roam hospital units (Johnson, 2022), and robots used as sexual partners have been around for over three decades (Belk, 2022). However, with technological advances robots have become more animated, social, conversational, and empathetic (Rust & Huang, 2021), suggesting attachment to robotic pets, caretakers, partners, and other familial robots could achieve new heights. With

[1] Special issue on Smart Service Failure-Recovery at the Journal of Service Research: https://journals.sagepub.com/home/JSR.

these increased capabilities human-robot bonds may reach the same strengths as human-human bonds between family members, but how might this occur?

Numerous research questions and the need for new theories emerge when we try to answer this question. First, we need new theories to understand bonds with familial robots. In 1984, Wilson (1984) introduced an idea called 'the biophilia hypothesis' which suggests that humans have an innate affinity for other living life forms (plant, animals, humans) and we seek out these affiliations and connections. This idea is rooted in evolutionary psychology, noting that our ancestors survived due to these living environments. Under this paradigm, the question then becomes, do we need to see robotics pets, caretakers, etc. in the natural versus technical domain (Melson et al., 2009) to truly accept them as part of our families? If yes, what is needed for this to occur, for example "what specific features of life forms focus human attention, stimulate interaction and activity, provide companionship, [or] provide cognitive enrichment" (Melson et al., 2009, p. 547) in such a way that humans see robots mimicking natural life? If we do not see robots as ever reaching the natural domain, can human-robot bonds reach human-human familial bond levels?

Krueger et al. (2021) raised a similar issue regarding human acceptance of social robots (like familial robots) and believe for acceptance to occur, we need to think of these attachments as "inter-species" rather than "intra-species" (Krueger et al., 2021, p. 373), with the former creating less competition with humans and as such, they would be less susceptible to the uncanny valley effect. Robots in this paradigm would be created for specific functions (e.g., social function, caretaking function) which is hypothesized to help humans approach and accept futurist robots better (Krueger et al., 2021). However, under this paradigm if robots are created to serve certain function (pet, caretaker, sex partner), Musiał (2017) suggests that we are violating robots' freedoms and equalities when designing them for servitude functions. Musial's (2017) ideas are interesting, as they are not focused on more common fears and debates such as the fear of erosion of human-human social skills from increased connections with robotics (Turkle, 2015), or concerns about humans wasting time and energy investing in non-human relationships when human-human relationships have played a key role in our evolution (Krueger et al., 2021), but rather the concern is that humans are wronging robots by implementing a servitude function in them and they do not have the free will to object to our servitization. Our goal here is not to identify all debates and needed areas of research regarding robots reaching familial levels, but rather to illustrate issues that will need to be addressed as robots take on not only familial functions but, are emotionally considered family.

Consumer-robot-experiences (CRE) at the intersections of relationship evolution, robot types, and consumption phases

Because customers are beginning to interact with robots in increasingly diverse settings, we further expand our analytical lens to allow for a deeper and broader understanding of the complexity of customer-robot experiences. As Fig. 2 illustrates, we go beyond the relational evolution (in Fig. 1) and overlay it with the rich portfolio of different types of service robots, and the notion that consumers can interact with robots at distinct stages of the consumption process.

Increasingly Diverse Types of Service Robots The aforementioned idea that robots can evolve from strangers, to acquaintances, to friends and partners is further enriched when we consider the increasing diversity of robots in the marketplace or that is under development. The service robot industry, with currently approximately 1,000 companies worldwide, is dynamic and diverse (International Federation of Robotics [IFR] (2023)), and analysts predict this industry will grow into a multi-billion industry that sells millions of units[2] (e.g., the global service robotics market is predicted to be valued at $41 billion by 2027, Fortune Business Insights, 2022). In the context of this industry, service robots are categorized into *consumer/personal* service robots and *professional* service robots (there are more nuanced categories that we do not further discuss here; see IFR, 2022).

Consumer service robots are designed to be used for non-commercial tasks and typically can be set up and operated by a layperson without any professional support (IFR, 2022); this category includes, for example, robots for cleaning, for edutainment (e.g., for children), and for social interactions (e.g., companion robots for the elderly). Notably, domestic robots that are employed inside and outside consumers' homes are a fast-growing (sub)category. Opportunities for outdoor robots exist in the areas of gardening/lawn mowing and pool cleaning; and inside the home, robots that support people in need of care (e.g., robotic wheelchairs and other mobility assistant bots) as well as cleaning robots (e.g.,

[2] The COVID-19 pandemic fueled the demand for certain robots (e.g., robots used for disinfection and professional cleaning). The demand for disinfection robots in hospitals and other settings (e.g., airports, public transportation, and hospitality) is expected to remain high (Zeithaml et al., 2024). In parallel, the pandemic also increased the demand for robots used in transportation and logistics as food- and grocery-delivery services grew rapidly.

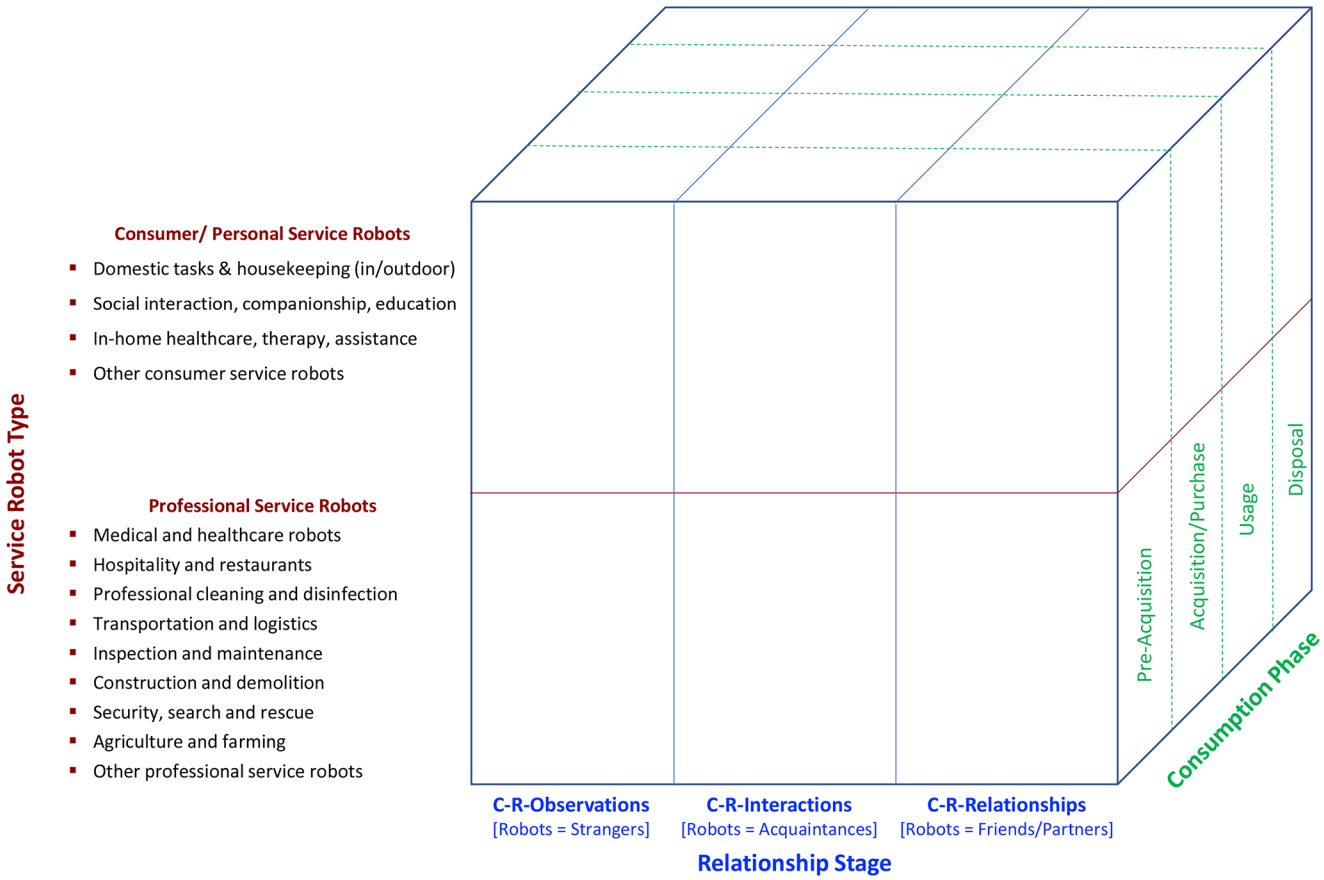


Fig. 2 Sketching the Field of Consumer-Robot-Experiences (CRE)

vacuums) are becoming more popular (IFR, 2022). In light of these opportunities, companies such as Toyota Research Institute are developing domestic robots that are able to wipe down counters, tables, and other furniture.

Professional service robots are designed for commercial tasks and are typically operated by trained employees/operators (IFR, 2022); this category includes a variety of robots in areas such as professional cleaning, transportation/logistics (e.g., delivery robots), and healthcare (e.g., physical therapy robots). Although most robots to date are non-humanoid in their appearance, humanoid robots are expected to serve in increasingly diverse roles (e.g., for security and surveillance, education, and customer service roles in stores and malls, hospitals, and airports).

Considering this variety of types of robots and the diverse settings in which consumers might observe and interact with them, there is ample opportunity for marketing scholars to examine the various stages of consumer-robot relationships (Fig. 1) to develop theories on where, when, and why a relationship evolution would (not) occur. We illustrate this by adding the robot categories as a second dimension of the consumer-robot-experience cube in Fig. 2. For an even more nuanced analytical lens, marketing scholars can also consider the various stages of the consumption process (or the customer journey, Lemon & Verhoef, 2016).

Robots Across Consumption Phases Although marketing originally focused on studying consumers' acquisition (purchase) decisions, the discipline has continued to widen its boundaries to include not only individual but also collective consumption choices (e.g., couples, families); equally important, conceptualizations of consumer behavior now also include post-purchase phases, specifically, the consumption phase as well as the disposal phase (MacInnis & Folkes, 2010). Accordingly, examining how (consumer/professional) service robots become part of these consumption phases of individuals or collectives and how this can trigger positive or negative effects on consumers and employees (individually and collectively) is an area that is ripe for empirical investigation.

Notably, this phase-based approach includes two perspectives: on the one hand, marketing scholars might draw on the idea of consumption stages to examine the robot as a product itself (i.e., they would study a consumer's awareness, approach, purchase, consumption, and disposal of

the robot/AI). On the other hand, and maybe more insightful, scholars can study in which phases consumers interact and potentially bond with robots; that is, when, where, and why does a robot become part of the (a) pre-purchase, (b) purchase, (c) post-purchase/consumption, and (d) disposal stage of other products (goods/services) for consumers, with which (un/intended) consequences and influenced by which factors? For example, would (certain) robots be able to influence consumers' affective and/or cognitive states in pre-purchase settings that, in turn, influences purchase and consumption phases (e.g., see Mende et al., 2019 who show how an initial interaction with a robot waiter influences consumers subsequent food choices). Out of the plethora of possible questions, marketing scholars can therefore adopt a phase-specific lens to examine how interacting with service robots over time might help fulfil (or undermine) consumers' goals and advance (or sabotage) social belonging; or, how service robots can affect consumers' self-identities and elicit symbolic consumption behavior and certain preconscious and subconscious processes that affect consumption and consumer decision-making (e.g., risk-taking, impulsiveness and self-control, or persuasion knowledge).

Research in these areas has meaningful implications for companies and their customers; whether the implications are positive or negative depends on many factors. Companies, for example, can develop stronger relationships with their customers if they know which type of robots to deploy, at which phase and stage of consumers' journeys. Consumers should be more receptive when the 'fit' between robot type, relationship stage, and consumption phase 'feels right'. More consumer receptivity could lead to stronger consumer/robot and consumer/company relationships, higher sales for the company, and perhaps more consumer information disclosure, which can be used by the company for more personalized products and services in the future (Thomaz et al., 2020). On the other hand, companies might find that consumers start to protect themselves in this environment where AI and AI-enabled technologies are engaging them at every stage of the consumption journey and in every aspect of life. In such situations, companies might struggle to reach and understand these exceedingly private consumers, called 'ghosts' by Thomaz et al. (2020).

For consumers, positive or negative implications could also emerge. For example, when consumers see a 'fit' between robot type, relationship stage, and consumption phase this could lead to positive outcomes, such as more trust in the robot/company or truly customized products, but there could also be unintended consequences such as a loss of both privacy and ownership of one's own information due to too much disclosure of information (Mende et al., 2023). Companies will need to implement safeguards, policies, and procedures to ensure the well-being of their customers, and consumers will need to find ways to protect themselves if needed. Societal implications are also abundant as protections at a societal or global level might be needed if companies abuse these consumer-robot-experiences (Mende et al., 2023). There are a multitude of implications as consumer-robot experiences increase in number and develop in strength. We highlight only a few examples here to illustrate the rapidly evolving retail and service landscape within this robotics and AI-powered technology era.

Note that, while we consider consumer-robot-experiences to be an exciting area, we do not mean to advocate for marketing scholars to become roboticists or engineers; instead, consumer-robot-experiences can draw on these disciplines as platforms to examine how service robots influence the *consumer role* (see MacInnis & Folkes, 2010 on what this role entails). This view should be the guidepost for what falls within the boundaries of the arena of consumer-robot-experiences and where marketing scholars should be allocating their attention and resources accordingly. And finally, while we deliberately focus on B2C settings in this editorial, we expect that many people will also experience service robots as part of their professional roles in B2B settings, which is yet another fertile perspective for marketing scholars.

With gratitude

In closing, we are grateful to the many people who have helped make this special issue possible. First and foremost, we thank John Hulland and Mark Houston, who have worked with us for the last three years turning this vision into a reality. Second, we thank the authors who submitted their work to this special issue. These authors are working on groundbreaking research and as such, we truly enjoyed reading each draft from initial submission to final acceptance. Finally, we truly appreciate the reviewers (see Appendix) who offered their selfless time to provide feedback and guide manuscripts through the review process. It certainly takes a village to make a special issue happen and we had the best support in all aspects of this village. Thank you!

Appendix: List of reviewers for this special issue

Thank you to the following reviewers who offered their time and effort to review manuscripts for this special issue.

Sascha Alavi
Zachary Arens
Todd Arnold
S. Arunachalam
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Thomas L Baker
Neil Thomas Bendle
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Neeraj Bharadwaj
Yashoda Bhagwat
Christopher Phillips Blocker
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