Supporting Information

Education Qualifications

2008 Doctor of Philosophy (Information Systems), NUS

- 2002 Master of Science (Information Systems) Accelerated Masters, NUS
- 2001 Bachelor of Science (Computer and Information Sciences) First Class Honours, NUS
- 2000 Bachelor of Science (Computer and Information Sciences) Pass with Merit, Software Engineering Specialization, NUS

Employment History

2016.01~now Associate Professor (tenured), NUS

2014.07~2016.01 Associate Professor (tenured), City University of Hong Kong (CityU)

2008.08~2014.06 Assistant Professor, CityU

2005.07~2008.06 Instructor, NUS

2003.01~2005.06 Teaching Assistant, NUS

<u>Links</u>

URL: http://www.comp.nus.edu.sg/disa/bio/tancho/

Google citations: http://goo.gl/gZcd47

ORCID: https://orcid.org/0000-0003-4031-6010

Scopus author id: 13008646400

Invited Talks/Visits

Universities: ETH Zurich, University of Sydney, University of New South Wales, Zhejiang University, Fudan University, Huazhong University of Science and Technology, The University of Hong Kong, Chinese University of Hong Kong, Suzhou University, ESSEC, University of Manchester, University of Warwick, Southern University of Science and Technology, South China University of Technology, Soochow University, Nanjing University

Recent talks invited by special interest groups: AIS Doctoral Student College (topic: Crafting an A* IS Research Paper: Tips from IS Journal's Editors, December 11, 2024); AAIS Digital Health Virtual Community - Australasian chapter of the AIS (topic: Human-Centric Information Systems Research on the Digital Future of Healthcare, June 13, 2025)

Research mentorship: mentor for [a] top IS journal paper development workshops (including JAIS 2015; MIS Quarterly 2022; Information Systems Research 2024, 2025), [b] university-organized paper development workshops (e.g., University of Nottingham workshop 2024; Baptist University of Hong Kong workshop 2023, 2018; joint research workshop of Baptist University of Hong Kong and South China University of technology 2025), faculty mentor for junior faculty member (NUS DISA since 2023).

Research Impact and Recognition

Top IS journal editorial positions: Information Systems Research (Associate Editor; 2023.01~now), MIS Quarterly (Associate Editor; 2016.01~2020.12; <u>Outstanding Associate Editor Award 2016</u>), Journal of AIS (Editorial Board Member 2012.02~2024.12; <u>Best Reviewer Award 2016</u>), Electronic Commerce Research and Application (Associate Editor; 2017.01~2019.06), IEEE Transactions on Engineering Management (Editorial Board member; 2011.08~now).

Leadership in Conferences/Workshops: PACIS (Program Co-chair; 2023, 2026), PACIS (Doctoral Consortium Co-chair; 2024), HCI International (Program Co-chair for HCI in Business, Government, and Organizations; 2015, 2016, 2017), ICIS (Track Co-chair, 2016, 2021, 2024), ICIS (Track Associate Editor; numerous times between 2009 and 2025).

Expert Panel within NUS: URC Expert Pane (2024.10~2026.10), URC Expert Panel for Accountancy, Business, Humanities and Social Science (2022.10~2024.09), Resident member of the URC Informatics and Mathematics (IM) Expert Panel (2019.10~2022.09)

Five Significant Works

Significant Work 1					
Title	Using Personal Communication Technologies for Commercial Communications: A Cross-Country Investigation of Email and SMS				
Full citation details	Tan, C. H., Sutanto, J., Phang, C. W., and Gasimov, A., "Using Personal Communication Technologies for Commercial Communications: A Cross-Country Investigation of Email and SMS," Information Systems Research, Volume 25, No. 2, June 2014, 307-327.				
Description of Significance	Summary of the paper: This research explores the impact of personal communication technologies (PCTs) on commercial performance, grounded in apparatgeist and social construction theories. It examines consumer responses to email and SMS, highlighting their symbolic meanings related to intimacy and formality. Through surveys and field experiments in China (high context) and Switzerland (low context), findings reveal that SMS is more effective in high-context environments. At the same time, email performs better in low-context settings. The study offers insights into selecting PCTs for commercial communications and contributes to the theoretical understanding of technology's role within cultural contexts. My Contribution: I spearheaded this research as the first author. I was actively engaged in all project phases, from conceptualization and theorization—specifically identifying Apparatgeist and social construction theories—to designing the field experiments, which included administering trials involving retailers in Switzerland and China. Additionally, I co-wrote the paper and contributed to its revisions throughout the review process.				

Significant Work 2							
Title	Healthcare Rural–Urban Access Inequality Challenge: Transformative Roles of Information Technology						
Full citation detailsYu, T., Tan, C. H., Sia, C. L., Shi, Y., and Teo, H. H., "Healthcare Rural–Urban Access Inequality Challenge: Transfor Roles of Information Technology," MIS Quarterly, Vol. 46, Issue 4, 2022, 1937-1985.							
Description of Significance	<u>Summary of the paper</u> : This work embodies a transformative journey through individual, organizational, and societal-level analysis, illuminating the profound impact of the Chinese Government's digital transformation on the healthcare sector. By engaging in extensive qualitative data collection and multi-level theorization, it uncovers the vital effects of digitalized healthcare services on residents in both rural and urban areas.						

Recognition:2023 China Information Economics Society Innovation Achievement Award (Information Management
Category). Professor Andrew B. Jones, former Editor-in-Chief of MIS Quarterly, made a special mention in his keynote
speech at CSWIM 2023.My Contribution:This research utilizes an interpretative approach and necessitates a multi-level analysis of the findings
(Government, hospitals, and the citizens). The multi-level theorization of healthcare information systems, which
encompasses both the Chinese government's policies and the perspectives of affected individuals, presents a significant
challenge within this study. Together with the first author, we led the research, and I was heavily involved in the
problematization of the study, identifying the theoretical lens that subsequently guided the qualitative data coding and
analysis, and in the writing and editing of the paper. I am the corresponding author of the paper throughout the review
process.

Significant Work 3	3
Title	Followership in an Open-source Software Project and Its Significance in Code Reuse
Full citation details	Jiang, Q. Q., Tan, C. H., Sia, C. L., and Wei, K. K., "Followership in an Open-source Software Project and Its Significance in Code Reuse," MIS Quarterly, Volume 43, Issue 4, 2019, 1303-1319.
Description of Significance	 <u>Summary of the paper</u>: Code reuse is essential in open-source software (OSS) development, and understanding its dynamics is crucial. Prior research has focused on leaders, but this study highlights the importance of followers—both developers and observers—who have prior contacts with leaders. Using a longitudinal dataset from GitHub, a survey, and qualitative data, this study reveals three key insights: active followership promotes code reuse, followers can be categorized into relational layers that enhance collaboration, and their motivations stem from learning and self-development. This work emphasizes the role of followers in facilitating collaboration and knowledge reuse in OSS projects. <u>My Contribution</u>: This research is based on the thesis of my co-supervised PhD student, Dr. Qiqi Jiang, who is currently an associate professor at the Copenhagen Business School. Professor Kwok-Kee Wei served as the secondary supervisor. As the primary supervisor, I guided and instructed Qiqi in mastering the complexities of empirical IS research, including data collection and analysis. The complexity comes from analyzing and synthesizing both quantitative and qualitative data analyses. Regarding the paper contribution, I problematized and motivated the research by guiding Qiqi in delving into the OSS literature, which I have been familiar with since my PhD time. I am also heavily involved in mixed-method design and writing. I was the corresponding author throughout the review process.

Significant Work 4							
Title	Sequentiality of Product Review Information Provision: An Information Foraging Perspective						
Full citation details	Li, M., Tan, C.H., Wei, K.K., and Wang, K.L. "Sequentiality of Product Review Information Provision: An Information Foraging Perspective," MIS Quarterly, Volume 41, Issue 3, September 2017, 867-892.						

Description	of	Summary of the paper: Much is known about the significance of product reviews for consumers, yet knowledge about their
Significance		provision on shopping websites is limited. This research employs information foraging theory (IFT) to explore how to present
		product reviews, which can be attribute-oriented or usage-oriented. Two studies revealed that consumers sequentially seek
		these types of information during their shopping journey. Study 1 used a think-aloud approach, while Study 2 examined
		varying review genres through a field experiment. The findings contribute to understanding consumer behavior by showing
		the importance of information sequentiality and tailored review strategies to enhance decision-making performance in online
		shopping.
		My contribution: This research is based on the thesis of my co-supervised PhD student, Dr. Mengxiang Li, who is currently
		an associate professor at the Baptist University of Hong Kong. Professor Kwok-Kee Wei served as the secondary supervisor.
		As the primary supervisor, I guided and instructed Mengxiang in mastering the complexities of experiment research design
		involving quantitative and qualitative data collection. In terms of the paper contribution, I problematized and motivated the
		research. Also, I guided Mengxiang in the literature review of online shopping aids, which I have been familiar with since
		my PhD dissertation is on online decision aids. I am heavily involved in the mixed-method design (i.e., the think-aloud
		approach for study 1 and field experiment for study 2). Meta-inference is essential for mixed-method research, and I guided
		Mengxiang (as a PhD student then) in conceiving the meta-inferences. I was heavily involved in writing and revising the
		paper throughout the review process. Throughout the review process, I was the corresponding author.

Significant Work 5							
Title	Assessing Screening and Evaluation Decision Support Systems: A Resource-Matching Approach						
Full citation details	Tan, C. H., Teo, H. H., Benbasat, I., "Assessing Screening and Evaluation Decision Support Systems: A Resource-Matching Approach," Information Systems Research, Volume 21, Issue 2, June 2010, 305-326.						
Description of Significance	<u>Summary of the paper</u> : This study investigates how consumers utilize online decision aids of varying sophistication and their impact on decision performance in different information contexts, guided by resource-matching theory. Findings indicate that more advanced tools, like the Weight-Attribute Screening (WES), improve decision quality and reduce decision time in high attribute-load environments, while simplifying tools, like the Least Simplified Screening (LSS), perform better in low attribute-load situations despite longer decision times. LSS participants supplemented cognitive resources, leading to better outcomes, while High Simplification Screening (HSS) proved ineffective across both environments. The research highlights the importance of matching cognitive resources with task demands for optimal decision-making efficacy. <u>Significance of this paper</u> : This study is one of the first to apply and extend resource-matching theory within the Information Systems discipline. It enhances understanding of how online decision aids affect individual decision performance by demonstrating the significance of matching cognitive resources and task requirements, thereby complementing existing theories like cognitive fit and task-technology fit. Specifically, it highlights the complexities of decision-making in technology-enabled environments, thus offering a better understanding of how decision aids can either enhance or hinder consumer performance depending on the cognitive resources available.						

My Contribution: This paper is derived from an article in my doctoral dissertation and represents my first significant
publication in the top two journals within the Information Systems discipline. I spearheaded the research under the
mentorship of my PhD supervisor, Hock-Hai Teo, and in collaboration with Izak Benbasat. My work involved conducting a
thorough literature review to identify the research gap, positioning the paper within the domain of technology-enabled
consumer shopping environments, designing the research framework, and developing the experimental system. I executed
the entire experiment independently and took the lead as the primary author during the writing and subsequent revisions of
the paper.

Courses Taught (since joining NUS in 2016) Average Student Feedback Score since joining NUS in 2016: 4.82(PhD level), 4.53(Master level), 4.18(undergraduate level)

AY/Sem	Course	Class Size	Student	Average		Sample Key Recurring Qualitative Comments	Comments			
		(Student	Feedback Score							
		Response	(Overall	Dept ¹	Faculty ²					
		No.)	Effectiveness)	1	5					
Regular co	Regular course teaching (taught multiple times)									
15/16	IS6103 Design	10 (6)	4.625	4.188	4.211	"He holds several strengths, but the most strong one is	This is the first course			
S2	Science Research					his knowledge towards the subject and his kindness.	I taught after joining			
	in Information					He deals with student with respect."; "Strong and	NUS in 2016. It was			
	Systems					insightful explanations & illustrations - Insightful	revamped, and I taught			
						discussions - Wide range of specialist knowledge demonstrated"	it twice before handing			
16/17		10 (8)	4.5	4.6	4.4	"He leads the discussion very well. Construct the	it to a newly recruited			
S2						concept very well and guide us to have a way of	assistant professor.			
						thinking in a design science research."				
19/20	IS6002	12 (8)	5.0	5.0	4.5	"Very knowledgable, well–structured, easy to follow	I took over the course			
S1	Quantitative					(although the material is not easy) making the lecture	with a major refresher			
	Methods for IS					effective assignments and feedback Keen engaging	on the methods,			
	Research					the class as examples or issues are given to trigger	including mixed			
						responses."	methods and multi-			
20/21		18 (14)	4.8	4.5	4.4	"Prof really loves what he do, he is always try to help	methods, which are			
S1		- ()	-	-		for any question in or outside of class and goes beyond	increasingly used in			
						his responsibilities. I believe 80% of my research	information systems			
						knowledge is from this module and his teaching	research.			
						methods."				
21/22		10 (10)	4.8	4.7	4.5	"The teacher helped me deepen my understanding of				
S1						research. Also, he shared a lot of useful tools and				
22/22		11 (5)	5.0	4.0	4.4	"It's too him a more than a function of the second day in this	4			
22/23		11(5)	5.0	4.9	4.4	His leacning provides plenty of knowledge in this				
51				1		area., he s very passionate				

23/24 S1		23 (3)	5.0	4.9	4.5	"I think the module content is very useful and Prof CH explains the concepts related to research design very clearly. Besides, he is a very helpful and approachable person and he provides useful feedback and advice when we have problems or difficulties with the term paper research design."	
17/18 S1	IS5002 Digital Transformation	51 (25)	4.7	4.5	4.1	"Very knowledgeable and able to share his experiences with the students. Good conduct of the class to capture students' interests."	IS5002 was originally titled "Contemporary IS Management" I
18/19 S1		38 (17)	4.4	4.3	4.1	"Authentic examples from the industry"	revamped the course,
19/20 S2		40 (24)	4.3	4.0	4.1	"Original in thoughts and analysis of digital transformation. Very approachable and willing to discuss and expand on the application of digital transformation."	change in the course title in 2018. 2017 was the year in which the
20/21 S2		62 (26)	4.7	4.2	4.2	"A lot of experience sharing from his consultation role in the industry reveals a lot of insights and expectations if one is in a position to promote or carry out DT within an organisation."	Singapore government initiated the digital economy and transformation. The
21/22 S2		54 (26)	4.4	4.3	4.2	"Effective communication skills – Respect for his students – Detailed explanations of the concepts – Effective and structured answers to the questions during the lecture time and assignments – Appropriate approach to e–learning"	course was revamped to align with this initiative.
22/23 S2		47(24)	4.7	4.0	4.1	"He is an example of how a complex topic like transformation can be taught in a matter that some (senior level) students can immediately apply within their work."	
23/24 S2		100 (43)	4.5	4.3	4.3	"He has extensive corporate experience and able to deliver his lectures with clarity and pragmatic insights and often drew real life examples that are helpful in my thinking process towards enhancing my career development."	
Extra cour	rse teaching due to So	C partnership	with NUS ISS and	I NUS S	CALE (ab	ove regular teaching)	
17/18 S1	IL5204 Stakeholder Relationship	15 (7)	4.6	4.2	4.3	"many rich and relevant experiences pertaining to the course content to share with the students."; "keeping students engaged with real-life examples."	This was a course administered under ISS, a joint course
18/19 S1	Management in the IT Eco-system	10 (4)	4.5	4.2	4.3	"Good at giving realistic and practical recommendations to problems"	between ISS and SoC. I taught it twice before the program became defunct.
19/20 S2		38 (29)	4.7	4.7^	4.1	"Very strong in concept and able to link all the concept to actual industrial implementation."; "Highly capable	This is a core course under the Master in

	IND5004 Digital					of the model and also open for discussion which makes the class very vibrant and exciting."	Industrial 4.0 program
21/22 S2	Transformation	68 (52)	4.5	4.5^	4.2	"Highly interactive class. He responds immediately to students' questions which helps us to clarify our thoughts instantly and get the right thinking before proceeding with the lecture. In the end, we come out with clear collective thinking. This also results in students asking better questions as we go from class to class."	SCALE.
22/23 S2		63 (44)	4.4	4.4^	4.1	"He is able to give examples related to the actual work environment and clarify the doubts that we have during class and how to approach them."; "Quoting industry examples from his experience which provides us with value insights on how organization respond and react to digital transformation."	
23/24 S2		78 (49)	4.5	4.5^	4.3	"It has been my privilege to learn under Professor Tan, whose teaching methods are not only insightful but exceptionally practical. Throughout the course, Professor Tan masterfully integrated real–life examples with academic concepts, greatly enhancing our understanding and appreciation of the subject matter. This approach not only enriched our learning experience but also prepared us to apply these concepts effectively in real–world scenarios."	
Courses ta	aught once						
16/17 S1	IS3242 Software Quality Management	21 (11)	4.46	4.01	4.17	"Goes beyond the textbook to deliver a well-rounded course, preparing the students more practically for what is to come in the industry."; "well-prepared for lectures"	Taught for 1 semester, and due to the revamp of the degree program, the course was defunct.
18/19 S2	IS1103 IS Innovations in Organisations and Society	412 (147)	3.9	4.0	4.1	"He frequently tries to link a concept to real–world examples and makes use of different mediums like video to show this"	Course on ethics for year-1 SoC students. Stand-in for teaching the course for one semester (with two other lecturers) while the department searched for a replacement.

For the same activity type, at the same module level within the department.
 For the same activity type, at the same module level within the faculty.
 ^ IND5004 is the only core course in the Master Industrial 4.0 (by activity and level) offered by the Department of Information Systems & Analytics.

List of PhD Students Supervised

S/N	Period	Name	Dissertation Title	Role (Main/Co)	Placement (if known/ applicable)
1	Graduated in fall 2023	Mariya Tsyganova	Two Essays on Digital Transformation: Boundary Spanning and Followership Perspectives	Main	Accepted Assistant Professorship position from City University of New York, US, but could not secure a work visa; hence, had to pursue an industry job in Russia.
2	Graduated in winter 2021	Aseem Pahuja	Two Essays on Blockchains and Cryptocurrencies	Main	Lecturer (equivalent to Assistant Professor) at the University of Manchester, UK
3	Graduated in Spring 2019	Yuxin Huang	Regulating the Sharing Economy: A Law and Economy Perspective	Main	Associate Professor at Soochow University, China
4	Graduated Summer 2015	Lele Kang	IT Innovation in Business Organizations: Three Studies on Strategic and Implementation Issues	Co-supervisor (primary)	Assistant Professor at Nanjing University, China [Current: Professor at Nanjing University]
5	Graduated in Spring 2014	Qiqi Jiang	Empirical Investigations of Multimodal O[r]ganizations and Their Operating Environments	Co-supervisor (primary)	Assistant Professor at Tongji University, China [Current: Associate Professor at Copenhagen Business School, Denmark]
6	Graduated in Fall 2013	Liqiang Huang	Customer Evaluation of Online Product Reviews	Co-supervisor (primary)	Assistant Professor at Zhejiang University, China [Current: Professor at Zhejiang University]
7	Graduated in Fall 2013	Mengxiang Li	Designing Online Shopping Facilitating Information Research Agent	Co-supervisor (primary)	Lecturer (equivalent to Assistant Professor) at the University of Wollongong, Australia [Current: Associate Professor at Baptist University of Hong Kong]

List of MbR Students Supervised

S/N	Period	Name	Dissertation Title	Role (Main/Co)	Placement (if known/ applicable)
1	2021/22	Lee Min Woo	Investing in Cybersecurity Measures for a Healthcare Organization: A Risk Analysis Modeling Approach	Co-supervisor	PwC (South Korea)
2	2021/22	Ng Boon Wee	A Technology-First Approach Towards Digitalizing Medical Services: A Case Study of a Large Public Sector Institution in Singapore Research conducted in collaboration with the Ministry of Defense Singapore.	Co-supervisor (primary)	DSTA
3	2020/21	Lucie Paule- Aimee Donne	Hassle Factor: The Case of Hawkers and Mobile Payment Adoption in Singapore Research conducted in collaboration with the Digital Office of IMDA, Singapore	Co-supervisor	Industry (France)

List of Honours Students Supervised

S/N	AY	Name	Thesis Title	Comment
1	2021/22	Ng Jing Wen	Exploration or Exploitation Choices on Healthcare Technological Innovation: A Case Study of Telemedicine in Two Public Healthcare Clusters	Jing Wen received the Outstanding Computing Prize based on her dissertation (source: https://www.comp.nus.edu.sg/news/2022-ourp-ocp- 2122/). Her first job placement is at Micron.

Participation in Theses and Oral Examination Committees, and Others

S/N	AY	Name	Thesis/ Dissertation Title	Role	Type of Committee	 Degree (Honours/ Masters (PhD)
	2022/24					Masters/PhD)
1	2023/24	Muhammad	Blockchain Beyond Borders: Interdisciplinary Perspectives and	Examiner	Dissertation	PhD
		Nauman Shahid	Evolving Legitimacy in Ico-Driven Entrepreneurship		Examiner	
2	2023/24	Ming Li	Deep Facial Expression Representation Learning: Enhancing	Examiner	Dissertation	PhD
			Recognition Accuracy, Privacy Preservation, and Text-To-3D		Examiner	
			Generation			
3	2023/24	Alvaro Gonzalez	Two Essays on the Role of Financial Technologies in Societal	Examiner	Dissertation	PhD
		Rivas	Change: An Institutional Logics Perspective		Examiner	
4	2021/22	Jiamin Yin	Toward Intelligence Augmentation: Design Approaches for	Examiner	Dissertation	PhD
			Effective Deployment of Healthcare Artificial Intelligence		Examiner	
5	2021/22	Yihong Lan	Tradeoffs in Surveillance and Privacy Technologies	Examiner	Dissertation	PhD
		-			Examiner	
6	2021/22	Zhi Quan Ong	The Effects of Salient Nudging in Technology-Based Interventions	Examiner	Dissertation	PhD
			for Physical Activity: A Longitudinal Field Experiment		Examiner	
7	2020/21	Lin Qiu	Examining the health Impacts of Digital Technologies	Examiner	Dissertation	PhD
					Examiner	
8	2020/21	Ahmad Asadullah	SMEs and Digital Platforms: Opportunities and Challenges	Examiner	Dissertation	PhD
					Examiner	
9	2019/20	Xiaoyu Miao	Two Studies on Dynamic Online Marketing: Evidence from Eye-	Examiner	Dissertation	PhD
			tracking		Examiner	
10	2019/20	Xixian Peng	The Effects of Touch Versus Non-Touch Interfaces on Online	Examiner	Dissertation	PhD
		e e	Shopping Experience		Examiner	
11	2018/19	Zhiyi Wang	Understand Online Innovation Community: An Investigation of	Examiner	Dissertation	PhD
			Group Diversity in Open Collaboration		Examiner	

Invitations to Hold Design Studios or Conduct Master Classes in Leading Universities

Conducted two research seminar-based master classes at ETH Zurich:

- [1] Merging Research and Business Venture in Mobile Commerce Theories and Practices (Ph.D. Students, ETH Zurich, April 2010)
- [2] Conducting Experiment for Information Systems Research How to Apply to Mobile Commerce Study (Ph.D. students, ETH Zurich, November 2010)