

Services Sciences, Management, and Engineering Panel

Can we be systematic about services
innovations?

K. Govindarajan, HP Labs and E. M. Maximilien, IBM Almaden Research Center
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Motivation, facts, and trends

- ☞ Services have many guises
 - ☞ Business consulting and IT services
 - ☞ Education and training
 - ☞ Entertainment
 - ☞ Restaurants, health care, transportation, and so on
 - ☞ SOA, SaaS, infrastructure as a services, and so on
- ☞ Difficult to define
- ☞ Involves many disciplines and fields

Motivation, facts, and trends (*cont.*)

- ☞ US, UK, and other countries have experienced a shift to a services-dominant economy
 - ☞ 70% of GDP in US
 - ☞ > 50% US jobs are in services sector
 - ☞ Trend also catching in emerging economies
- ☞ No comprehensive theory
- ☞ No systematic understanding, cataloguing, and predictable recipes for fostering services innovations

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Challenge

- ☞ How to characterize innovations in services?
- ☞ Can we plan services innovations?
- ☞ Can we be systematic about services innovations?

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Panelists

- 👉 Industry
- 👉 Academia
- 👉 Various background
 - 👉 Business
 - 👉 Social sciences
 - 👉 Computer sciences
 - 👉 Engineering

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Henry Chesbrough



- 👉 Executive Director of the Center for Open Innovation at the Haas School of Business at UC Berkeley
- 👉 His new book, Open Innovation (Harvard Business School Press, 2003), articulates a new paradigm for organizing and managing R&D. Named a “Best Business Book of 2003” by *Strategy & Business* magazine, and the best book on innovation in 2003 on NPR’s All Things Considered
- 👉 *Scientific American* magazine named him one of the top 50 technology and business leaders for 2003 in recognition of his research on industrial innovation
- 👉 Ph.D. in business administration from UC Berkeley and MBA Stanford

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Nick Bambos

- ☞ Professor at Stanford University in the EE department and Management Science & Engineering department
- ☞ Heads the Network Architecture and Performance Engineering research group
- ☞ Ph.D. in EE and CS from UC Berkeley

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Calton Pu

- ☞ Professor and John P. Imlay, Jr. Chair in Software at the College of Computing, Georgia Institute of Technology
- ☞ Former faculty of Columbia University and Oregon Graduate Institute
- ☞ Research interests in systems software, enterprise computing, and internet data management
- ☞ Ph.D. from University of Washington

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Ravi Nemana

- 👉 Executive Director for SSME at the Center for Information Technology in the Interest of Society (CITRIS) at the UC Berkeley
- 👉 Heads the SSME curriculum and developing research program
- 👉 Senior Advisor at the Health Technology Center
- 👉 Member of the Technology Advisory Board of Sehda, Inc
- 👉 Degrees from UC Davis and University of Chicago

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Sara Moulton Reger



- 👉 Research Principal
- 👉 Consultant since 1988 in organizational design and change management, culture transformation and governance
- 👉 IBM Almaden Services Research
- 👉 Author of the book “Can Two Rights Make a Wrong? Insights from IBM’s Tangible Culture Approach”, IBM Press, 2006

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Questions

- ☞ General
- ☞ Business
- ☞ Social and Organizational
- ☞ Education and Training
- ☞ Technology

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General

1. Is there a science of services? How should it be characterized?
2. What are empirical, analytical, and theoretical models for understanding services? What base should we be drawing upon?
3. If there is a science of services, then how do we conduct experiments? Mathematical modeling and simulations, agent-based simulations, social science and anthropological types of experiments, Web-based experiments, technology, and others?

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General (*cont.*)

4. What are services innovations composed of?
5. Can we find principles for systematic services innovations?
6. Is SSME too broad and not focused enough? Is this breath vs. depth unbalance necessary?

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Business

1. What will businesses gain from SSME?
2. Why should businesses invest in understanding services innovation more systematically?
3. What are business models that are more appropriate for services-based vs. good-based economies?

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Social and Organizational

1. Why are services organizations interested in this space?
2. What are some of the key common problems that services organizations face?
3. What are some of the solution approaches that are being tried out successfully in various organizations?
4. What is the role of culture in services companies? Would understanding cultural aspects of services companies improve our chances for innovations?

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Education and Training

1. What is an example curriculum for SSME?
2. What are key skills important to a *service engineer*?
3. What can educators and universities do to prepare graduates for this shift in the labor force?

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Technology

1. How do we position SOA and Web services in a services-led economy? Are they the manifestation of this change?
2. How do we position Web 2.0 initiatives with the shift in services? Aren't Web 2.0 software-as-a-service applications the exact shift of information services on the platform enabled by the Web?
3. What is the role of technology in addressing services innovation?

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Mark Fulgham

☞ ITO Portfolio Manager, HP Business Services

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