Guest editorial

High tech and high touch: the future of human service

Over the last decade, the nature of services has rapidly evolved as technological advancements have become embedded in the service experience (Garry and Harwood, 2019; Bolton *et al.*, 2018; Van Doorn *et al.*, 2017). Service customers can be greeted in a physical servicescape by robots (Lu *et al.*, 2020), digitally assisted by chatbots (Sangle-Ferriere and Voyer, 2019) and robo-advisors (Wexler and Oberlander, 2021), use supportive digital tools (Bocking *et al.*, 2021) or be attended by human service agents (Volkers, 2021). Service encounters now encompass "any customer-company interaction that results from a service system that is comprised of interrelated technologies (either company-or customer-owned), human actors (employees and customers), physical/digital environments and company/customer processes" (Larivière *et al.*, 2017, p. 239).

In this special issue of the *Journal of Service Theory and Practice,* we consider the nexus of high tech/high touch and its contribution to optimising the customer experience. When technology and customer experience converge, a range of opportunities and challenges present themselves. Ostrom *et al.* (2021) identified that connections, actor roles and context matter deeply to the customer experience when technology is embedded. Leveraging technology for service consumption can result in unintended consequences, so service organisations are challenged to maintain a humanised, high-touch approach to complement roboticization and automation and increase consumer well-being (Ostrom *et al.*, 2021). The four manuscripts published in this issue consider these challenges and opportunities for the customer experience by focussing on the emerging areas of haptic touch in retailing (Mulcahy and Riedel), mHealth services (Schuster and Parkinson), smart technology (Mele, Marzullo, Di Bernardo, Russo-Spena, Massi, La Salandra and Cialabrini) and blended human-technology realities (Dodds, Oertzen, Russell-Bennett, Salvador-Carulla, Hung and Chen). This special issue is affiliated with the SERVSIG 2020 Conference, which was due to be held in Brisbane, Australia prior to its cancellation due to COVID-19. An open call for papers was publicised through SERVSIG organisational and conference channels (including a video introducing the special issue), the ELMAR listserv, the *Journal of Service Theory and Practice*'s website, as well as to authors with papers accepted to the SERVSIG 2020 Conference.

The first manuscript by Mulcahy and Riedel, titled "*Going on a Sensory Adventure, a Touchy Subject?: Investigating Haptic Technology and Consumer Adventure Orientation*", investigates haptic technology in retailing and its role in consumer experiences. Using affect as information theory, the authors examine the effect of tactile haptic technology on consumer emotions through sense of adventure in the context of female fashion retailing. Mulcahy and Riedel adopt a two study, 2×2 experimental approach tested using ANCOVAs and Hayes PROCESS macro to investigate how haptic technology influences consumer evaluations, as well as the moderating role of consumer orientation towards adventure in service experiences. The findings demonstrate that including haptics improves outcomes for service brands and channels through positive impacts on channel value, brand attitude and purchase intentions. Furthermore, the impact of haptics is greater for consumers with a lower sense of adventure. This manuscript adds to the limited existing research on how haptics can enhance a consumer's digital experience.

The next manuscript in this SI, "*Personal Goals in Consumers' Adoption of mHealth Services*" by Schuster and Parkinson uses a two-study mixed methods approach of interviews and a survey to explore how consumers' goal(s) influence their adoption of mHealth services. The authors integrate construal-level theory with the extended model of goal-directed

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behaviour (EMGB), with the focal behaviour being improving fitness or weight loss. Using NVivo, the interviews explore antecedents to goal desirability and goal feasibility, whereas the survey, using multi-group analysis in AMOS, investigates whether the EMGB better predicts behavioural desire and intention for consumers who tend to specify their goals more concretely than abstractly. Study 1 finds for consumers to prioritise health goals over other life goals they need to be aligned with their ideal selves, contribute to the achievement of other goals and be feasible given the resources available. Study 2 identified several differences between consumers who had more concrete compared to more abstract health goals, including consumers who had a concrete goal were less likely to adopt an mHealth service if they considered their health goal to be desirable (contradiction to EMGB). Schuster and Parkinson contribute to the scant research that considers consumers' goal(s) in using mHealth technology and highlight the importance of understanding this area so that mHealth services can be fully realised for public health benefits.

Using a practice-based inquiry, Mele, Marzullo, Di Bernardo, Russo-Spena, Massi, La Salandra and Cialabrini address how smart technology may lessen health vulnerabilities and improve an individual's well-being in their manuscript, "*A Smart Tech Lever to Augment Caregivers' Touch and Foster Vulnerable Patient Engagement and Well-being*". Using an action research methodology with an iterative means of planning, action and learning, the authors, comprising both academics and managers, executed three action studies to (1) establish drivers of smart technology adoption, (2) find ways to advance patient engagement and (3) evaluate user well-being within the context of residential and assistance care facilities. These studies included interviews with patients and professional health care providers and utilised sensors throughout the care facility. The authors demonstrate that smart technologies can act as a lever to supplement caregivers' efforts to enhance patients' well-being. The three studies show positive outcomes, including increases in levels of engagement by patients; reduced levels of anxiety, worry and behavioural disorganisation and increases in cognitive agreement, acceptance of the pathology and codified routines. From these findings, Mele, Marzullo, Di Bernardo, Russo-Spena, Massi, La Salandra and Cialabrini offer a smart engagement of vulnerable patients (SEVP) model that outlines how the integration of high tech and high touch enables engagement by patients with vulnerability.

The final manuscript, "*Blended Human-Technology Service Realities in Healthcare*" is a conceptual piece by Dodds, Oertzen, Russell-Bennett, Salvador-Carulla, Hung and Chen, revealing the potential factors that facilitate well-being of all actors involved in blended human-technology service realities. By taking a human centric and value-co-creation perspective, the authors propose a conceptual framework that explains how actors' well-being is achieved within various blended human-technology service realities. The authors propose three levels of blended human-technology service reality – human-dominant, balanced and technology dominant – and identify two key mechanisms (i.e. shared control and emotional-social and cognitive complexity) within this framework. They also suggest three influencing factors in the framework that affect the well-being of actors: meaningful human-technology experiences, agency and dialogue, access and risk transparency (DART). Finally, Dodds, Oertzen, Russell-Bennett, Salvador-Carulla, Hung and Chen propose a research agenda to advance research of service realities in healthcare and other service contexts.

Collectively, these manuscripts demonstrate that the evolution of the service experience presents us with a wealth of opportunities to examine how service organisations blend human and technological resources to optimise the customer experience. Not only is a plurality of methodologies evident in these manuscripts, but also a plurality of disciplinary and theoretical lenses, which provides us the necessary holistic perspectives to understand this human-technology interface. Despite this diversity of methodologies, disciplinary perspectives and theoretical lenses, there is consensus around some key issues proposed by

the authors for further investigation. The manuscripts of this special issue advocate for a diversity of theories and theoretical approaches to understand technology-based and multi-sensory experiences, a broader understanding of the influencing factors in human technology service realities and additional investigation into the role of blended human-technology realities for well-being and within health care settings, for patients, their families and employees.

We received a broad range of submissions to the special issue and would like to thank everyone who submitted manuscripts. As special issue guest co-editors, we are thankful to our reviewers and editorial review board members for their help improving the submitted manuscripts. All the manuscripts in this special issue have undergone, at least, two rounds of review and revision, with two reviewers per submission providing constructive feedback. We would like to thank the chief editors, Professor Chatura Ranaweera and Professor Marianna Sigala of the *Journal of Service Theory and Practice* for their support throughout this process and taking review responsibility of manuscripts when any conflict of interest arose. We hope you enjoy reading the manuscripts in this special issue, which provide insights into the nexus of high tech/high touch and its contribution to optimising the customer experience.

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References

Bocking, H., Russell-Bennett, R. and Letheren, K. (2021), "I'm no expert, but . . .? Consumer use of supportive digital tools in health services", *Journal of Service Theory and Practice*, In press. doi: 10.1108/JSTP-09-2020-0225.

Bolton, R.N., McColl-Kennedy, J.R., Cheung, L., Gallan, A., Orsingher, C., Witell, L. and Zaki, M. (2018), "Customer experience challenges: bringing together digital, physical and social realms", *Journal of Service Management*, Vol. 29 No. 5, pp. 776-808, doi: 10.1108/JOSM-04-2018-0113.

Garry, T. and Harwood, T. (2019), "Cyborgs as frontline service employees: a research agenda", *Journal of Service Theory and Practice*, Vol. 29 No. 4, pp. 415-437, doi: 10.1108/JSTP-11-2018-0241.

Larivière, B., Bowen, D., Andreassen, T.W., Kunz, W., Sirianni, N.J., Voss, C., Wünderlich, N.V. and De Keyser, A. (2017), "'Service encounter 2.0': an investigation into the roles of technology, employees and customers", *Journal of Business Research*, Vol. 79, pp. 238-246, doi: 10.1016/j.jbusres.2017.03.008.

Lu, V.N., Wirtz, J., Kunz, W.H., Paluch, S., Gruber, T., Martins, A. and Patterson, P.G. (2020), "Service robots, customers and service employees: what can we learn from the academic literature and where are the gaps?", *Journal of Service Theory and Practice*, Vol. 30 No. 3, pp. 361-391, doi: 10.1108/JSTP-04-2019-0088.

Ostrom, A.L., Field, J.M., Fotheringham, D., Subramony, M., Gustafsson, A., Lemon, K.N., . . . and McColl-Kennedy, J.R. (2021), "Service research priorities: managing and delivering service in turbulent times", *Journal of Service Research*, Vol. 24 No. 3, pp. 329-353, doi: 10.1177/10946705211021915.

Sangle-Ferriere, M. and Voyer, B.G. (2019), "Friend or foe? Chat as a double-edged sword to assist customers", *Journal of Service Theory and Practice*, Vol. 29 No. 4, pp. 438-461, doi: 10.1108/JSTP-10-2018-0235.

Van Doorn, J., Mende, M., Noble, S.M., Hulland, J., Ostrom, A.L., Grewal, D. and Petersen, J.A. (2017), "Domo arigato Mr. Roboto: emergence of automated social presence in organizational frontlines and customers' service experiences", *Journal of Service Research*, Vol. 20 No. 1, pp. 43-58, doi: 10.1177/1094670516679272.

Volkers, M. (2021), "'Can I go or should I stay?' A theoretical framework of social lock-in during unsatisfactory service encounters", *Journal of Service Theory and Practice*, Vol. 31 No. 4, pp. 638-663, doi: 10.1108/JSTP-06-2020-0122.

Wexler, M.N. and Oberlander, J. (2021), "Robo-advisors (RAs): the programmed self-service market for professional advice", *Journal of Service Theory and Practice*, Vol. 31 No. 3, pp. 351-365, doi: 10.1108/JSTP-07-2020-0153.