
Foreword

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This special issue of the *International Journal of Services, Economics and Management* entitled ‘Design, Integration and Maintenance of Services for Developing Nations and Economies’ is edited by Jakita O. Thomas and Yolanda A. Rankin. I recall when both of these young researchers joined the Service Research group at IBM’s Almaden Research Center in San Jose, California. Both brought fresh perspectives and enthusiasm that I knew would eventually lead to new research directions, and I am delighted to see this current fruit of their collaboration. In their view, *in context service innovation*, which includes adapting technological or organisational capabilities in culturally sensitive ways for emerging economies, is just as important as creating new capabilities for developed economies. I agree.

Moreover, I am delighted that they kindly asked me to write the foreword to this special issue, which is on a topic near and dear to my heart. When I worked with Paul Maglio and others to establish the first service research group in IBM Research, we were cognizant of the potential of a new discipline emerging, not only to improve business to business service activities, but also to improve government and societal service activities as well. Service Science Management Engineering and Design (SSMED), or *service science* for short, aims to become a transdiscipline applicable to all *service systems* needed to ensure quality of life for all customers and providers of service capabilities, including transportation and supply chain, water and waste, food and products, energy and electricity, information and communication technology (ICT) infrastructure, construction and buildings, retail and hospitality/media and entertainment/sports and culture, banking and finance, healthcare and family, education and professions, city government and security, state/regional government and development growth, and national government and rights, laws, and policies. Together, all of these provide ‘whole service’ (Spohrer, 2011).

This special issue is a sign of hope that experience is accumulating, and collectively, we are getting better at *in context service innovation*. For example, one of the papers in this special issue examines a transportation and supply chain service system for Saudi Arabia, specifically addressing the redesign of inter-facility network of a parcel distribution company. The research highlights both technical and organisational-cultural challenges in service process design projects. A second paper investigates ICT infrastructure for a city in Thailand, specifically addressing the engineering analysis and economic evaluation of wireless access. The research highlights the interconnectedness

of technical and economic decision-making with implications for improving ICT infrastructure investments in emerging economies. A third paper explores knowledge-intensive food and product service systems in rural Kenya, specifically an experiment to improve crop diagnosis using a mobile interface to a crop diagnosis expert system. This work highlights the important role local community and education groups can play as part of design teams working to develop in context service innovations where cultural fit is a key focus. A fourth paper provides insights into education and professional service systems in Haiti, USA, and Mongolia, specifically reviewing experiences in the large-scale deployment of laptops to children. This work highlights the importance of listening to the many different voices from the field when designing in context service innovations, including students, teachers, educational administrators, family members, and others. As a final example, a fifth paper offers a service model for asynchronous healthcare delivery to rural developing communities in Africa, linking them with experts in US cities. This work highlights the incremental organisational steps that can be taken today that will eventually open up telemedicine opportunities to rural developing communities worldwide as technological innovations advance.

In addition to the contributions in this special issue, I would like to suggest several other reasons for hope that we are collectively evolving improved capabilities for in context service innovation:

- 1 Reynoso (2008) argues that one of the most important applications areas for service science education is the design of service innovations to address the needs of people and organisations at the Bottom-Of-the-Pyramid (BOP). Kiva.org is one example of an organisation connecting developed and emerging market nations.
- 2 Haselkorn (2008) who led an NSF Workshop on Humanitarian Service Science and Engineering found agreement on guiding principles that "... action and decision-making should occur at the lowest possible level and that all service programs and systems must be, first and foremost, socially, culturally and organizationally appropriate".
- 3 Medina-Borja (2008) who led an NSF Workshop on Models of Intercultural Service Systems observed "whenever the service provider and service recipient are of different cultures (as happens in an increasingly globalized world but also due to increased local diversity within the same locality), cultural clashes might occur".
- 4 Larson (2009) has partnered with educators in Jordan, Pakistan, and elsewhere to create BLOSSOM interactive video learning modules. He argues that education is the most important service sector, in both developed and emerging economies.
- 5 Romer (2009) gave a TED talk on the potential of chartered cities with improved rules to accelerate development and quality of life improvements for millions around the world.
- 6 Korsten and Seider (2010) have identified \$4 trillion in addressable inefficiencies in the service systems around the world. Hundreds of universities around the world are finding that their local city or metro-region accounts for over \$1 billion in addressable inefficiencies. Improving quality of life in cities is uniting stakeholders from both developed and emerging economies.

- 7 Janah (2010) describes Samasource, an especially appealing service model that gives microwork projects to some of the world's most marginalised populations. Also, the growth of offshore outsourcing is also driving more connections between developed and emerging markets, especially in areas such as call centres, back office, business process outsourcing (BPO), knowledge process outsourcing (KPO), software development, research and development (R&D). This trend is also increasing the demand for service science education in emerging market nations, as nations seek to compete on differentiated quality and complexity of service offerings, and not just labour cost advantages.

Perhaps the biggest reason for hope, beyond the papers in this special issue and the list enumerated above, is the accelerating rate of linkages between developing and emerging economies. An informal survey shows that journal articles with co-authors, more and more include co-authors from multiple nations, and also co-authors from developed and emerging market nations collaborating.¹ This is a very hopeful sign that in context service innovation may be accelerating. Recall, in context service innovation, which includes adapting technological or organisational capabilities in culturally sensitive ways for emerging economies, is just as important as creating new capabilities for developed economies. I agree, and would add that to meet the numerous grand challenges of the 21st century we must become much more systematic about both types of service innovation. The inefficiencies and waste in so-called developed economies is staggering, and the needs of emerging economies, those with less than \$20K GDP/capita, are urgent and pressing as well. I applaud Yolanda Rankin's and Jakita Thomas's special issue of *IJSEM*, and all the authors who contributed to this work. Well done.

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Note

- 1 I would like to thank Axel Hochstein of Stanford University for this insight.