

KFUPM Business School

Department of Management & Marketing

Research Seminar Day

When Compassion is Delegated: How Generative AI Shapes Patient Satisfaction in Medical Consultations

While Generative AI has demonstrated expert-level clinical knowledge, its ability to bridge the empathy gap in high-pressure, resource-constrained healthcare settings remains unproven. Current research largely treats AI empathy as a content generation problem, overlooking the socio-technical dynamics of how AI directives influence human delivery. Adopting an Echeloned Design Science Research (DSR) approach, we develop and evaluate a Compassionate AI system designed to support physicians in Angola and rural China. Our inquiry proceeds through four interconnected studies. In Study 1, qualitative field interviews identify that time scarcity and low health literacy erode the physician-patient dialogue, motivating the design of an artifact capable of patient-friendly paraphrasing, emotion-aware phrasing, and explainable prompting. In Study 2, we instantiate these requirements into an AI architecture. In Study 3a and 3b, randomized field experiments in Angola (N=105) and controlled simulations in China (N=252) demonstrate that physicians supported by Compassionate AI significantly outperform those using standard Generative AI or standard care in patient-reported interpersonal skills and professionalism. Crucially, Study 4 (N=212) disentangles the interactional mechanisms driving these outcomes. Drawing on speech act theory and emotional labor theory, our 2x2 factorial experiment reveals that high-quality expressive scripts (locution) fail to improve satisfaction when paired with task-oriented, controlling AI instructions (illocution), as this misalignment induces surface acting and inauthenticity. Conversely, mitigated directives (Supportive instruction to physician) align with expressive scripts to induce deep acting, authentically transforming the encounter. This study contributes to the information systems (IS) field by conceptualizing GenAI not merely as a content generator, but as a relational interface that must manage the illocutionary force of delegation to enable authentic human care.



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1:00 to 2:00 PM



KBS room 115 (Bldg. 24)

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Dr. Yichuan Wang is a Professor of Marketing in the Department of Management and Marketing at the KFUPM Business School, King Fahd University of Petroleum and Minerals, Saudi Arabia. He holds a PhD in Business and Information Systems from Harbert College of Business, Auburn University. His research lies at the intersection of marketing and information systems in the healthcare domain, with a specific focus on scaling emerging technologies across multilevel and inter-organizational settings. His work appears in premier outlets, including the *Journal of Operations Management*, *Journal of the Association for Information Systems*, *Journal of Product Innovation Management*, *International Journal of Operations & Production Management*, *Social Science & Medicine*, and the *British Journal of Management*. His scholarly contributions have earned him multiple prestigious accolades, including the Top Cited Article Award from the British Journal of Management (2023) and the Emerald Literati Award for Outstanding Paper (2022), and the Clarivate “Highly Cited Researcher” in 2022 and 2025.