Guest editorial: Collaborating and sharing with AI: a research agenda

Artificial intelligence (AI) has brought about a transformative impact on service firms across industries, revolutionizing their operations and presenting new avenues for growth by crossing boundaries between physical, digital and biological domains (Krafft et al., 2020; Davenport et al., 2020). This is also reflected in the predicted global spending on AI, which is projected to increase from $85.3bn in 2021 to over $204bn in 2025, with an annual growth rate of 24.5% (IDC, 2021). In this new era of human–AI collaboration, service providers face tremendous challenges in terms of identifying, combining and harnessing the capabilities of both humans and AI for the well-being of stakeholders (Noble et al., 2022; Le et al., 2023). This special issue aims to motivate scholars to explore and engage in dialogues around the topic of human–AI collaboration.

While dominant explanations on human–AI interactions in marketing have emphasized how either AI substitutes or enhances humans, there is a growing number of studies that underlined the notion of collaboration in human–AI interactions (e.g. Huang and Rust, 2022; Le et al., 2023; Noble et al., 2022; Novak and Hoffman, 2019; Xiao and Kumar, 2021; Sajtos et al., 2020; Wirtz et al., 2018; Van Doorn et al., 2017). While recent works on human–AI collaboration have explored several new terms and concepts, researchers have yet to examine whether and how existing consumer- or employee-focussed, interpersonal, intra- or interorganizational collaboration theories can be applied to the notion of human–AI collaboration. In the following section, we provide a brief overview of key, but as yet unexplored collaboration theories (in chronological order), their definitions and outline a research agenda by proposing some research questions for future scholars on how these theories can be adapted to human–AI collaborations. Table 1 also includes the manuscripts in this special issue, their theoretical approach and their main purpose.

The current special issue focuses on applications of consumer- and employee-AI collaborations. The manuscript by Chandra and Rahman (2024), titled “Artificial Intelligence and Value Co-creation: A Review, Conceptual Framework and Directions for Future Research” discusses the roles of AI in value co-creation and decision-making. Their review identifies four customer decision-making types (AI-initiated, Collaborative, Delegation, and Passive) and three AI-facilitated (functional, emotional, and social) value co-creation archetypes.

The systematic review by Blümel et al. (2024) titled “Personal touch in digital customer service: A conceptual framework of relational personalization for conversational AI” proposes a framework of relational personalization. Employing social information process theory, the authors provide a framework for using text-based communication to design and influence customer service interactions.

Khan and Mishra’s manuscript (2024) titled “AI credibility and consumer-AI experiences: A conceptual framework” employs source credibility theory to conceptualize the concept of perceived AI credibility. This study develops a comprehensive framework and propositions regarding the impact of AI credibility on perceived justice, consumer-AI experiences and outcomes.

The manuscript by Mulcahy et al. (2024) titled “Avoiding Excessive AI Service Agent Anthropomorphism: Examining its Role in Delivering Bad News” employs an experimental approach to examine the effect of visual and verbal anthropomorphism on customer well-being and co-creation. The findings highlight that AI’s verbal and visual anthropomorphism...
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| Game theory (Von Neumann and Morgenstern, 1944) | Focuses on situations when individuals make decisions by considering anticipated actions and decisions of other players | - How can we design robot behaviours to align their objectives and coordinate their tasks with human workers to benefit the workers and the company?  
- How can we foster trust between humans and machines?  
- How can machines design incentives to human behaviour? |
| Equity theory (Adams, 1963)             | Focuses on the fair and equitable distribution of resources and rewards in interpersonal relationships | - How should inputs, outputs and comparison be defined, interpreted and conceptualized in human–AI collaboration?  
- What can equity or inequity be created, and how can inequity be restored in human–AI collaborations? |
| Organizational adaptation theory (Burgelman, 1991) | Focuses on how organizations adapt (survive and grow) in response to internal and environmental changes | - How can organizations balance between internal experimentation with AI-focused innovations (involving human–AI collaboration) and adopting external AI-focused solutions?  
- How can organizations balance between top-down and bottom-up AI-focused initiatives? |
| Process model of collaboration (Gray, 1985) | Focuses on the collaborative process consisting of three developmental stages including problem-setting, direction-setting, and structuring | - How can we define problems that are meaningful for humans and AI?  
- How can we study and identify interdependencies between humans and robots in a collaborative setting?  
- How can we best structure the tasks, roles and responsibilities of humans and AI in a collaboration? |
| Interdependence theory (Johnson and Johnson, 2009) | Focuses on the dependencies between entities, and how this dependency affects their outcomes and goal achievement | - How do humans share goals with AI?  
- How can we design systems with complementary roles and feedback loops between humans and automations? |
| Collaborative advantage (Huxham, 2003)   | Focuses on how collaborations (over working alone) can help organizations achieve significant advantages | - How can we best combine human intuition, creativity, and domain expertise for human–AI collaborations to create competitive advantage?  
- Under what circumstances can human–AI collaborations generate innovative, effective and efficient solutions? |

Table 1. Future research agenda
play a complementary role in creating a positive effect on the customer’s well-being and co-creation.

Fiestas Lopez Guido et al’s manuscript (2024) titled “Retail Robots as Sales Assistants: How Speciesism Moderates the Effect of Robot Intelligence on Customer Perceptions and Behaviour” conducts a series of experiments to examine how the interaction between a humanoid social robot’s intelligence and perceived speciesism (a human personality trait

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| Actor network theory (Latour, 2007) | Focuses on actors, including human and non-human (e.g. technology) in a network to understand the role of technology in a collaborative process | - How do human-AI collaborations share human’s perception of their individual or shared agency?  
- What network of human and non-human agents (algorithms) lead to better outcomes or competitive advantage?  
- How can human or non-human actors in a network translate, that is, define their roles and set boundaries? |
| Collaborative governance framework (Ansell and Gash, 2008) | Focuses on arrangement where (public and private) stakeholders engage in an iterative collective decision-making process | - How can AI be involved in a multi-stakeholder deliberation process of dialogue, negotiation, and consensus building?  
- How can companies support a shared decision-making process with AI by pooling resources?  
- Can shared decision-making processes ensure that AI systems are more transparent and accountable? |
| Value co-creation (Chandra and Rahman, 2024) | Develops a conceptual framework for a customer-AI decision-making and value co-creation process | |  
| Social information process theory (Blumel et al., 2024) | Develops a conceptual framework for the collaboration between conversational AI agents and human service agents to provide relational personalization | |  
| Source credibility and justice theory (Khan and Mishra, 2024) | Develops a conceptual framework to connect perceived AI credibility of AI-enabled offerings with consumer-AI experiences | |  
| Cognitive appraisal theory/uncanny valley (Mulcahy et al., 2024) | Develops and tests a conceptual framework of the role anthropomorphism in assisting consumer well-being and co-creation | |  
| Intergroup threat theory/speciesism (Fiestas Lopez Guido et al., 2024) | Develops and tests a conceptual framework on the impact of intelligence humanoid social robots and perceived speciesism on perceived competence and purchase likelihood | | |

**Source(s):** Table created by author

Table 1.
representing discrimination or prejudice against non-human species) influences perceived competence and purchase likelihood. Individuals with high levels of speciesism are less inclined to collaborate with AI, particularly when they perceive the AI as having lower intellectual intelligence.

Final remarks
All papers published in this special issue have undergone at least two rounds of reviews and revisions. Each submission was reviewed by a team of three reviewers, including a member of the editorial team, who provided valuable and constructive feedback. We are grateful to the following reviewers (in alphabetical order): Thilini Alahakoon (Queensland University of Technology), Yean Shan Beh (Dynotriads Marketing Consulting), Jamid Islam (Dublin City University), Khanh Le (Lancaster University), Marion Sangle-Ferriere (CY Cergy Paris University), Lisa Schuster (Queensland University of Technology), Billy Sung (Curtin University) and Benjamin Voyer (ESCP Europe).

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We hope that all articles in this issue – dedicated to current and future developments in customers and employees collaborating and sharing with AI – will contribute to further discussions, research and strategy development, as organizations seek to harness the benefits of human–AI collaboration.

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References


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Further reading
