

Editor's Introduction

In this issue, we proudly present to you the special issue on service science edited by Prof. Soe-Tsyur Yuan, a well-known scholar who has been very active in service science research for the past decade. In this special issue three papers are included, covering the topics of service transfer, service mindset, and service delivery. Beside this special issue, there is an additional research paper by Praveen Ranjan Srivastava et al. In their paper, entitled "Non Homogenous Poisson Process Model for Optimal Software Testing using Fault Tolerance," they propose a way to prioritize several modules of a software product and calculate optimal time and cost for testing based on non homogenous Poisson process. They also try to figure out whether the software could be released or not, after testing within a given time and cost. The authors advise that sometimes it is more profitable for an organization to release software even if it is not completely tested, because of limited time and resources.

We would like to give our sincere appreciation to Prof. Soe-Tyse Yuan for her excellent editorial effort in completing the special issue on service science. Special thanks also go to the authors and the reviewers for their collaborative effort to make this issue possible. Finally, to our loyal readers around the world, we hope you enjoy reading and benefit from the contents of the papers.

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Editorial: Special Issue on Service Science

Except those in the goods-producing sectors (agriculture, mining, construction, and manufacturing), the service sector encompasses all other industries including transportation, logistics, communication, wholesale and retail, trade, education, finance, insurance, real estate, healthcare, postal operations, government, and a variety of public services. The service industry has grown to dominate developed economies. Although the services, in their many different guises, have permeated modern economies, there is no clear understanding on *how to achieve systematic services innovation, how to define and measure service innovation, how to engineer customer psychology into service encounter and system design, how to control the adaptation of services in light of different forms of customer variability, how to develop innovated service features with IT, etc.* To help move this new field forward in Services Science, this special issue will serve as an initiative to achieve the multiple objectives in the context of the IS discipline together with the other cross-domain disciplines. The overall goal is to establish services-oriented research with foundational and interdisciplinary papers published within the MIS Review. This special issue includes three research papers. As follows show the summaries of the three papers.

Aleda V. Roth and Jeff Shockley in their paper “A Multidisciplinary Design Model for New Service Offering Transfers and Internal Integration in Retail Chain Services” examines the transfer of information and know-how in the innovation cycle through an organizational design system. This system leverages ICT to promote internal integration practices and operational consensus in retail chain services. This paper also offers a multidisciplinary framework of internal integration and several researchable propositions for future studies of integration in service science by incorporating insights from diverse areas including knowledge management, supply chain, and service operations theory.

Steven Alter in his paper “Applying a Service Mindset When Thinking and Communicating about Systems and Projects” explains four principles underlying a service mindset for systematically thinking and communicating about service systems and projects. The principles combine ideas from disciplines including information systems, strategy, marketing, and service operations. These principles then lead to three frameworks for thinking, communicating and innovating about IT-reliant systems, and these frameworks subsequently imply tools that can support business-oriented description and analysis of IT-reliant systems in organizations.

Wei-Feng Tung and Soe-Tysr Yuan in their paper “A Symbiosis-Based Value Co-Creation Framework for Service Delivery Design” presents a framework for service delivery system design as a means-end tool based on the ecological perspective for modeling, designing, developing and measuring the service systems (e-service) which can

fulfill (semi-)automated value co-creation between the service providers and the customers within service delivery. This framework also proposes a blueprint to identify a variety of intelligent service delivery system designs.

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About the guest editor

Soe-Tsyur Yuan received her Ph.D. degree in Computer Science from Oregon State University in 1994. She is a Professor of MIS Department and Director of Service Science Research Center at College of Commerce in National Chengchi University. Her research interests include Service Science, Management and Engineering, Service System Design, Service-Oriented Computing, Electronic and Mobile Commerce, Strategic Information Systems and Multi-agent Systems and Data Mining. She has been on the editorial boards for several international journals including *International Journal of Web Services Research*, *Service Oriented Computing and Applications*, *International Journal of E-Business Research*, *International Journal of Information Systems and Management*, etc.