Jim Spohrer Dossier December 22, 2020

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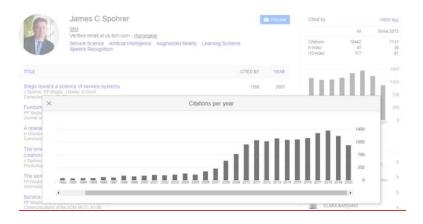
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Jim Spohrer (October 15, 2016 - Chongqing China) Keynote 9th ICSS - International Conference on Service Science

1. Executive Summary (practitioner, 18 years of service research)

For eighteen years, my passion has been to understand service and strengthen the "big tent" service research, teaching, and innovation community while growing the field. As a practitioner deeply entrenched in the IT industry in Silicon Valley, the spark ignited in 2002 as IBM service revenue grew larger than hardware and software sales combined. What could IBM Research do to connect to the service research community and be an innovation partner to advance the field?



The significance of the resulting contributions to the service research field, academia, government, and industry can be assessed in multiple ways:

- (1) conceptual contributions in highly cited publications (connecting IBM and the community)
- (2) education programs and teaching at universities globally (sponsorships and awards)
- (3) contributions to government policy in support of service science (economic policy)
- (4) community building with industry and professional association (ISSIP.org award programs)
- (5) service to the community (running conferences, reviewing papers, teaching classes)
- (6) awards and recognition (acknowledgement from peers the work is helpful)

Frequent contributions have been possible in all three of my roles at IBM over the past eighteen years while working on the advancement of service science and service systems innovation:

- (1) research led IBM Almaden Service Research, start service science initiative (2002-2009)
- (2) education led IBM Global University Programs, grow T-shaped SSME talent (2010-2017)
- (3) trusted AI leading IBM Cognitive OpenTech, imagine wiser service systems (2017-present)

My recent contributions to the field have been crafting a set of talks and grand challenges to inspire the next generation of students to go beyond smarter service systems and take on the challenge of building wiser service systems in the AI-era. This work is in progress today – being refined during frequent invited conference presentations and classroom teaching experiences, as well as executive briefing. As a practitioner in the service research community, my role has been to strengthen two-way linkages between industry and academia – a most rewarding journey.

2. Publications (h-index 47, all)

See Google Scholar – <u>James C. Spohrer</u>

My publications are a tiny fraction of IBM Research publications in service science. With Paul Maglio, my top collaborator at IBM and now UC Merced, my publications span service research in marketing, management, operations research, information systems, computer science, management, systems research, education and more. My attempt is to be a T-shaped professional/service researcher who is able to communicate the academic literature to industry executives across all industries as well as students from diverse disciplines. My writings stress the importance of service science based on Service-Dominant Logic as a world view - and drive multiple connections points between industry professionals and academic scholars. While most of the publications have taken years to get to the current citation counts, it is rewarding to see how fast the Handbook of Service Science, Vol. 2 is rising – continually striving for diversity and inclusivity to grow the big tent (Canada, Portugal, Japan, co-editors).

Select top cited publications and others (counts as of Dec 2020)

- 1599 Spohrer, Maglio, J Bailey, Gruhl (2007) Steps toward a science of service systems. IEEE Computer.
- 1549 Maglio, Spohrer (2008) Fundamentals of service science. Journal of the Academy of Marketing Science.
- 1411 Chesbrough, Spohrer (2006) A research manifesto for services science. Communications of the ACM (CACM).
- 936 Spohrer, Maglio (2008) The emergence of service science: Toward systematic service innovations to accelerate co-creation of value. Production and Operations Management.
- 823 Maglio, Vargo, Caswell, Spohrer (2009) <u>The service system is the basic abstraction of service science.</u> **Information Systems and e-business Management.**
- 701 Maglio, Srinivasan, Kreulen, Spohrer (2006) Service systems, service scientists, SSME, and innovation. CACM.
- 571 Maglio, Kieliszewski, Spohrer, Lyons, Patrício, Sawatani (2018) Handbook of Service Science, Volume II. Springer.
- 342 Spohrer, Demirkan, Krishna (2011) Service and science. The Science of Service Systems. Springer.
- 291 Maglio, Spohrer (2013) A service science perspective on business model innovation. Industrial Marketing Management.
- 261 Spohrer, Kwan (2009) <u>Service science, management, engineering, and design (SSMED): An emerging discipline-outline & references.</u>
 International Journal of Information Systems in the Service Sector (IJISSS).
- 171 Barile, Lusch, Reynoso, Saviano, Spohrer (2016) Systems, networks, and ecosystems in service research. Journal of Service Management.
- 73 Davis, Spohrer, Maglio (2011) <u>Guest editorial: How technology is changing the design and delivery of services</u>. **Operations Management Research.**
- 70 Spohrer, Golinelli, Piciocchi, Bassano (2010) An integrated SS-VSA analysis of changing job roles. Service Science.
- 65 Spohrer (2008) Services sciences, management, and engineering (SSME) and its relation to academic disciplines. Service Science.
- 59 Saviano, Barile, Spohrer, Caputo (2017) A service research contribution to the global challenge of sustainability. Journal of Service Theory and Practice.
- 46 Spohrer, Banavar (2015) Cognition as a service: An industry perspective. AI Magazine.
- 46 Lusch, Spohrer (2012) Evolving service for a complex, resilient, and sustainable world. Journal of Marketing Management.
- 43 Hsu, Spohrer (2009) Improving service quality and productivity: Exploring the digital connections scaling model. International Journal of Services Technology and Management.
- 43 Donofrio, Sanchez, Spohrer (2010) Collaborative innovation and service systems. Holistic engineering education. Springer.
- 36 Spohrer, Giuiusa, Demirkan, Ing (2013) Service science: reframing progress with universities. Systems Research and Behavioral Science.

3. Education (500+ universities supported)

To grow the economies of the world (and IBM service revenue!), new skills were needed that combined technology, business, and social sciences to better innovate service systems. From the start the education goal with SSME (and later SSME+DAPP), known as the emerging transdiscipline of service science, has been to integrate and not replace. The T-shaped service researcher or practitioner is deep in at least one discipline (academia), system (industry), and culture (geo), and also has a breadth of understanding of service from multiple disciplinary, system, and cultural perspectives. T-shapes are more adaptive, open, and entrepreneurial.

As Director of IBM Global University Programs, working with Wendy Murphy, Dianne Fodell, and over fifty IBM regional University Relations leads, IBM has supported hundreds of faculty and their efforts to enhance service research and education at 500+ universities globally. Service science was well aligned with IBM Smarter Planet, which also integrated cloud, mobile, social, data sciences, edge, security, artificial intelligence, quantum computing and other advanced technologies.

Partial lists of the 500+ university partners on SSME have appeared in publications as well as some listed on Wikipedia <u>SSME</u>.

Spohrer, Gregory, Ren (2010) The Cambridge-IBM SSME white paper revisited. Handbook of service science. Springer.

Spohrer, Fodell, Murphy (2012) Ten Reasons Service Science Matters to Universities. EDUCAUSE Review.

We stopped counting when we reached 500 universities with SSME-related programs, where IBM had provided some support, either funding for faculty, curriculum tools, or guest industry lectures.

The <u>curriculum outline</u> was integrative, <u>listing top existing textbooks</u> in service marketing, service operations, service computing, service engineering, service management, and more. The <u>SSME Curriculum Guide</u> emphasizes the need for <u>T-shaped skills</u>, as well as the <u>Systems-Disciplines Matrix</u> to connect industry (practice) and academia (theory).

Working with <u>Cambridge University (UK)</u>, <u>MIT (USA)</u> and <u>Tokyo Tech (Japan)</u> over the years has been essential for developing the concept of service system – though many others university-based service research centers have also shaped the evolving concept – as mentioned in my quote in this paper below:

Ostrom et al (2010) Moving Forward and Making a Difference: Research Priorities for the Science of Service. Journal of Service Research.

In sum, IBM support to global universities in the past two decades has encouraged a "big tent" view of the challenges and opportunities to develop service science to build a Smarter Planet. Was a privilege to lead the university team at IBM during the Smarter Planet era.

4. Policy (45+ governments supported)

Innovation policies and investments matter. For nearly two decades, I have been a practitioner meeting frequently with governments, academies of science, and ministries of education around the world, working closely with IBM Government Programs to encourage innovation investment, especially in service research, education, and innovation for economic growth. These efforts influenced service growth and investment policies, and also increased new faculty research interest in service science. IBM as a champion of SSME played a role in shifting the focus to knowledge-intensive service enabled by advanced technologies.

1. USA: America COMPETES Act - 121 STAT. 578 PUBLIC LAW 110-69—AUG. 9, 2007

SEC. 1005. STUDY OF SERVICE SCIENCE. (a) SENSE OF CONGRESS. It is the sense of Congress that, in order to strengthen the competitiveness of United States enterprises and institutions and to prepare the people of the United States for high-wage, high-skill employment, the Federal Government should better understand and respond strategically to the emerging management and learning discipline known as service science. (d) SERVICE SCIENCE DEFINED.—In this section, the term "service science" means curricula, training, and research programs that are designed to teach individuals to apply scientific, engineering, and management disciplines that integrate elements of computer science, operations research, industrial engineering, business strategy, management sciences, and social and legal sciences, in order to encourage innovation in how organizations create value for customers and shareholders that could not be achieved through such disciplines working in isolation.

Worked with NSF on <u>Smart Service Systems funding program to partner industry and academics</u>, as well as <u>National Academics on T-Summit</u> to partner industry and academics for real-world projects on service innovation. Helped bring ensure leading service researchers, including from around the world, participated in Washington DC workshops to inform program funding. Frequent trips and <u>presentations</u> to DC.

Maglio, Kwan, Spohrer (2015) Commentary—Toward a research agenda for human-centered service system innovation. Service Science.

- 2. Finland: VTT Scientific Advisory Board on Service Growth (2006-2010)
- 3. China: Eleventh-Five Year Plan and Chinese Academy Expert Briefing (2006-2011)
- 4. Japan: RISTEX S3FIRE, including major CRDS effort in 2016. (2004-2021)

Kwan, Spohrer, Sawatani (2016) Global Perspectives on Service Science: Japan. Springer.

5. UK: Royal Society Hidden Wealth, and preceded by Cambridge report (2005-2009)

Some other noteworthy include: Mexico (2005, ISSS keynote, Ministry of Education), Australia (2006, Frontier Panel, <u>CSIRO</u> meetings), Ireland (2006, Economic Development Agency), Germany (2006, Keynotes, Ministries), Canada (2008, IFIP keynote, Development Agency), Sweden (2008), India (2008, SPJIMR), Dubai (2008), Netherlands (2008), New Zealand (2008), Portugal (2010), Italy (2010), Egypt (2010, IAMOT keynote, Ministry of Education), Spain (2011), Singapore (2011), Indonesia (2011), Philippines (2011), Israel (2013), Denmark (2016).

In total, I have visited over 45 countries speaking at government agencies, national academies, science foundations, economic development agencies, and ministries of education to share a global perspective on service research and service science, to help build what IBM has called a Smarter Planet – based on Smarter Cities and Universities applying SSME.

5. Community Building (100+ companies supported)

To bring it all together requires industry partnerships too. IBM, Cisco, HP, and practitioners at many other companies worked to establish ISSIP.org (the International Society of Service Innovation Professionals). Engaging with industry has become easier recently, in the era of Trusted AI-driven service innovation, however in the beginning of the SSME effort the focus was on manufacturing companies shifting to service offerings for growth, and IT service providers (digital platforms) growing B2C, B2B B2G (smarter cities, RegTech) offerings.

ISSIP's mission, where I am a founding Board Member, is to grow service innovation and to do that by connecting industry service professionals, and <u>faculty and students in academia to work on real world projects</u>. This is the best way to create T-shaped professionals – working on real-world projects on multi-disciplinary teams.

The goal with ISSIP was to connect industry and academia with service-aligned professional associations. ISSIP's role is to amplify and <u>highlight existing professional associations across</u> the service disciplinary spectrum, without replacing any. <u>ISSIP Ambassadors</u> are experts who help connect ISSIP to other service research related associations, centers, and innovation organizations.

With the financial support of its industry, government, and university institutional members, ISSIP is also able to provide financial support for conferences and best paper awards to grow the big tent community.

My CV attached has a more comprehensive list of the executive briefings and hosted national delegations over the past eighteen years, and the large number of companies that have learned of ISSIP.org and had individuals join and participate. Some noteworthy examples include Google, Facebook, AWS, Apple, Microsoft, Xerox, Yahoo, Rolls Royce, Mitsubishi, Samsung, Tata, Oracle, Interbank, Wells Fargo, Visa, Elka Alliance, Tyco, Zurich Insurance - all with an interest in the future of smarter service offerings and wiser (more trusted and responsible) service systems. Executives from these companies are all invited to join ISSIP, and to consider providing a short book in the ISSIP Business Expert Press book collection that I co-edit – Service Systems and Innovation for Business and Society.

6. Service to Community

Key Relevant Roles

2020 Journal of Service Research - <u>Editor-in-Chief Selection Committee</u> — Member

2020 AHFE Human-Side of Service Engineering - Co-Chair

2015-2021 HICSS Service Science and Smart Service Systems - Mini-Track - Co-Chair

2003-2021 Journal of Service Research – <u>Editorial Advisory Board</u> – Member

2015 Local Host <u>Frontiers in Service</u> (San Jose, CA)

2007 Local Host <u>Frontiers in Service</u> (San Francisco, CA)

2018 Plenary Frontiers in Service (Austin, TX)

2016 Plenary Frontiers in Service (Bergen, Norway)

2012 Panel Moderator Frontiers in Service (College Park, MD)

2006 Panelist Frontiers in Service (Brisbane, Australia)

Over the years, IBM contributed speakers, awards, sessions, to support Frontiers in Service

2009-2021 Naples Forum on Service (Naples, Italy) — Co-organizer Service Science participation

Active and Advisory Roles - Promoting Service Science and Smarter Service Systems

2012-2021 Board of Directors International Society of Service Innovation Professionals

2012-2021 AHFE Scientific Advisory Board Human-Side of Service Engineering

2010-2021 HICSS Mini-track co-chair Smart Service Systems

2020-2021 Linux Foundation AI and Data Technical Advisory Council

2014-2017 T Summits, including at the National Academy of Science and Engineering DC

2017-2021 European Research Institute in Service Science

2017-2021 Journal of Value Creation

2015-2021 NHH Center for Service Innovation

2014-2021 Society of Serviceology

2014-2021 International Journal of Service Science Management Engineering and Technology

2012-2018 INFORMS Journal of Service Science

2011-2021 Service Education Research and Innovation (SERI) Initiative

2000-2021 Institute for the Future

1998-2021 Douglas Engelbart Institute

Teaching and Guest Lecturer, Executive Briefings

Too numerous, as I do not turn down opportunities to speak with students, including executive MBA Before pandemic I ran a program at Almaden that brought universities every month to IBM Almaden Also regularly speak at local universities (Berkeley, Stanford, SJSU, UCMerced, etc.), for example:

2005 Berkeley I-School – Service Science, Engineering, and Management

2009-2011 <u>Stanford Humanities – Service Innovation as Social Innovation</u>

2011-2021 UCMerced Service Science Course

2013 Sixty Chinese manufacturing CEOs visited SISU Exec MBA for this lecture

Post pandemic it is even easier to zoom into a classroom and present.

Many presentations to can be found at https://slideshare.net/spohrer

7. Awards and Recognition

Honors for the work that I have been privileged to lead for IBM as a practitioner and industry researcher over nearly two decades, as well as one relevant grant while I worked at Apple.

Awards

Service Systems Award (Daniel Berg, 2018)

Service-Dominant Logic Award at Service Forum (Stephen Vargo & Robert Lusch, 2013)

Outstanding Research Award at Service Forum (Evert Gummesson, 2013)

PICMET Fellow Award at Management, Engineering, Technologist (Dundar Kocaoglu, 2013)

IBM Innovation Champion Award - Centennial Icon of Progress for SSME (Sam Palmisano, 2011)

Apple DEST Award - Distinguished Engineer Scientist Technologist (Mark L. Miller, 1994)

At IBM Research, my team won numerous internal IBM awards for projects, including OIA (Outstanding Innovation Awards), OTAA (Outstanding Technical Achievement Awards), and patents.

Grants

Workshop: Industry-Academe Research Partnerships to Enable the Human-Technology Frontier for Next Generation Smarter Service Systems

Award Number: 1655029; Principal Investigator: Moghaddam, Y (ISSIP); Co-Principal Investigator: Kwan, SK (SJSU), Spohrer, JC (IBM); Organization: International Society of Service Innovation Professionals (ISSIP); NSF Award: Workshop for Smart Service Systems. NSF Organization: IIP; Start Date: January 1, 2017; End Date: December 31, 2017. Award Amount: \$49,930.00.

Workshop to Develop a Research Agenda for Service Innovation

Award Number: 1353337; Principal Investigator: Paul Maglio; Co-Principal Investigator: James Spohrer, Stephen Kwan; Organization: University of California - Merced; NSF Organization: CMMI Start Date:10/01/2013; Award Amount: \$47,313.00.

Collaborative Research: IT-Enhanced Market Design and Experiments

Award Number: 0527770; Principal Investigator: Daniel Friedman; Co-Principal Investigator: James Spohrer; Organization: University of California-Santa Cruz; NSF Organization: IIS Start Date:02/01/2006; Award Amount: \$515,241.00.

East/West Consortium: Next Generation Authoring Tools & Instructional Applications

Award Number: 9408607; Principal Investigator: James Spohrer; Co-Principal Investigator: P. LeBlanc (Houghton-Mifflin Publishers), John R. Anderson (CMU), Gerhard Fischer (U Colorado), Beverly Woolf (UMassAmerhst), Parvarti Dev (Stanford); Organization: Apple Computer Incorporated; NSF Organization: EIA Start Date:09/01/1994; Award Amount: \$6,150,000.00. Program Monitor: John Cherniavsky.

This grant while I was at Apple is included to illustrate my long commitment to improving skills for the future via industry, university, government collaboration to advance a shared research agenda.

Sample Patent (Jim has been awarded ten patents, see CV below)

Amir A, Flickner MD, Mcdavid DW, Spohrer JC, inventors (2013) International Business Machines Corporation, assignee. Management of usage costs of a resource. United States patent US 8,560,462. 2013 Oct 15.

8. Inspirations – A practitioner's service journey

In 2002, Paul Maglio asked me to return to IBM Research (from IBM Venture Capital Relations) and lead a Human Sciences team. My advice was to call it Service Research and align with IBM Global Services business.

From 2002 onward, Nick Donofrio, Doug Elix, Irving-Wladawsky Berger, Paul Horn, Robert Morris, Greg Gorman, and numerous other IBM Executives provided support for working with universities and governments around the world to help establish Service Science Management and Engineering. Service innovation integrates technology and business skills — a fantastic technology will go nowhere, without a value proposition, and people with skills to utilize it. In 2006, during a visit to IBM Almaden for a service science update to IBM CEO Sam Palmisano and IBM Board of Directors — the Smarter Planet initiative was conceived by many of the same executives in attendance. Sam Palisano (SP) liked Smarter Planet (SP) — it aligned with service science well.

In 2004, Henry Chesbrough asked if I knew how IBM helped start Computer Science — and by 2006, we had the special issue of Service Science in the Communications of the ACM!

In 2004, Roland Rust introduced me to the "big tent" approach to service research. The big tent rang true at IBM. Service marketing more than any other single discipline seems to strive for "big tent" — and this is truly remarkable!

Rust R (2004) A Call for a Wider Range of Service Research. Journal of Service Research.

In 2004, Bob Lusch visited IBM Almaden as part of a delegation from the Sloan Foundation looking at the future of skills and professional science master's degree. During the meeting, when service science came up — Bob slid a copy of "Evolving to a New Dominant Logic for Marketing" to me, and I started to read it, while the discussion continued. My eyes got big, I kept reading. My eyes got bigger. I kept reading. Paul and I had been working on a paper, but this was 100x better. In 2005, I finally had a chance to discuss Service Dominant Logic with Steve Vargo. With Bob and then Steve, two of the biggest inspiring moments for me on the service research journey.

In 2005, Christopher Lovelock, Evert Gummesson and I discussed "Whither Service Marketing" — new insights emerged for me. At the same time Ray Fisk, emphasized service design and arts, and Evert was pointing me at work on public policy. Papers began to appear on SSME+DAPP (Design Art Public Policy). Both Ray and Evert's contribution to the first Handbook of Service Science, truly helped solidify the field, history and future perspectives. MaryJo Bitner's and David Bowen's support for the handbook project always was instrumental to the big tent approach and connecting the past to the present and possible futures of the field. By 2010, we had the first handbook complete. Irene Ng caused me to re-think service systems and value several times — helping both on theory development as well as data-driven applications and market creation — huge opportunities for the field.

In 2006, Bo Edvardsson inspired me with an early view of sustainable service — that I still think about to this day. Bo has made support for the Nordic service community a great opportunity for me over the years.

Since 2006 the work of Alexandra Medina-Borja in the area of Service Systems Research has been on my radar, and in 2012 when Alex joined NSF on a rotation, her leadership has advanced smart service systems research, and connected academia and industry to make progress.

In 2007, Francesco Polese invited me to support the community in Europe through the Naples Forum on Service—with the great vision of the three pillars and striving for integration in the big tent of service research.

In 2008, Guangjie Ren and began collaborating on the Cambridge SSME report, and by 2010 he was an IBM Almaden Service researcher, part of a team creating great tools for IBM clients and service professionals. The Cognitive Component Business Model is still to me the foundation of a service system simulation tool needed to advance the field. So many other Almaden Service Researcher created innovation to advance the business — it was these projects that kept service science grounded in business reality. Later, Rama Akkiraju joined Almaden, and helped drive new service engineering directions as well as connections between service research and cognitive computing/AI.

In 2009, Jochen Wirtz and I sat on a balcony high-rise in Singapore — saying a toast to Christopher Lovelock — and excitedly conspiring about the future of the field — anticipating growing technological capabilities, and awaiting service robots and the rise of Trusted AI in service.

In 2011, Sam Palmisano (IBM CEO) selected SSME to be listed as an IBM Centennial Icon of Progress.

In 2012, Alessio Giuiusa was a student at University of Rome and visited for several months to learn more about service science and experience IBM Research in California — and today I am proud that he is a General Manager at Amazon leading their huge Rome distribution Center. So many students and visiting faculty as well as industry professionals over the years have benefitted from time at Almaden — all unique inspirations.

In 2015, Javier Reynoso suggested we plan our paper on "Quantum Service." Still thinking about that one.

In 2020, I am ready for my cognitive assistant. Our human, episodic memories are so fallible. Some of my memories of the journey are captured in my CV, others in my slideshare account or on my service science blog — others in random places on the web if I just search (slide 20, SSME leadership team at IBM). In future wiser service systems, our cognitive mediators will (in some ways) know us better than we know ourselves — and that can be a good thing. Cognitive mediators will exist for service systems at all levels, not just people and things (digital twins), but organizations, universities, cities, nations as well. The global service systems ecology modeling too is still needed.

These memories of moments of inspiration from key people continues to sustain me on the journey!

9. Resume and CV

See next pages...

Jim Spohrer

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Growing the emerging transdisciplinary service systems innovation community. Simplifying and opening the way to build and use AI-based digital workers in trusted service/augmented intelligence.

<u>Capabilities - Interests - Networks</u>

- Natural, cognitive/computer, and service systems (10 patents)
- Journals, books and conferences (100+ publications)
- Executive briefings and innovation speeches (60+ keynotes)
- · Mission-oriented teams; socio-technical service offerings
- AI for Augmented Intelligence in smarter/wiser service systems
- Strengthening global industry-university networks
- · Mentoring multidisciplinary, global students and teams
- Building systems to address complex, dynamic challenges
- Growing global ecosystems via publishing and conferences
- · Developing and evaluating venture and innovation portfolios

Work Experience

IBM (1999-Present) - San Jose, CA

Director IBM Cognitive Opentech Group/Trusted AI/Developer Ecosystems Group (2017-Present)

Director IBM Global University Programs and Cognitive Systems Institute (2009-2017)

Director IBM Research - Almaden Service Research Group (2002-2009)

Director and CTO IBM Venture Capital Relations Group (1999-2002)

Executive leader and co-founder of external-facing collaborative research and development organizations, including open-source communities and foundations, academic, venture, industry, and government for smarter and wiser service systems (socio-technical systems highlighting value cocreation mechanisms). Defining win-win education, research, and investment projects and initiatives, including building, understanding, and working with AI-based digital workers.

Apple (1989-1998) - Cupertino, CA

Distinguished Engineer Scientist and Technologist (DEST) (1995-1998)

Programmer/Manager, Apple Advanced Technology Group (ATG) (1989-1994)

Manager and developer of intelligent, multimedia tutoring systems, learning environments, and authoring tools, patents, and research publications. NSF PI on \$6M award with top universities. Hybrid open source and proprietary systems.

Verbex, Acquired by Exxon Enterprises (1978-1982) – Bedford, MA

Programmer/Senior Research Scientist (Dialogue Systems, original name)

Machine learning advances for speech recognition HW/SW products, software development, research publications.



Educational Experience

Yale (1982-1989) - New Haven, CT

Ph.D. and M.Phil., Computer Science/Artificial Intelligence / Cognitive Sciences

MIT (1974-1978) – Cambridge, MA

B.S., Physics (minor: Computer Science/Artificial Intelligence)

Achievements and Accomplishments

Smarter/wiser service systems innovation research; Citation H-Index 36 (Dec, 2020) Enthusiastic leader of industry, university, government, open source collaborations Developer/team leader creating code, systems, talks, publications, patents, practices Awards from IBM, Apple, NSF, ISSIP.org, and global service innovation community

2008 picture

Curriculum Vitae (CV) JIM SPOHRER

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Skype: james.clinton.spohrer (my full name)
LinkedIn: http://www.linkedin.com/in/spohrer/

CV Summary

Four most cited articles > 900 citations
Nineteen representative publications (1982-2020)
Career history and education background
Patents 10
Awards 5
Grants 4
Publications 100+
Keynotes/Plenaries 60+
Conference Co-Chair 10+

Four Most Cited Journal Articles (as of December 2020)

1603 Citations

Spohrer, J, PP Maglio, J Bailey, D Gruhl (2007) Steps toward a science of service systems. *IEEE Computer*. 40(1):71-77.

1557 Citations

Maglio PP, J Spohrer (2008) Fundamentals of service science. *Journal of the Academy of Marketing Science* (Special issue on Service-Dominant Logic), March 36(1):18-20.

1413 Citations

Chesbrough H, J Spohrer (2006) A research manifesto for services science. *Communications of the ACM*. July. 49(7):35-40.

936 Citations

Spohrer J, PP Maglio (2008) The emergence of service science: Toward systematic service innovations to accelerate co-creation of value. *Production and Operations Management.* 17(3):238-246.

Nineteen Representative Publications (1982-2020)

Pakkala D, Koivusaari J, Pääkkönen P, Spohrer J (2020) An Experimental Case Study on Edge Computing based Cyber-Physical Digital Service Provisioning with Mobile Robotics. In Proceedings of the 53rd Hawaii International Conference on System Sciences 2020 Jan 7.

Maglio PP, Kieliszewski CA, Spohrer JC, Lyons K, Patrício L, Sawatani Y, editors (2019) Handbook of Service Science, Volume II. Springer International Publishing.

Spohrer J (2016) IBM's service journey: A summary sketch. Industrial Marketing Management.

Spohrer J, Banavar G (2015) Cognition as a service. AI Magazine. Dec 31;36(4):71-86.

Demirkan H, J Spohrer (2015) T-Shaped Innovators: Identifying the Right Talent to Support Service Innovation. Research-Technology Management. Sep 1;58(5):12-5.

Freund LE, JC Spohrer (2013) The human side of service engineering. Human Factors and Ergonomics in Manufacturing & Service Industries. Jan 1;23(1):2-10.

Spohrer J, A Giuiusa, H Demirkan, D Ing (2013) Service science: reframing progress with universities. Systems Research and Behavioral Science. Sep 1;30(5):561-569.

Spohrer J (2010) IBM's University Programs. IEEE Computer. August; 43(8): 102-104.

Spohrer, J, SK Kwan (2009) Service Science, Management, Engineering, and Design (SSMED): An Emerging Discipline - Outline & References. International Journal of Information Systems in the Service Sector, 1(3):1-31.

Spohrer J, L Anderson, N Pass, T Ager, D Gruhl (2008) Service science. J. Grid Computing. 6(3):313-324.

Spohrer JC, DC Engelbart (2004) Converging technologies for enhancing human performance: Science and business perspectives. Annals of the NY Academy of Sciences. May 1;1013(1):50-82.

Spohrer J, M Stein (2000) User experience in the pervasive computing age. IEEE Multimedia. Jan-March 7(1):12-17.

Spohrer JC (1999) Information in places. IBM Systems Journal. 38(4): 602-628.

Norman, D, J Spohrer (1996) Learner-centered education. Comm. ACM, April, 39(4): 24-27.

Cypher, A, DC Smith, JC Spohrer (1994) KidSim: Programming agents. Comm. ACM, 37(7):55-67.

Spohrer, J (1995) Apple Computer's Authoring Tools Research Program. Artificial Intelligence Review June;9(2):85-89.

Spohrer JC (1992) MARCEL: Simulating Novice Programmers. NJ: Ablex.

Spohrer JC, E Soloway, E Pope (1985) A goal/plan analysis of buggy Pascal programs. Human Computer Interactions, 1(2):163-207.

Spohrer J, Brown P, Roth R (1982) Automatic labeling of speech. In Acoustics, Speech, and Signal Processing, IEEE International Conference on ICASSP'82. May; 7:1641-1644.

CAREER HISTORY (More Detailed)

IBM, San Jose, California (1998 - Present)

Director, IBM Cognitive OpenTech Group and Understanding Cognitive Systems (2016-Present)

- Open Technologies to Build Trusted AI. Assist IBM Research Chief Science Office Cognitive Computing. *Director, IBM University Programs (2009-2016)*
 - Directed investment in universities for research awards and adoption of cognitive cloud platform
 - Applied service science to create university programs for smarter cities/smarter campuses

Director, Almaden Services Research (2002-2009)

- Established first service research group in IBM Research, and launched service science initiative
- Research Division Outstanding and Accomplishments Awards for >\$500M impact on \$40M investment CTO, IBM Venture Capital Relations Group (1999-2002)
- Co-founded group to establish win-win relationships with VCs, entrepreneurs, and IBM Global Services *Functional Manager, Computer Science Foundations (1999)*
- Managed advanced user experience design group (HCI) as well as theory of computation group (Theory) Manager, USER Experience (HCI) Group (1998)
- Managed web services, user-aware and context-aware information environments (InformationInPlaces)

Apple Computer, Cupertino, CA (1989 - 1998)

DEST, Distinguished Engineer, Scientist, and Technologist (1996-1998)

- Conceived and led Educational Object Economy (EOE) and WorldBoard initiatives

Program Manager, Authoring Tools & Titles (1993 - 1995)

Managed authoring tools development, including SK8, Squeak, NSF/DARPA East-West Consortium

Programmer/Principal Scientist/Project Manager, End User Programming (1991 - 1992)

- Managed and co-invented KidSim/Cocoa, visual end-user programming environment

Programmer/Senior Scientist, Business Learning Research (1989 - 1990)

- Developed intelligent multimedia learning systems: MrFixit (Boeing) and Role'm (Apple Learning)

Verbex: Exxon Enterprises Acquisition, Bedford, MA (1978 - 1982)

Programmer/Senior Research Scientist (1978-1982)

- Speech recognition, Bayesian network machine learning HW/SW based on Markov models of human speech

EDUCATIONAL BACKGROUND

Yale, New Haven, CT; Ph.D. Computer Science (Sept 1982 - Aug 1989)

- Ph.D. Dissertation (Elliot Soloway's Lab): Simulation Models of Student Programmers
- M.Phil, M.S. Thesis (Roger Schank's Lab): Natural Language Understanding and Explanation
- Invited Lecturer and Consultant: University of Rome, Italy Spring/Summer 1989
- Graduate Student, Artificial Intelligence & Cognitive Science, Research Assistant, and Consultant

MIT, Cambridge, MA; B.S. Physics (Sept 1974 - June 1978)

- B.S. Thesis (Joe Perkell's Lab): Measuring Coarticulation in Human Speech Patterns
- Instructor of Invention and Entrepreneurship at Explorations Schools
- Undergraduate Student and Instructor

ACCOMPLISHMENTS & NETWORKS

Summary

- Science & Engineering impact from publications, keynotes, co-chair, patents, grants, open source software
- Business impact from new service and product offerings, and curriculum and mentoring for talent creation
- Relationship on tech and skills trends across industry, academia, government, globally and Silicon Valley
- T-shaped leader and innovator with depth (computer science, service science) and breadth (engineering, management, design, marketing, information systems, human factors, operations, university programs, venture capital)

Patents

Amir A, Flickner MD, Mcdavid DW, Spohrer JC, inventors (2013) International Business Machines Corporation, assignee. Management of usage costs of a resource. United States patent US 8,560,462. 2013 Oct 15.

Levine JL, Fairweather PG, Spohrer J, inventors (2004) International Business Machines Corporation, assignee. System and method for improving web site accessibility. United States patent US 6,714,963. 2004 Mar 30.

Peterson AR, Spohrer JC, inventors (2001) Apple Computer, Inc., assignee. Method and apparatus for storing and replaying creation history of multimedia software or other software content. United States patent US 6,226,785. 2001 May 1.

James A, Abbott CA, Arent MA, Czora GJ, Laffey JM, Luciw WW, Miller ML, Rose DE, Spohrer JC, Winkles JR, inventors (1998) Apple Computer, Inc., assignee. System and method for enhancing a user interface with a computer based training tool. United States patent US 5,864,844. 1999 Jan 26.

Peterson AR, Spohrer JC, inventors (1998) Apple Computer, Inc., assignee. Authoring tool comprising nested state machines for use in a computer system. United States patent US 5,801,687. Sep 1.

James A, Abbott CA, Arent MA, Czora GJ, Laffey JM, Luciw WW, Miller ML, Rose DE, Spohrer JC, Winkles JR, inventors (1998) Apple Computer, Inc., assignee. Topically organized interface with realistic dialogue. United States patent US 5,721,845. Feb 24.

Peterson AR, Spohrer JC, inventors (1997) Apple Computer, Inc., assignee. Method and apparatus for capturing transient events in a multimedia product using an authoring tool on a computer system. United States patent US 5,652,714. Jul 29.

Spohrer JC, inventor (1997) Apple Computer, Inc., assignee. Graphical interface for interacting constrained actors. United States patent US 5,600,774. Feb 4.

Cypher A, Smith DC, Spohrer JC, inventors (1996) Apple Computer, Inc., assignee. Extensible simulation system and graphical programming method. United States patent US 5,566,295. Oct 15.

Spohrer JC, Richards TB, Vronay DP, Chipkin AM, Kleiman RJ, Miller ML, inventors (1995) Apple Computer, Inc., assignee. Graphical interface for interacting constrained actors. United States patent US 5,450,540. Sep 12.

Grants

Workshop: Industry-Academe Research Partnerships to Enable the Human-Technology Frontier for Next Generation Smarter Service Systems

Award Number: 1655029; Principal Investigator: Moghaddam, Y (ISSIP); Co-Principal Investigator: Kwan, SK (SJSU), Spohrer, JC (IBM); Organization: International Society of Service Innovation Professionals (ISSIP); NSF Award: Workshop for Smart Service Systems. NSF Organization: IIP; Start Date: January 1, 2017; End Date: December 31, 2017. Award Amount: \$49,930.00.

Workshop to Develop a Research Agenda for Service Innovation

Award Number: 1353337; Principal Investigator: Paul Maglio; Co-Principal Investigator: James Spohrer, Stephen Kwan; Organization: University of California - Merced; NSF Organization: CMMI Start Date:10/01/2013; Award Amount: \$47,313.00.

Collaborative Research: IT-Enhanced Market Design and Experiments

Award Number: 0527770; Principal Investigator: Daniel Friedman; Co-Principal Investigator: James Spohrer; Organization: University of California-Santa Cruz; NSF Organization: IIS Start Date:02/01/2006; Award Amount: \$515,241.00.

East/West Consortium: Next Generation Authoring Tools & Instructional Applications
Award Number: 9408607; Principal Investigator: James Spohrer; Co-Principal Investigator: P. LeBlanc (Houghton-Mifflin Publishers), John R. Anderson (CMU), Gerhard Fischer (U Colorado), Beverly Woolf (UMassAmerhst), Parvarti Dev (Stanford); Organization: Apple Computer Incorporated; NSF Organization: EIA Start Date:09/01/1994; Award Amount: \$6,150,000.00. Program Monitor: John Cherniavsky.

HONORS

Awards

Service Systems Award (Contact: Daniel Berg, 2017)
Service-Dominant Logic Award at Service Forum (Contacts: Stephen Vargo & Robert Lusch, 2013)
Outstanding Research Award at Service Forum (Contact: Evert Gummesson, 2013)
PICMET Fellow Award at Management, Engineering, Technologist (Contact: Dundar Kocaoglu, 2013)
IBM Innovation Champion Award - Centennial Icon of Progress for SSME (Contact: Robert Morris, 2011)
Apple DEST Award - Distinguished Engineer Scientist Technologist (Contact: Mark L. Miller, 1994)

Small Sampling: Advisory and Supporter Roles

AAAI (F. Stein), ACM (D. Riecken), AHFE HSSE (L Freund), ATOM (Futurist Blog – K Gada), Brock Education Prize Jurist, CITRIS (Center for IT Research in Interest of Society) (JP Jacob), Cognitive Science Society, Digital Supply Chain Management Project (Advisor, 2015-Present, Contact: K Korpela), Explo! (B Trainor), Frontiers in Service (R Rust), ectalent (Advisor, 2014-Present, Contact: T West, CEO and Founder), HICSS (Co-Track Chair, Contact: H Demirkan), I4J (Innovation for Jobs – D Nordfors), ICServ – Serviceology (Y. Sawatani), IEEE, IFTF (Institute for the Future), INFORMS Journal of Service Science (P. Maglio), Journal of Value Creation (Gautam Mahajan), International Journal of Service Science, Management, Engineering, and Technology - Editorial Review Board Member [Melissa Wagner], ISSIP.org Board of Directors, SIG Cognitive (CSIG) co-lead, SIG Education (EdRes) co-lead, NSF PFI:BIC (Smart Service Systems), Journal of Service Research (MJ Bitner, R. Rust), NHH Center for Service Research (TW Andreassen), Open Health Systems Lab (OHSL – Anil Srivastava), Society of Serviceology of Japan [Tamio Arai, Yuriko Sawatani], TSummit.org(P. Gardner), VizCommunication (Advisory Board, 2006 – Present, Contact: CEO & Founder, R Emrani), VTT Finland (Scientific Advisory Board, 2005-2010, Contact: Y Neuvo, Chair and Former CTO Nokia), White House Office of Science and Technology Policy (S Subramanyam, EW Felten, T Kalil), WTInfoTech World-Around-Me (Advisory Board, 2010-Present, Contact: CEO & Founder, Tarun Sainani), Engelbart Institute/Bootstrap Institute (Board of Director, Contact: C Engelbart).

Small Sampling: ISSIP Key Collaborators and Co-Creators

R. Badinelli (VaTech & ISSIP), T. Boccanfuso (UIDP), H. Chesbrough (Berkeley), H. Demirkan (UWashington & ISSIP), D. Fodell (IBM & ISSIP), L. Freund (SJSU & ISSIP), P. Gardner (MSU), JP Jacob (Berkely, CITRIS), S. Kwan (SJSU & ISSIP), R. Larson (MIT), P. LeBlanc (SNHU), P. Maglio (UC Merced, formerly IBM), R. Miller (Olin Engineering), Y. Moghaddam (ISSIP), W. Murphy (ISSIP), A. Rayes (Cisco & ISSIP).

Small Sampling: Early Career Collaborations & Mentorships

PF Brown (Verbex 1978-1982), DC Engelbart (Bootstrap, 1994-2010), A Kay (Apple 1989-1997), S King (Hampden Academy, 1970), John Lilly (Apple 1995-1997), G Mooney (IBM VCR, 1999-2005), Md Abul Kalam Siddike (Mentor to JAIST student, 2016-present),

PUBLICATIONS

Books

Maglio PP, Kieliszewski CA, Spohrer JC, Lyons K, Patrício L, Sawatani Y, editors (2019) Handbook of Service Science, Volume II. Springer International Publishing.

Kwan SK, Spohrer JC, Sawatani Y, editors (2016) Global Perspectives on Service Science: Japan. Springer; May 26.

Sawatani Y, Spohrer J, Kwan S, Takenaka T, editors (2016) Serviceology for Smart Service System: Selected papers of the 3rd International Conference of Serviceology. Springer; Oct 20.

Freund, L. E., & Spohrer, J. C. (2012). Advances in the human side of service engineering. Taylor & Francis Group, LLC.

Demirkan, H., J Spohrer, V Krishna, eds. (2011). The science of service systems. Springer Science+ Business Media.

Demirkan, H., J Spohrer, V Krishna, eds. (2011). Service systems implementation. Springer Science+ Business Media.

Maglio, Paul P., Cheryl A. Kieliszewski, and James C. Spohrer, eds. (2010) Handbook of service science. Springer.

Cook, Curtis, Scholtz, Jeanne, and Spohrer, James C. (1993) Editors of Empirical Studies of Programmer Workshop 5, Ablex Publishers. N.J.

Spohrer, JC (1992) MARCEL: Simulating Novice Programmers. NJ: Ablex.

Soloway, E. and Spohrer, J.C. (1989) Studying the Novice Programmer. Editors. Lawrence Erlbaum Associates, Inc. Hillsdale, N.I.

Journal Articles

Bassano C, Barile S, Piciocchi P, Spohrer JC, Iandolo F, Fisk R (2019) Storytelling about places: Tourism marketing in the digital age. Cities. 2019 Apr 1;87:10-20.

Rouse WB, Spohrer JC (2018) Automating versus augmenting intelligence. Journal of Enterprise Transformation. 2018 Feb 7:1-21.

Siddike MA, Spohrer J, Demirkan H, Kohda Y (2018) A Framework of Enhanced Performance: People's Interactions With Cognitive Assistants. International Journal of Systems and Service-Oriented Engineering (IJSSOE). 2018 Jul 1;8(3):1-7.

Al-Badarneh A, Spohrer J, Al-Duwairi B, Shatnawi M. An Analysis Study of the Feasibility on Offering Bachelor's Degree in Service Science. EURASIA Journal of Mathematics, Science and Technology Education. 2018 Apr 21;14(6):2639-52.

Demirkan H, Spohrer JC (2018) Commentary—cultivating T-shaped professionals in the era of digital transformation. Service Science. 2018 Mar;10(1):98-109.

Spohrer J (2018) Commentary on 'Value Creation and Cognitive Technologies: Opportunities and Challenges'. Journal of Creating Value. 2018 Nov;4(2):199-201.

Saviano M, Barile S, Spohrer JC, Caputo F (2017) A service research contribution to the global challenge of sustainability. Journal of Service Theory and Practice.

Bassano C, Gaeta M, Piciocchi P, Spohrer JC (2017) Learning the models of customer behavior: from television advertising to online marketing. International Journal of Electronic Commerce. 2017 Oct 2;21(4):572-604.

Spohrer J (2016) IBM's service journey: A summary sketch. Industrial Marketing Management. Oct 1.

Peters C, Maglio P, Badinelli R, Harmon RR, Maull R, Spohrer JC, Tuunanen T, Vargo SL, Welser JJ, Demirkan H, Griffith TL (2106) Emerging Digital Frontiers for Service Innovation. Communications of the Association for Information Systems. 2016;39(1). URL: https://www.alexandria.unisg.ch/248801/1/JML_565.pdf

Barile S, Lusch R, Reynoso J, Saviano M, Spohrer J (2016) Systems, networks, and ecosystems in service research. Journal of Service Management. 2016 Aug 15;27(4):652-74.

Demirkan H, Spohrer JC, Welser, JJ (2016) Emerging service orientations and transformations (SOT). Information Systems Frontiers. Journal of Research and Innovation. December 14-18.

Demirkan H, Spohrer JC (2016) Digital Innovation and Strategic Transformation. IEEE.

Spohrer J, Banavar G (2015) Cognition as a Service: An Industry Perspective. AI Magazine. Dec 31;36(4):71-86.

Moghaddam, M, Bess, C., Demirkan, H, Spohrer, J (2014) How to Thrive as IT Professionals in a Converging ICT World. Cutter IT Journal.

Demirkan, H., Bess, C., Spohrer, J., Rayes, A., Allen, D., & Moghaddam, Y. (2015) Innovations with Smart Service Systems: Analytics, Big Data, Cognitive Assistance, and the Internet of Everything. Communications of the Association for Information Systems, 37(1), 35.

Demirkan H, J Spohrer J (2015) T-Shaped Innovators: Identifying the Right Talent to Support Service Innovation. Research-Technology Management. Sep 1;58(5):12-5.

Francesco Calza, F., Gaeta, M., Loia, V., Orciuoli, F., Piciocchi, P., Rarità, L, Spohrer, J., Tommasetti, A. (2015) Fuzzy consensus model for governance in smart service systems, Procedia Manufacturing 3: 3567 – 3574.

Demirkan, H., & Spohrer, J. (2014). Developing a framework to improve virtual shopping in digital malls with intelligent self-service systems. Journal of Retailing and Consumer Services.

Cesarotti, V., Giuiusa, A., Kwan, S. K., Introna, V., & Spohrer, J. (2014). Designing Multichannel Value Propositions to Enhance Value-Cocreation Phenomenon. International Journal of Service Science, Management, Engineering, and Technology (IJSSMET), 5(1), 14-44.

Al-Badarneh, A., Spohrer, J., & Al-Duwairi, B. (2014). A Model Curriculum for Undergraduate Program in IT SSME. International Journal of Service Science, Management, Engineering, and Technology (IJSSMET), 4(4), 1-18.

Freund LE, JC Spohrer (2013) The human side of service engineering. Human Factors and Ergonomics in Manufacturing & Service Industries. Jan 1;23(1):2-10.

Spohrer J, A Giuiusa, H Demirkan, D Ing (2013) Service science: reframing progress with universities. Systems Research and Behavioral Science. Sep 1;30(5):561-569.

Maglio, P. P., & Spohrer, J. (2013). A service science perspective on business model innovation. Industrial Marketing Management, 42(5), 665-670.

Spohrer J, Fodell D, Murphy W (2012) Ten Reasons Service Science Matters to Universities. Educause Review. 47(6):52-64.

Spohrer J, Golinelli GM, Piciocchi P, Bassano C (2010) An integrated SS-VSA analysis of changing job roles. Service Science. Jun;2(1-2):1-20.

Bowen N, Spohrer J (2010) Viewpoint: The future of computing practice and education. Computer. Mar;43(3):86-9.

Demirkan, H. and Spohrer, J. C., (2010) "Servitized Enterprises for Distributed Collaborative Commerce," International Journal of Service Science, Management, Engineering and Technology, 1 (1), 68-81.

Spohrer J (2010) IBM's University Programs. IEEE Computer. August; 43(8): 102-104.

Maglio PP, Vargo SL, Caswell N, Spohrer J (1009) The service system is the basic abstraction of service science. Information Systems and e-business Management. Sep 1;7(4):395-406.

Spohrer, J, SK Kwan (2009) Service Science, Management, Engineering, and Design (SSMED): An Emerging Discipline - Outline & References. Int. J. of Information Systems in the Service Sector, 1(3):1-31. (http://www.cob.sjsu.edu/ssme/refmenu.asp)

Hsu C, Spohrer JC (2009) Improving service quality and productivity: exploring the digital connections scaling model. International Journal of Services Technology and Management. Jan 1;11(3):272-92.

Maglio, PP, J Spohrer (2008) Fundamentals of service science. J. Academy of Marketing Science (Special issue on Service-Dominant Logic), March 36(1):18-20.

Zhao, J.L., C. Hsu, H. J. Jain, J. Spohrer, M. Taniru, and H. J. Wang (2008) "ICIS 2007 Panel Report: Bridging Service Computing and Service Management: How MIS Contributes to Service Orientation?" Communications of the Association for Information Systems, Vol. 22, article 22, March 2008, pp. 413-428.

Spohrer J, PP Maglio (2008) The Emergence of Service Science: Toward systematic service innovations to accelerate cocreation of value. Production and Operations Management. 17(3): 238-246.

Spohrer, J. L. Anderson, N. Pass, T. Ager, D. Gruhl (2008) Service Science. J. Grid Computing. 6(3):313-324.

Spohrer, J., PP Maglio, J Bailey, D Gruhl (2007) Steps toward a science of service systems. Computer, 40(1):71-77.

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Chesbrough, H, J Spohrer (2006) A research manifesto for services science. Comm. ACM. July. 49(7):35-40.

Maglio, PP, J Kreulen, S Srinivasan, J Spohrer (2006) Service systems, service scientists, SSME, and innovation. Comm. of the ACM. July. 49(7):81-85.

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Spohrer, JC (1999) Information in Places. IBM Systems Journal. 38(4): 602-628.

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Spohrer, Jim, Sumner, Tamara, Buckingham Shum, Simon (1998) Introduction to the Articles and Debate in this Special Issue, Special Issue by the East/West Group on Authoring Tools and the Educational Object Economy. http://www-jime.open.ac.uk/.

Roschelle J, B Henderson, J Spohrer, J Lilly (1997) Banking on Educational Software: A Wired Economy Unfolds. Technos. Winter;6(4):25-28.

Norman, D, J Spohrer (1996) Learner-Centered Education, Comm. of the ACM, April, 39(4): 24-27.

Spohrer, J (1996) WorldBoard. The Apple Research Lab Review, No. 10, Dec. 1996. (A version of this paper is reprinted http://www.service-science.org/)

Spohrer, J (1995) Apple Computer's Authoring Tools Research Program. Artificial Intelligence Review June;9(2):85-89.

Cypher, A, DC Smith, JC Spohrer (1994) KidSim: Programming agents without a programming language. Comm. of the ACM, 37(7):55-67.

Gray WD, JC Spohrer, TR Green (1993) End-user programming language: The CHI'92 workshop report. ACM SIGCHI Bulletin. Apr 1;25(2):46-50.

Bennett, R.E., Rock, D.A., Braun, H.I., Frye, D., Spohrer, J.C., Soloway, E. (1990, June) The relationship of expert-system scored constrained free-response items to multiple-choice and open-ended items. Applied Psychological Measurement, 14(2): 151-162.

Pea, R., Soloway, E., and Spohrer, J.C. (1987) The buggy path to the development of programming expertise, Focus on Learning Problems in Mathematics, Winter Edition, Volume 9, Number 1.

Spohrer, J.C., and Soloway, E. (1986, July) Novice mistakes: Are the folk wisdoms correct? Communications of the ACM, 29(7):624-632. ACM Press, New York, NY.

Spohrer, JC, E Soloway, E Pope (1985) A goal/plan analysis of buggy Pascal programs. HCI, 1(2):163-207.

Spohrer J, Brown P, Roth R (1982) Automatic labeling of speech. In Acoustics, Speech, and Signal Processing, IEEE International Conference on ICASSP'82. May; 7:1641-1644.

Book Chapters

Maglio PP, Kieliszewski CA, Spohrer JC, Lyons K, Patrício L, Sawatani Y (2019) Introduction: Why Another Handbook? InHandbook of Service Science, Volume II 2019 (pp. 1-9). Springer.

Piciocchi P, Bassano C, Pietronudo MC, Spohrer JC (2019) Digital Workers in Service Systems: Challenges and Opportunities. In Handbook of Service Science, Volume II 2019 (pp. 409-432). Springer.

Spohrer J, Siddike MAK (2018) The Future of Digital Cognitive Systems: Tool, Assistant, Collaborator, Coach, Mediator. In Araya D. Augmented Intelligence: Smart Systems and the Future of Work and Learning. Peter Lang International Academic Publishers; 2018 Sep 28.

Reynoso J, Barile S, Saviano M, Spohrer J (2018) Service Systems, Networks, and Ecosystems: Connecting the Dots Concisely from a Systems Perspective1. The SAGE Handbook of Service-Dominant Logic. 2018 Oct 8:241.

Ng I, Maglio PP, Spohrer J, Wakenshaw S (2018) The Study of Service: From Systems to Ecosystems to Ecology. The SAGE Handbook of Service-Dominant Logic. 2018 Oct 8:230.

Sawatani Y, Spohrer J, Kwan S, Takenaka T (2017) Serviceology for Smart Service System. Springer, Tokyo; 2017. Spohrer, J (2016) Innovation for Jobs with Cognitive Assistants: A Service Science Perspective. In Disrupting Unemployment, Editors Nordfors, D, Cerf, V, Senges, M. 2016 157-174. URL http://www.amazon.com/Disrupting-Unemployment-David-Nordfors/dp/152384583X

Siddike MA, Demirkan H, Kohda Y, Spohrer J (2018) Strategic Relationships: A Service Science Perspective. InHandbook of Research on Strategic Alliances and Value Co-Creation in the Service Industry 2017 (pp. 1-21). IGI Global.

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Donofrio N, C Sanchez, J Spohrer (2010) Collaborative innovation and service systems: Implications for institutions and disciplines. In D. Grasso (Ed), Holistic Engineering Education, (pp. 243-269). NY: Springer.

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Spohrer J, Anderson L, Pass N, Ager, T (2008) Service Science and S-D Logic. Otago Forum 2: 4-18.

Spohrer, J., & Kwan, S. K. (2008) Service Science, Management, Engineering, and Design (SSMED): Outline & References. In Ganz, W., & Spath, D. (Ed.), The Future of Services – Trends and Perspectives. Stuttgart, Germany: Frunhofer-Institut Arbeitswirtschaft und Organisation.

Spohrer, J. (2006) Service Innovations, Employment, and Exports. In Moderne Dienstleistungen, Edited by Deryk Streich and Dorothee Wahl. Campus Verlag, Frankfurt, Germany. ISBN 978-3-593-38219-7.

Spohrer, Jim., Paul P. Maglio, Doug McDavid, and James W. Cortada (2006). Convergence and coevolution: Towards a services science. In W. S. Bainbridge, M. C. Rocco (Eds). Managing Nano-Bio-Info-Cogno Innovations: Converging Technologies in Society. Springer: NY.

Spohrer JC, DC Engelbart (2004) Converging technologies for enhancing human performance: Science and business perspectives. Annals of the New York Academy of Sciences. May 1;1013(1):50-82.

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Cypher, A., Smith, D.C. Spohrer, J.C. (1997) KidSim: Programming agents without a programming language. In Jeffrey M. Bradshaw (Ed.) Software Agents, MIT Press, Cambridge, MA. pp. 165-190.

Gray, WD, BE John, BA Nardi, M Petre, JC Spohrer, AA Turner (1993) End-User Programming. In: Cook, Curtis, Scholtz, Jean, Spohrer, James C. (eds.) Empirical Studies of Programmers - Fifth Workshop December 3-15, Palo Alto, California. pp. 1-2.

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Spohrer, J.C., and Soloway, E. (1986) Analyzing the high frequency bugs in novice programs. In Soloway and Iyengar (Eds.), Empirical Studies of Programmers. Ablex, Inc. Norwood, NJ.

Conference Papers

Spohrer J, Belov S, Palo M (2020) Introduction to the Minitrack on Business Intelligence, Analytics and Cognitive Technologies for Industry-Specific Applications. Proceedings of the 53rd Hawaii International Conference on System Sciences.

Pakkala D, Koivusaari J, Pääkkönen P, Spohrer J (2020) An Experimental Case Study on Edge Computing based Cyber-Physical Digital Service Provisioning with Mobile Robotics. In Proceedings of the 53rd Hawaii International Conference on System Sciences 2020 Jan 7.

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Glenn Withiam; Rohit Verma; Cathy A. Enz; Sheryl E. Kimes; Kate Walsh; Judy A. Siguaw (Cornell School of Hotel Administration), Achieving Success through Service Innovation: Cases and Insights from Hospitality, Travel, and Tourism, published September 23, 2016

Richard Reisman (Teleshuttle Corporation), FairPay: Adaptively Win-Win Customer Relationships, published September 20, 2016

Adi Wolfson (Green Process Center, SCE - Sami Shamoon College of Engineering), Sustainable service, published July 5, 2016

HB Casanova (IBM & Boeing), Matching Services to Markets: The Role of the Human Sensorium in Shaping Service-Intensive Markets, published May 14, 2016

Anders Gustafsson (Karlstad University); Per Kristensson (Karlstad University); Gary Schirr (Radford University); Lars Witell (Linköping University), Service Innovation, published April 21, 2016

PRESENTATIONS & PROFESSIONAL ACTIVITIES

2020

2020 Message: The pandemic has accelerated the need for Trusted AI in wiser service systems. IBM Research has donated AI Fairness 360, AI Explainability 360, and Adversarial Robustness Toolbox to Linux Foundation AI & Data Foundation (LF AI and Data), and IBM has become a premiere member to advance Trusted AI. Jim Spohrer, elected LF AI and Data, Technical Advisory Council, Chairperson.

Keynote/Plenary Presentations

INFORMS Service Science - ICSS 2020 - Post-Pandemic Society: A Service Science Perspective - Plenary

IEEE Service Science - InTech Forum - Invited Plenary Industry Speaker ICSSI 2020 – The Future of Service Science in the AI Era – Keynote Portugal - IESS - International Explorations of Service Science - Solving Disciplines - Keynote

Professional Activities

Journal of Service Research, Editor-in-Chief Selection Committee - Member AHFE HSSE - Human-Side of Service Engineering - Conference co-chair AAAI FSS - AI in Government and Public Sector - Program Committee AIS/ICS Meeting - Intelligence Augmentation - Panelist European Commission Workshop - Future of Skills/Earning in Platform Economy - Speaker Creating Value Conference - Smart Service and Robotics in Pandemic - Panelist

Teaching

Italy – Smart Service and Industry 4.0 – Speaker Japan – <u>Inventing Things that Matter</u> – Speaker USA - Michigan State University - Future of Universities and T-Shapes for Smart Service - Speaker USA - Linux Foundation - Trusted AI and Open Source/Innovation Communities - Speaker USA – San Francisco - <u>Economic Round Table</u> – Speaker USA - Cogswell College - Intro to AI: Service Science Perspective - Speaker USA - Stanford SIR - AI at IBM: Service Science Perspective - Speaker

2019

2019 Message: Trust is key in both service science and open-source software AI. IBM has open sourced it Trusted AI software suite and has plans to move it to the Linux Foundation for vendor-neutral open governance.

Keynote/Plenary Presentations

Italy – Naples Forum on Service – <u>Solving Service Science</u> – Plenary

Professional Activities

IFTF - Future of Society: A Service Science Perspective - Panelist STS Roundtable - Smart Service Systems - Panelist HICSS 2019 - Future of Skills and Work - Panelist HICSS 2019 - Intelligence Augmentation - Panelist

Teaching

Kazakhstan delegation - Future of AI: A Service Science Perspective - Speaker USA - Berkeley - Open Innovation Progress: A Service Science Perspective - Speaker Nordics delegation - Future of AI: A Service Science Perspective - Speaker Italy - Milano Politech - Future of AI: A Service Science Perspective - Speaker USA – Northwestern University – Future of AI: A Service Science Perspective – Speaker USA – Harvard, MIT, Babson – <u>AI4Good</u> – Speaker Denmark delegation – Let's think together about the future of AI – Speaker Norway delegation – Let's think together about the future of AI – Speaker YPO delegation - venture investors - Future of AI: A Service Science Perspective - Speaker 2018 Message: Trusted open source software depends on open access, commercialization friendly licenses for use (Apache 2.0), and open governance — the project hosted in a non-profit foundation, which owns the trademark and legal rights, and establishes a multi-vendor technical steering committee and governing board. These are best practices for Trusted AI and open source community building.

Keynote/Plenary Presentations

WeB e-Business Conference – <u>Service Science</u> - keynote

ITQM - Service Science and Service Systems - keynote (Daniel Berg Award)

Frontiers in Service (Austin, TX) - A service science perspective on opentech AI - plenary

UCLA BIT Conference - Future of AI and Service System Evolution - plenary

Japan – JAIST World Conference – AI and Service Science – plenary

Professional Activities

ICIS 2018 Doctoral Consoritum - Service Science - invited speaker

Germany Fraunhofer – Working Life of the Future – panelist

Denmark delegation – <u>Future of AI: A Service Science Perspective</u> – speaker

Sweden delegation - Future of AI: A Service Science Perspective - speaker

Finland - OpenTechAI - OpenTechAI a Service Science Perspective - speaker

USA DC – NSF – <u>Future of Education</u> – speaker

German delegation – <u>Measuring Progress</u> – speaker

UIDP - Measuring Progress - speaker

OpenPower Meetup - Measuring Progress - speaker

Finland – OpenTechAI – <u>OpenTech AI</u> – speaker

Japan – IBM Research Japan – OpenTech AI – speaker

USA DC – NSF – <u>Future of Education</u> – speaker

Teaching

USA - Northwestern University - Future of AI: A Service Science Perspective - speaker

USA - Naval Post Graduate School - AI for Space: A Service Science Perspective - speaker

USA – Intel – Future of AI – speaker

USA - Cabot - Measuring Progress - speaker

Finland - Aalto U - Future of AI: A Service Science Perspective - speaker

Japan – JAIST Tokyo Satellite – Preparing for the Future of AI with Service Science – speaker

2017

2017 Message: Trust depends on openness. Open source software communities are building the future of AI, and the future of AI needs to be connected to trust in service systems.

Keynote/Plenary Presentations

USA DC - AAAI FSS - A look toward the future - Keynote

Professional Activities

USA DC – AAAI FSS – <u>AI in Government</u> – Speaker

Denmark delegation - Welcome to Almaden - Speaker

IFTF – <u>AI Leaderboards</u> – Speaker

National Academics - Integrated Higher Education - Speaker

Teaching

Berkeley Innovation Forum – <u>Transitioning to new business models</u> – speaker

Almaden student groups - You say you want a revolution - speaker

2016

2016 Message: The age of cognitive mediators has almost arrived (counting by decades). Augmented intelligence via artificial intelligence and machine learning is poised to transform individuals and institutions — and the future of learning, skills and jobs, as the design loop for evolving socio-technical system accelerates. An important first step into this new age is learning to build, understand, and work with digital cognitive systems on our smartphones, at home, on the job, or in transit; this is what T-shaped professionals need to know today. From the first computer science departments in 1940's to the first transistor, integrated circuit, mainframes, microprocessors, DRAMs, and then personal computers in the 1970's, was as thirty-year journey. From the first service science courses to smart/wise service systems that allow people to adapt to exponential change and technology depreciation within their lifespans is the challenge of our world today unfolding over the coming few decades. The Moore's law of service systems suggests both the technological cost of value co-creation interactions decreasing, as well as the need to understand better service system entity capabilities, constraints, rights, and responsibilities in the decades to come.

Keynote/Plenary Presentations

Mitsubishi HQ Distinguished Speaker Series, Tokyo (Nov)

Japan Science and Technology Society 5.0 Research Symposium, Tokyo (Nov)

IC Service Science, Chongqing, China (Oct)

Korea SMB Innovation Conference, Seoul, (Oct)

Singularity University AI Day, Mountain View, CA (July)

Frontiers in Service, Bergen, Norway (June)

Business Intelligence and Service Science (BISS), Brightlands Smart Services Campus, Maastricht, NL (June)

ESW – Engineers for Smarter World Annual Conference, Berkeley (April)

Panel Moderator

AAAI Fall Sessions – AI and Education, Washington, DC (Nov)

IBM Research CSOC Cognitive Horizons Colloquium - Curriculum, Yorktown (Sept)

IBM EMEA Academic Days – Future Skills, Lyons, France (May)

T Summit - Future Skills, Washington DC (Apr)

HICSS 49 - Service Science, Kaui, HI (Jan)

Panelist

Science Agora Conference – Smart/Wise Service Systems, Tokyo (Nov)

IC Service Science, Chongqing, China (Oct)

"The Road Ahead of Service Science and Services Computing"

Moderator: Prof. Zhiyong Feng from Tianjin University, China.

Dr. Jim Spohrer, IBM Director, Understanding Cognitive Systems

Prof. Xiaofei Xu, Vice President, Harbin Institute of Technology

Dr. Ying Huang, VP, Cloud and Intelligent Computing at Lenovo Research & Technology

Prof. Shuyu Chen, Party Secretary of School of Software, Chongqing University

Prof. Zhongjie Wang, Harbin Institute of Technology, PC Co-chair of ICSS 2016

Korea SMB Innovation Conference, Seoul (Oct)

"Opportunities and Challenges of Consulting in the era of Industrial Revolution (IR) 4.0"

Moderator: Prof. Il-Yeol Song, College of Computing and Informatics, Drexel, USA

Dr. Sorin Caian

Prof. Jin Jung, Hansung University, Seoul, Korea (Mr. Moon, dinner; President Lee)

PC, Co-chairs Jin-Taek and Do-Yeon

CCC Cyber-Social-Learning-Systems (Aug)

NHH Center for Service Innovation Advisory Board Meeting, Bergen, Norway (Jun)

OECD at Russell Sage Foundation – AI and Skills, NYC (May)

National Academy of Sciences – Future of Skills (Apr) Stanford I4J People-Centered Internet (Mar) AAAS - Reality 2.0 (Feb) HICSS 49 – Cognitive and Smart Service Systems (Jan)

Presenter

ISSIP-NSF - Living Inside Robots

Society for Science Presidents (CSSP), Washington, DC (Dec, Remote)

UC Merced Maglio Service Innovation Class (Nov)

IBM World of Watson (WOW), Las Vegas (Oct)

Korea SMB Innovation Conference Tutorial, Seoul (Oct)

CSIG speaker series, webinar (Oct, Sept, Aug, Jun)

AHFE Human-Side of Service Engineering, Orlando (Jul)

KEEN- Innovation Skillsets and Mindsets, webinar (Apr)

Air Force Research Lunchtime Speaker Series, Washington, DC (Apr)

T Summit – ISSIP, Washington, DC (Apr)

Executive Briefings

Elka Alliance, SVL San Jose (Oct), JST (Sept), Tyco (Sept), Altria, Almaden visit, San Jose (Aug), DB, Galvanize, San Francisco (Jul), Zurich Insurance, Menlo Park (June)

Projects

IBM Research CSOC UCSD Cognitive Horizons eldercare and microbiome (Nov-Dec), CSOC MacArthur Foundation 100&Change global literacy proposal (Sep), CSOC White House OSTP Preparing for Future of AI report (Jul), Watson Movie Trailer Project: Introduced Jordan Benedict of Fullscreen to John R. Smith of IBM (Jul), CSOC NextGen Cognitive Curriculum and CSIG (Jul-Dec), IBM GUP Transformation - 6 Rs, Academic Initiatives, Kivuto On-the-hub (Jan-Jun)

Professional Association Activities

ISSIP Quarterly, Monthly, Weekly speaker series (Jan-Dec), T Summit at National Academy of Science, Washington DC (Apr), ISSIP HICSS Mini-track co-chair.

Other Advisory Board Meetings, Briefings, Reviews, Visitors

Institute for The Future (IFTF) Palo Alto, CA (Jan-Dec), NSF PFI:BIC Smart Service Systems (Jan-Dec), CITRIS Berkeley (Jan – Dec), I4J (Jan – Dec), San Jose State University Engineering Smart Service System Design and Innovation Center (Jan – Dec), WTInfoTech World-Around-Me (Jan-Dec), Aalto U Finland [Mitronen Lasse] (Dec), Northeastern University Silicon Valley (Aug), Signal INDUNA Gruppe, Lyons, France (May), UIDP (Apr), Almaden University Day (Jan-Dec), SENA Columbia (Nov), SJSU China Exec MBA [Qian Yang] (Oct), Peking U (Sept), Germany University [Malte Ennen] + SJSU (Sept), University of Taiwan + Singularity University (Aug), SJSU and Chinese University of Hong Kong (Jul), Lapland Finland [Satu Miettinen, Marja Toivonen] (Jul), Aarhus University, Denmark (Jul), U Ottawa (May), U Cakgary (Feb), SKKU Korea (Jan), Hartnell College & Salinas H. S. (Jan).

2015

2015 Message: The building blocks are getting better fast. Vendors are competing to provide more and better cognitive building blocks on their cloud platforms. My first program was on punch cards in 1972. Today over faculty and students globally have access to Watson on Bluemix from IBM. Nevertheless, building digital cognitive systems is still hard, and just getting the data sets ready is a large time-consuming prerequisite task. Smart service systems depend increasingly on people and organizations using digital cognitive systems that augment their intelligence.

Keynote/Plenary Presentations

World Open Innovation Conference, Santa Clara Convention Center, CA (Nov) e-Learning and Innovative Pedagogies, UC Santa Cruz, CA (Nov) ACM ICER – Future of Programming, Omaha, NB (Aug) Naples Forum on Service, Naples, Italy (Jun) Tokyo Tech Systems Science Symposium, Tokyo (Feb)

Panel Moderator

Frontiers in Service, San Jose, CA (Jul) ICServ, San Jose, CA (Jul)

Panelist

IFTF Future Cities – Rules for Rules, Palo Alto, CA (Aug) AAAS Annual Meeting – Reality 2.0, San Jose, CA(Feb)

Presenter

IFTF Workable, Palo Alto, CA (Sept)
CSIG – Future of Phones, webinar (Aug)
UCSB Industry Speaker Series, Santa Barbara, CA (May)
IBM GBS Lunch and Learn – Social Physics, webinar (Apr)
Haas CIO Event, Berkeley, CA (Mar)
Haas Dynamic Capabilities Course, Berkeley, CA (Mar)
UIDP T-Shaped Skills for the Future, webinar (Jan)
Royal College of Arts London - Service Innovation, webinar (Jan)
HICSS 48 – Smart Service Systems (Jan)

Executive Briefings

New Zealand Society for Agriculture Innovation, Stanford (Jun). Almaden visitor briefings for Berkeley, Stanford, SJSU, UCSB, UCSC, SCU, Virginia Tech, U_Washington, Georgia_Tech, RPI, FIU, MIT, CMU, Stevens, NCSU, Drexel, CITRIS, U_Cambridge, U_Warwick, ASU, UMBC, Purdue, Lebanon U Beirut, Portugal U Porto, Japan U Tokyo, Ohio State University, Canada U Montreal, NZ U Auckland, Japan U Tsukuba, U SouthCarolina, Germany U Aachen.

Projects

IBM Global University Programs 6 R's (research, readiness, recruiting, revenue, responsibility, and regions) with SUR, Faculty, OCR, PhD Fellowships awards across GEOs, BUs, and Themes, including CCAMSSIoT (Cognitive Cloud Analytics Mobile Social Secure Internet of Things), IBM Watson on Bluemix scaling, IBM Africa Skills and Leading to Africa (Morocco, Kenya, Nigeria, South Africa, Egypt). IBM Watson on Bluemix scaling to faculty and students (Jan-Dec).

Professional Association Activities

ISSIP Quarterly, Monthly, Weekly speaker series (Jan-Dec), T Summit at MSU E. Lansing, MI (Apr)

Other Advisory Board Meetings, Briefings, Reviews, Visitors

Co-chaired three conferences. Frontiers, ICServ, and T Summit. Also one day a month for university students to visit Almaden. Support for ISSIP President Jeff Welser (Jan – Dec). NSF PFI:BIC Smart Service Systems (Jan-Dec), CITRIS Berkeley (Jan – Dec), I4J (Jan – Dec), San Jose State University Engineering Smart Service System Design and Innovation Center (Jan – Dec), WTInfoTech World-Around-Me (Jan-Dec), Nominator Carnegie Fellows Program [Vartan Gregorian] (Dec)

2014 Message: Industry faces large and growing skills gaps in emerging areas like cognitive computing, data science, cybersecurity, internet of things, and service science, to name a few. Universities are retooling themselves to address the skills gaps, but they cannot do it alone. Academic-industry-government collaboration is required to create future ready T-shaped professionals, with problem-solving depth and communications breadth, in the cognitive era. Cities and universities can be viewed as nested, networked smart service systems, which are the nodes in the flow of top talent globally.

Keynote/Plenary Presentations

Aspen Forum - Future of Higher Education, Aspen, CO (June)

Panel Moderator

IBM Almaden Cognitive Colloquium (Oct) Bay Area Economic Council Workshop, Almaden, San Jose, CA (Jan)

Panelist

MIT-NSF Smart Service Systems, Cambridge, MA (Nov) America Association of Colleges and University, Las Vegas, NV (Mar) IJCAI AI Summit, NYC (Feb)

Presenter

AAAI Fall, Washington, DC, webinar (Nov)

IBM Service Science PIC, Almaden, San Jose, CA (Nov)

NCET2 University-Industry Venturing, San Mateo, CA (Oct)

Triple-Helix University-Industry Venturing, Half Moon Bay, CA (Oct)

CSIG - Cognitive Systems Institute Group, webinar (Sept)

White House Office of Science and Technology Policy Future Skills Event, San Francisco, CA (Aug)

AHFE Human Side of Service Engineering, Krakow, Poland (July)

Frontiers in Service – AEIOU Talk, Miami, FL (June)

Vail Healthcare Conference, webinar (May)

Stanford/IFTF Roundtable, Palo Alto, CA (May)

IBM EMEA Academic Days, Milan, Italy (May)

Press

Wall Street Journal, Forbes.com, UC Daily Californian, SkilledUp blog

Executive Briefings

Ireland Development (June), Columbia Ministry of Education, Almaden (Mar), Finnish Ministry of Employment (Feb), Japan Science and Technology (Feb)

Projects

IBM Global University Program leadership, monthly list detailed executive activities below.

Professional Association Activities

ISSIP Quarterly, Monthly, Weekly speaker series (Jan-Dec), T Summit at IBM Research, Almaden, San Jose, CA (Apr)

Other Advisory Board Meetings, Briefings, Reviews, Visitors

Co-chair of MIT-NSF Smart Service Systems Workshop, Cambridge, MA (Nov), Co-Chair Frontiers in Service conference, San Jose, CA (July), Co-Chair ICServ – Serviceology conference, San Jose, CA (July), NSF PFI:BIC Smart Service Systems (Jan-Dec), CITRIS Berkeley (Jan – Dec), I4J – Innovation For Jobs, with David Nordfors and Vint Cerf (Jan – Dec).

January

Advisor to NSF and National Academies on university research, skills, innovation policy Hosted UC Office of President and Bay Area Economic Council to develop PhD career roadmaps Co-lead weekly service science (SSME) education and research calls (ISSIP) on global calls

Monthly global university team calls for best practices

Weekly university team calls for interlock and information from other groups at IBM

Monthly STG University Alliance interlock calls for revenue pipeline

Quarterly CC&CA interlock calls for Smarter Cities Challenge, IBMers on Campus, Africa, etc.

Monthly Education Leadership calls

Monthly 1-1 with core university team to review team responsibility matrix (quarterly status checks)

Bi-annual university steering committee update calls

Bi-annual interlock with Academy of Technology on university programs

Weekly IBM on Campus and Collaborative Innovation Center calls

Monthly award program review and approval cycles, including transition to Connections & revised processes

Mentoring IBMers seeking new opportunities in IBM and career development

Mentoring students and recent graduates interested in jobs at IBM

February

Presented Cognitive Systems Vision and Grand Challenges at AAAI/IJCAI Future of AI Meeting in NY

Hosted University Programs Kickoff and Strategy Meeting in NC

Cognitive Systems Institute Meeting at Georgia Tech in GA

FIU and UMiami Collaborations in FL

Hosted Finnish Ministry of Employment briefing on future skills and jobs at Almaden

Hosted Japanese Science & Technology briefing on future skills and jobs at Almaden

UCalgary Canada Briefing on university programs, future of skills and jobs at Almaden

Presentation to Canada K-12 delegation at Almaden

March

Presented IBM strategy at UCSC leadership advisory board meeting in CA

Presented initial university strategy for Cognitive Computing strategy meeting in NY

Virginia Tech collaboration meeting in CA

Developed new Early Career & Talent Program for Almaden with company "ectalent"

WSJ Interview IBM and Data Science Skills

MSU future of skills conference (T Summit) planning at Almaden

Stanford, Berkeley, and 10 other top university Cognitive Systems Institute Collaboration Planning

Government of Colombia Future Skills and Jobs briefing at Almaden

Edited Service Thinking Book for Business Expert Press with Forward by Linda Sanford

African Academies of Science and Engineering Briefing at Almaden

Hosted two Japanese delegations on service science (SSME) at Almaden

Judge for Berkeley Haas startup competition aligned with IBM platforms in CA

Hosted U South Carolina collaboration discuss at Almaden

Represented GUP at WW Research Strategy Meeting in NY

April

Identify faculty and academic for IBM Signature moment events (storage)

Weekly Cognitive Systems Institute best practice university interaction calls

Hosted Purdue, UC London, Karlstadt U, UCLA, U Washington, SJSU delegations at Almaden

USA & World Report interview on future data science skills and jobs

Co-PI and co-host NSF service science workshop in DC at National Academy building

Hosted Japanese companies research and open innovation delegation at Almaden

Presented IBM strategy at Stanford Triple-Helix/Regional economic development conference in CA

Presented IBM university programs at Almaden University day with SJSU and Chinese universities

Present IBM strategy to NIH delegation at Almaden

Presented to America Association of Colleges and University Annual event in Las Vegas, NV

Hosted University of Twente delegation at Almaden

Presentations on IBM university strategy & Cognitive Systems Institute at IBM Academic Days in Milan, Italy

Hosted and mentored top student from University of Modena at Almaden for Cognitive Systems

NY Academy of Science collaboration discussion at Almaden

Forbes.com interview on future of data science skills and jobs (CCAMSS message)

Provided input to IBM Education messaging, strategy, and IBV whitepaper

Participated in IBM EcoSystem IdeaSlam to further develop influencer network for social media, etc.

Presented IBM strategy at Stanford/IFTF Roundtable on future of cities and universities

UC Daily Californian interview on future of data science skills and jobs (CCAMSS message)

Presented IBM strategy at Vail Conference Poland (by phone)

Presented IBM research, university benchmarking at AI Deep Dive for JEK and Mike Rhodin at Yorktown

Northwestern University, Stanford, Berkeley Cognitive Systems Institute meetings

June

WPI Daily Herd interview on future of data science skills and jobs (CCAMSS message)

Berkeley Exec MBA and IBM alignment presentation at Berkeley

Stanford D School and Cognitive Computing Course meeting at Stanford

Hosted Wright State University delegation at Almaden

Participated in IBM EcoSystem IdeaSlam to further develop influencer network for social media, etc.

Stan Litow and Baruch College discussion that lead to Watson Cognitive Competition

Hosted Ireland Development and University delegation at Almaden

Service Science PIC discussions and support

Keynote of IBM university programs and future of universities at Aspen Institute in CO

Presented past, present, and future of service science at Frontiers in Service 2014 in FL

Collaboration meetings at FIU and UMiami in FL

Presentation on IBM Strategy to Singapore delegation at IBM Almaden

Wright State University collaboration discussions

SkilledUp Blog interview on future of data science skills and jobs (CCAMSS message)

July

Purdue Cognitive Systems Institute collaboration telecon

IBM Research in Residence Planning Calls

Host UMelbourne, ASEE GLF, Berkeley, SJSU, Stanford, CMU, MIT delegations at Almaden

Hosted second University of Twente delegation at Almaden

Co-chair 2015 Frontiers in Service Conference monthly planning calls start

Co-chair 2015 ICServ Conference monthly planning calls start

Presented Cognitive Systems Institute, and T-shapes at AHFE HSSE-2014 conference in Krakow, Poland

NUS Collaborative Innovation Center on Data Science telecon on Cognitive Systems Institute

Briefed new GCG University Program lead

August

Launched Cognitive Systems Institute website and LinkedIn group

IDG and Forrester interview on future of data science skills and jobs, and cognitive (CCAMSS)

White House OSTP presentation on future of CCAMSS in San Francisco

Presented IBM strategy to UCSC university day event at Almaden

Purdue Polytech, GWU collaboration for Cognitive Systems Institute and T-shape skills

Berkeley, Stanford, CMU, RPI, Georgia Tech calls on Cognitive Systems Institute strategy, NSF funding, etc.

Presentations for UDIP and NCET2 on industry-university collaborations

AshokaU judge for university innovation competition

September

IBM Analyst briefing on Cognitive Systems Institute

Eight new faculty awards to expand quantity and quality of Cognitive Systems Institute

Added additional content to Cognitive Systems Institute website and LinkedIn group

1-3-9 talk at quarterly Almaden meeting

Hosted Finnish delegation for Cognitive Systems Institute and Smart Service Systems
Cognitive Systems Institute presentation to NUS Singapore Cognitive Colloquium (by phone)
Presentation to Japan U Tsukuba university day presentation on IBM strategy
Notre Dame collaboration discussion at Almaden - cognitive assistants for material discovery possibility
Syracuse U collaboration discussion at Almaden - cognitive assistants for financial advisors and faculty
Case Western Reserve collaboration discussion at Almaden - cognitive assistants for bio-chemical engineers
IT Slovenia interview on IBM strategy, universities, skills, cognitive (CCAMSS)
Moderator Panel at IBM Almaden Cognitive Colloquium

October

Yorktown Cognitive Systems Institute faculty/student poster sessions
Planning meetings for Latin America University Programs lead
Forbes interview on regional economic development and university role
Presentation to 120 Brazilian university students at university day at Almaden
Provided local faculty names for Accelerated Discovery Lab external speaker series
Presentation on IBM strategy to NCET2 university incubator meeting in San Mateo, CA
Presentation on IBM strategy to Triple-Helix university venture meeting in Half Moon Bay, CA
U Alberta Canada collaboration discussion by phone - cognitive assistants for education
Drexel U collaboration discussion by phone - cognitive assistants for challenged individuals to get jobs
IBM Research Service Science PIC (Professional Interest Community) event at Almaden
IEEE Smarter Planet Challenge Judge

November

Almaden Cognitive Systems Institute Panel moderator of final session at Almaden Kickoff speaker for Service Science PIC meeting at Almaden Co-Chair MIT and NSF meeting smart service systems in Cambridge MA Berkeley and CITRIS collaborations meetings at Berkeley Ecosystem faculty influencer invitations and discussions

December

Continued internal and external customer and stakeholder interactions Finalized award programs for year, and year-end review of team

2013

2013 Message: Globally, universities are one of the largest employers of knowledge workers in cities, and both cities and universities should be viewed as smart service systems from a service science perspective, containing key sources of big data and talent to enable a smarter planet; IBM encourages our industry partners to take a six R's approach to working with universities — research, readiness, recruiting, revenue, responsibility, and regions — for university interactions, in which regional economic development derives from more startups on industry platforms generating revenue and jobs regionally and globally connecting faculty-students-industry-mentors in project-based challenge competitions.

Keynote/Plenary Presentations

Zermatt Summit – Partnering for Skills Plenary, Midway, UT (Dec)

K-Tech @ Silicon Valley - Software Convergence Plenary, Santa Clara Convention Center, CA (Nov)

Center for Service Leadership Annual Meeting Plenary - Smart Analytics, Phoenix, AZ (Nov)

ICServ – Serviceology Keynote, Tokyo (Oct)

PICMET – "I have MET the future, and its students!" Keynote, San Jose, CA (Aug)

Awarded PICMET Fellow - Service Management, Engineering, and Technology

KIT KSRI Service Innovation 5th Anniversary Keynote – Karlsruhe, Germany (June)

Naples Forum - Ten Reasons Service Science Matters More Than Ever - Keynote, Naples, Italy (June)

Awarded Vargo & Lusch Service-Dominant Logic Award

Awarded Gummesson Outstanding Research Award

ICSS Service Science - Reframing Big Data and Service Science Keynote, Hong Kong (Apr)

IESS Exploring Service Science - Smarter Planet and Big Data Keynote, Porto, Portugal (Feb)

Nevada Department of Education Dinner Keynote, Las Vegas, NV (Jan)

Panel Moderator

BHEF National Cybersecurity Networking Meeting, Almaden (Nov)

Panelist

K-Tech @ Silicon Valley, Santa Clara Convention Center, CA (Nov)

American Association of State Colleges and Universities - Industry Skills Perspective, Los Angeles (Oct)

Presenter

BHEF National Cybersecurity Networking Meeting, Almaden (Nov)

NSF PFI:BIC Virtual Forum on Smart Service Systems, webinar (Sept)

Intel HQ Speaker Series, Santa Clara, CA (June)

Samsung Silicon Valley HQ Speaker Series, Santa Clara, CA (June)

Berkeley Haas Open Innovation Industry Lecture - Chesbrough, Berkeley (Apr)

Lumina Foundation - Higher Education Transformation, Indianapolis (Apr)

Press, Interviewed, Quoted

Chronicle of Higher Education, Fast Company, De Grandbois Y (2013) Service Science and the Information Professional. Chandos Publishing; Oct 31.

Executive Briefings

SJSU Chinese Executive Delegation, San Jose, CA (Sept)

Projects

IBM ISSIP Service Thinking Student Projects – mentored 15 students over 3 months (July)

IBM Collaborative Innovation Centers and IBMers on Campus executive sponsor with partners...

Singapore NUS, NYU CUSP, UChicago, Israel Ben-Garion

UBM GUP Regional Economic Development executive sponsor with partners...

IBM Canada RED (U Toronto, Offsets), IBM Sweden RED (Linneaus University, IKEA).

IBM Africa Skills/Readiness and Recruiting.

IBM ISSIP.org Skills for 21st Century Roadmap, T Summit event planning, MyT-Score workshops.

IBM ISSIP SSME Curriculum, T-Shape Mentorships, Industry Emeritus Program.

IBM Global University Program leadership, monthly list detailed executive activities below.

Professional Association Activities

ISSIP Quarterly, Monthly, Weekly exec team calls and speaker series (Jan-Dec)

Other Advisory Board Meetings, Briefings, Reviews, Visitors

NSF PFI:BIC Smart Service System Program. UIDP, BHEF, NCET2 and other organizations linking industry-university for innovation (research), next generation skills (readiness), future talent (recruiting), industry platforms (revenue), industry mentors (responsibility), and startups for regional economic development (regions).

2012

2012 Message: Building a Smarter Planet is a system of systems challenge, and service science provides the underlying science to understand socio-technical systems such as cities and universities. NSF (USA), JST (Japan), Tekes (Finland), and other funding agencies are investing

in smart service system innovations. Service-Dominant Logic provides and important worldview and foundation for service science and future service research. Cognitive computing focuses on intelligence augmentation and scaling expertise, and depends on advances in artificial intelligence, machine learning, and socio-technical systems design. The growing number of skills gaps in the IT industry are best addressed by academic-industry-government collaborations to create more future ready T-shaped adaptive innovators, with problem-solving depth and communications breadth.

Keynote/Plenary Presentations

Sweden-US Bridge Conference – Smarter Planet Keynote, Stockholm (Sept)
AHFE Human Factors and Ergonomics – Service Science Keynote, San Francisco (July)
ISSS Systems Science – The Skeleton of Science Plenary, SJSU, San Jose, CA (June)
BestSERV Forum – Future Industrial Service Research Keynote, Helsinki, Finland (May)
Symposium on Systems Innovation – Future Cities and Service Science Keynote, Tokyo (May)

Panel Moderator

AHFE Human-Side of Service Engineering Co-chair, Moderator, San Francisco (July)

Panelist

NSF NBIC (Nano-Bio-Info-Cognitive) Panel, Washington, DC (June) IFTF Workshop – Redesigning Higher Education, Palo Alto, CA (Mar)

Presenter

NPSMA Professional Science Masters Association, webinar (Nov)
ISSIP Introduction, Almaden (Oct)
Silicon Valley Venture Capital Roundtable, SAP, Palo Alto, CA (Oct)
ASEE Engineering Education Global Leadership Forum, Almaden (Sept)
Service Science Society of Australia Thought Leadership Series, webinar (Aug)
Grassroots Innovation Group – Future of Innovation, EMC, Santa Clara, CA (June)
CMU Silicon Valley NASA Ames Research – Future of Cities, Mountain View, CA (June)
Intel Lunch and Learn – University Programs as a Service, Santa Clara, CA (Feb)

Press

Interview in CIMS Newsletter: Fall Wolff, M. (Sept)

Executive Briefings

Swedbank Breakfast – Competing in a Service Economy, Stockholm (Sept) IBM Denmark HQ – Smarter Planet and Service Science, Copenhagen (Sept) IBM Finland HQ – Smarter Planet and Service Science, Helsinki (Sept)

Projects

IBM IDR Smart Camps & Global Entrepreneur Program judge IBM Cloud Academy/VCL, IBM CC&CA Smarter City Challenge and CityForward.org advocate IBM Students for a Smarter Planet, IBMer on Campus program executive sponsor

Professional Association Activities

ISSIP Quarterly, Monthly, Weekly exec team calls and speaker series (Jan-Dec)

Other Advisory Board Meetings, Briefings, Reviews, Visitors

NSF PFI:BIC Smart Service System Program. UIDP, BHEF, NCET2 and other organizations linking industry-university for innovative research (research), next generation skills (readiness), and future talent (recruiting).

2011 Message: This is the centennial year for IBM, innovative, big (blue), and now officially old, with a mission to build a Smarter Planet, that is instrumented, interconnected, and intelligent. In the 1940's, IBM helped create the discipline of Computer Science, which has been a major source of talent for IBM and the IT industry for decades. IBM is now helping to establish Service Science, as the discipline that modularizes and packages knowledge from many disciplines to create the T-shaped talent, with problem-solving depth and communication breadth, needed to build a Smarter Planet. Watson Jeopardy! also provides IT for intelligence augmentation of T-shaped service scientists to build Smarter Service Systems – from health and education to finance and transportation. Across all industries, the best way to predict the future is to inspire the next generation of students to build it better. Honored as an innovation champion for the IBM Centennial Icon of Progress, the Creation of SSME – Service Science, Management, and Engineering.

Keynote/Plenary Presentations

Otago Forum - Service Science and Policymaking Plenary, Dunedin, New Zealand (Dec)

UTEP Engineering in the Conceptual Age - Holistic Service Engineering Keynote, El Paso, TX (Sept)

PICMET Sustainable Energy and Holistic Service Engineering Keynote, Portland, OR (Aug)

IRSSM-2 Service Management - T-shaped Service Scientists Keynote, Yogyakarta, Indonesia (July)

IJCSS - Service Science Progress and Directions Keynote, Taipei, Taiwan (June)

Swiss Institute of Service Science Annual Conference – Service Science Keynote, Bern (Feb)

Mid-Pacific ICT Annual Conference - Future of Skills Keynote, San Francisco, CA (Jan)

Panel Moderator

RIT Service Innovation Event, Rochester, NY (Apr) SRII Mega-topics for Service Research, Half Moon Bay, CA (Mar)

Panelist

Singapore Training Vision – Skills for the Future Conference Plenary Panel, webinar (Aug)
Center for American Progress – Service Science for Policymakers, Washington, DC (June)
AUTM University Technology Managers Annual Conference, Throw in the towel? panel, Las Vegas, NV (March)

Presenter

Triple Helix Workshop – Embracing Societal Change, Almaden (Nov)

Beijing University – IBM University Programs, SSME and Skills (Oct)

Bankinter and Kauffman Foundation Roundtable - Future of Cities, Madrid, Spain (Sept)

NCET2 & UIDP Industry and Academic Research Conference, Menlo Park, CA (Aug)

Global Innovation Ecosystem Summit, SJSU San Jose, CA (July)

Frontiers in Service - Systems-Disciplines Framework for Scope of Service Science, Columbus, OH (Jul)

Frontiers in Service – Universities as Service Systems, Columbus, OH (Jul)

IBM Day at Tsinghua University - IBM Centennial and Smarter Planet, Beijing, China (May)

IBM Day at CITRIS - IBM Centennial and Smarter Planet, Berkeley, CA (May)

Cisco TV - Service Science Progress and Directions, Interview and webinar, Santa Clara, CA (Apr)

RIT Service Innovation Event - Regional Innovation Ecosystem and Service Science, Rochester, NY (Apr)

AACU Annual Meeting - Skills Up! Value Up! Session with Jay McCormack, San Francisco (Jan)

Executive Briefings

IKEA and Linneaus University (Sweden), NSF Leadership in Science and Technology (DC)

Projects

IBM Watson Jeopardy! Harvard-MIT, Stanford-Berkeley, CMU-UPitt executive sponsor

Professional Association Activities

SRII to ISSIP.org transition

Other Advisory Board Meetings, Briefings, Reviews, Visitors

Juror Brock International Prize in Education, Tulsa OK (Sept), UIDP, BHEF, NCET2 and other organizations linking industry-university for innovative research (research), next generation skills (readiness), and future talent (recruiting).

2010

2010 Message: Computer science is well known. Service science is emerging. Smarter Planet success depends on systems of systems.

Keynote/Plenary Presentations

ICSOC Service-Oriented Computing – SSME Keynote, San Francisco (Dec) AMA Marketing ServSIG - Smarter Planet and Service Science Keynote, Porto, Portugal (June) ICEE Service Science Implications for e-Biz and e-Gov Keynote, Guangzhou China (May)

IEEE Transforming Engineering Education – SSME Keynote, Dublin, Ireland (Apr)

Viable Systems Approach Conference - Service Science Foundation Keynote, U Rome, Italy (March)

IAMOT Management of Technology - SSME Keynote, Cairo, Egypt (March)

Panel Moderator

IEEE Transforming Engineering Education - T-shaped Professional Panel, Dublin, Ireland (Apr) SRII Summit, Education Panel, San Jose, CA (Jan)

Panelist

NCIIA IP Panel - IBM University Programs, San Francisco (March) SRII Summit, Education Panel - Service Science and T-shaped Professionals, San Jose, CA (Jan)

Presenter

Berkeley-CITRIS - Smarter Planet and Service Science Introduction, Berkeley, CA (Sept) Marin County Education – Smarter Systems and Service Science, Marin, CA (June) Naples Forum on Service – Three Frameworks for Research, Naples, Italy (June) Stanford Computer Science – Smarter Planet and Service Science Introduction, Palo Alto, CA (May) Next Generation Software Engineers and SSME – USA and Japan, Almaden (March) Cairo University - SSME and Future Curriculum, Cairo Egypt (March) FIU and U Miami - Service Science & Smarter Planet, Miami, FL (Feb) BYU Service Operations Course, Prof. Scott Sampson, Utah (Jan) Tanzanian Delegation/Dodoma Silicon Valley Initiative, Almaden (Jan)

Press

Fortune, Chronicle of Higher Education.

Executive Briefings

Intuit PEP Partnership Exec Briefings (Jan - Dec), IBM Workforce of Tomorrow briefing with IKEA, SpiritAero, State of Florida (Jan - Dec). Government and Non-Profit: NASA, IFTF, Denmark Ministry of Education, Australia CSIRO, SHARPC/NSF, Singularity University, France INRIA, Germany Fraunhofer, TSIA, India GKI, Taiwan Service Science Research Center (SSRC), Japan Nomura Research Institute; Companies: Cisco, SAP, Earthmine, John Deere, Monsanto, Agilent, Nissan, Intel, StoraEnso, MITRE, Citicorp, Xerox, Microsoft, Google; Universities: Australia RMIT, U Wollongong, Canada U Vancouver, UOttawa, China Beijing University of Technology, Finland Aalto, Germany Karlsruhe, India School of Business, IIT Bangalore, Ireland Trinity, U Dublin, Italy Japan U Tokyo, Kyushu U,U Tsukuba, Mexico Monterrey Tech, New Zealand U Canterbury, Norway BI, Spain U Catalonia, Switzerland HEIG, Tanzania U Dodoma, Taiwan National Chengchi University, Turkey KOC University, UK Imperial, US MIT, Stanford, Berkeley, RIT, U Oklahoma, U Chicago, UTEP, RPI, Purdue, OSU, Duke, NCSU, U Miami, FIU, UCF, Columbia, CMU, MSU, ASU, U Arizona, SJSU, U Penn, CSUEB, U Maryland, USC, U Michigan, Union College, Neumont, UCSC, SFU, Southern New Hampshire University (Jan – Dec).

IBM Smarter City Challenges Fresno Coach (Oct)

Professional Association Activities

SRII Meetings (Jan – Dec)

Other Advisory Board Meetings, Briefings, Reviews, Visitors

VTT Scientific Advisory Board (Jan – Dec), BHEF Skills for Future Advisory Board – STEM pipeline simulation meetings (Jan-Dec), NAE K-12 Engineering Education Standards Committee, Washington, DC (Nov), CITRIS UC Berkeley (Jan – Dec)

2009

2009 Message: Families and universities are two of the most important types of services systems. They both have a major impact on the next generation of talent. Service system design is impacted both by better technological building blocks, and more just and equitable public policy.

Keynote/Plenary Presentations

Service Design Conference – Service Science Keynote, Seoul, Korea (Nov)
Tokyo Tech, 21st Century COE 5th Symposium - Agent-Based Social Systems Sciences Keynote, Tokyo (Feb)

Panelist

Frontiers in Service – Education at the Edge of Chaos, Honolulu, HI (Oct)

Presenter

Frontiers in Service – Establishing an Industrial Service Research Group, Honolulu, HI (Oct) Naples Forum on Service – Three Frameworks for Research, Naples, Italy (June) U Porto Introduction to Service Science, Porto, Portugal (May)

Projects

IBM Research awards for Almaden Service Research projects achieving ten times return on investment with four IBM outstanding and eleven accomplishment awards over seven years. Projects included SSME (Service Science Management and Engineering), Component Business Model (CBM), Solution Design Manager (SDM)/Financial Solutions Manager(FSM), Intelligent Document Gateway (IDG), BIW (Business Insight Workbench), COBRA (Corporate Brand Analytics), SIMPLE (Intellectual Property Analytics), Impact of Future Technologies (IoFT), Web Fountain (pioneered UIMA for Watson Jeopardy!), Call Center Management Dashboard and Analytics, and New Service Design Rehearsal Studio.

Professional Association Activities

SRII meeting (Jan – Dec)

Other Advisory Board Meetings, Briefings, Reviews, Visitors

VTT Scientific Advisory Board (Jan – Dec), Stanford Humanities Advisory Board (Jan – Dec).

2008

2008 Message: In manufacturing, cost reduction has come from reduces variance. However, value often comes from mass customization, embracing the unique variance of each customer's demand, and isn't that a service? The growth of the service sector in developed countries over the 20th century, as well as in businesses such as IBM over the last few decades, indicates a need for service science to make innovation more systematic. Our customers know what computer science is, but they are confused by service science — what is that? Therefore, let's call the initiative Smarter Planet. Service science for academics, and Smarter Planet for customers and the media. Smarter Planet, and Sam Palmisano have the same initials.

Keynote/Plenary Presentations

UK Royal Automobile Club, Service Conference - SSME keynote, London (Sept)
IFIP TC8 WG8.2 Information Technology in the Service Economy Keynote, Toronto, Canada (Aug)
FITA Info Tech – Service Science keynote, ASU, Tuscon, AZ (March)

Panel Moderator

Frontiers in Service, Big Data and Service Innovation, Washington DC (Oct)

Panelist

eBay Research Day – IBM Research, San Jose, CA (Sept)

US Congress Council of Competitiveness: Thrive panel – future skills, Washington, DC (Apr)

Media Consulta Event GmbH panel future skills - Smarter Planet and Service Science, webinar (Apr)

Presenter

UVA Mike Gorman, host (Dec)

TSIA-AFSMI Service Management and Innovation conference – SSME Talk, Las Vegas, NV (Oct)

Berkeley CITRIS Service Lab Workshop Jean Paul Jacob, host (Sept)

CMU Service Science course lectures for CMU, Prof. Anatole Gershman, webinar (Sept)

SPJIMR Service Science Talk, Mumbai, India (June)

Helsinki School of Economics Commencement Speech – Industry Perspective – Helsinki, Finland (May)

Aalto U Service Factory Workshop – Smarter Planet & Service Science – Helsinki, Finland (May)

Sweden SSME Workshop - Smarter Planet, SSME, and T-shaped Professional - Stockholm, Sweden (May)

Service Innovation Design Conference - Service Science talk, San Diego, CA (March)

Press

Investor's Business Daily (July), Sweden Metro Teknik (June), UK Financial Time Interview (June), Wirtschaftsinformatik (January, pp. 66-68)

Executive Briefings

Deutsche Bank, IBM Almaden (Nov), Intuit, IBM Silicon Valley Lab (Nov)

Projects

Director, Almaden Service Research - see detailed month by month, day by day activities below.

Professional Association Activities

SRII Meetings (Jan – Dec)

Other Advisory Board Meetings, Briefings, Reviews, Visitors

VTT Scientific Advisory Board (Jan – Dec), National Academy of Engineering (K12 Engineering Education Standards) (June), NSF Panel Reviewing Proposals for Course, Curriculum, and Laboratory Improvement (CCLI) (July), Stanford Humanities Advisory Board (Jan – Dec). Institute For The Future (IFTF) Advisory Board (Jan – Dec).

The above is a sampling of the most significant of these events below:

January

2 Professional Service: Planning Almaden Institute (Eric Gabrielson, Norm Pass, etc.)

11 Professional Service: Next Generation Innovation Ecosystem Platform Summit Kaufmann Foundation & BASIC

17 Professional Service: SJEF's Open Source Advisory Board, IBM Community Service

31 Professional Service: Course at IBM, 2008 Service Eng Course for MS Software Eng for IBM Cohort

February

25-27 Professional Service: UCSC Information Systems Mgmt Academic Program

March

1 SSME Keynote: FITA 2008 Keynote (Tuscon, AZ)

14 Professional Service: Finland VTT Scientific Advisory Council

- 18 Host Academic Talk: Mark Haselkorn visit Humanitarian Service Science (CCLI proposal prep)
- 27 IBM Talk: SSME and BGI with Peter Williams
- 31 SSME Talk: Service Innovation Design Conference in San Diego, Invited Speaker

April

- 2 SSME Talk: Panel (Media Consulta Event GmbH -- Myriam Fleck), webinar
- 3 Professional Service: Stanford Humanities Center Advisory Board (John Bender)
- 23 Customer briefing: British Telecom (Richard Lyons)
- 25 SSME Talk: Panel US Council of Competitiveness: Thrive document and briefing
- 29 IBM Talk: GTO WorldSimulator discussion

May

- 1 Host Academic Talk: Walter Ganz visit, Fraunhofer, Germany
- 6 Host Academic Talk: Ramayya Krishnan, Prof. Information Systems, CMU
- 6 Host Academic Talk: Steve Kwan, SJSU, SSME Lecture Series
- 9 Host Academic Talk: Duncan McFarlane, Professor of Service and Support Engineering, Cambridge University
- 9 Customer briefing: Venture law advisor Martin Haeberli
- 12 Professional Service: Feedback on Netherlands Service Innovation Roadmap (Dr.ir. René van Buuren)
- 14 Host Academic Talk: Ari P.J. Vepsalainen, Helsinki School of Economics
- 15 Professional Service: TWIN Awards dinner with Jeanette Blomberg
- 25-26 SSME Talks: Sweden Nordic SSME Workshop & Stockholm School of Economics (Orjan Granqvist)
- 27-28 SSME Talks: Helsinki University of Technology, Aalto University, Service Factory Workshop
- 29 Helsinki School of Economics Commencement Talk (Jyrki Koskinen)

June

- 3 Professional Service: National Academy of Engineering (K12 Engineering Education Standards) (Greg Pearson)
- 3 Host Academic Talk: Lou Freund, SJSU, SSME Lecture Series
- 5 Host Academic Talk: Facundo Martin Alonso, Stanford University
- 11 Host Academic Talk: Minni Sarkka Talk, Helsinki University of Technology
- 11 Interview: Sweden Metro Teknik. Carina Ginstmark
- 11 Interview: David Turner, UK Financial Time Interview
- 11 IBM Talk: Almaden Panel Series Acquisitions Analyzed (Moidin M.)
- 12 IBM Talk: Summer Tech Series Seminar, Topic: The History and Future of Service Systems
- 13 Host Academic Talk: Dr. Arun Sharma, Deputy Vice-Chancellor (Research), Queensland (QUT) in Brisbane
- 23 Professional Service: Alok Rishi and Kevin Ellis, Director, Services Innovation Office, Sun Microsystems
- 25 SSME Talk: SPJIMR launch PG Diploma, Dr. Sunil Rai, Jt. Director in Mumbai, Dr. Shrikant Parikh (ex-IBMer)
- 25 Customer briefing: SAP Teleconference
- 25 Host IBM Exec visit: Gerry Mooney, S&D Government and Education
- 26 Professional Service: AoT Report Review: SSME input
- 27 Customer briefing: Doosan Group, S. Korea, GIE and SSME presentations

July

- 8 Academic Visit: Donald Boyd, VP of Research and Innovation Programs for RIT and Michael Dwyer.
- 10-11 Professional Service: NSF Grant Reviews: CCLI Review (Russ Pimmel)
- 14 Customer Meeting: Intuit
- 15 Interview: J. Bonasia at Investor's Business Daily
- 16 Customer Briefing: Dr. Birgit Buschmann, Director, Ministry of Economics of Baden-Wuerttemberg, Germany
- 21 Host Academic Talk: Tokyo Ins. of Tech, Kyoichi Jim Kijima, Decision Sciences
- 22 ASR Team Meeting: Summer Picnic
- 23 Host IBM Exec visit: Rohit Tandon Executive Vice President, Strategy and Shared Services, IBM Daksh
- 24 Customer briefing: ITRI (Industrial Technology Research Institute of Taiwan). The director of institute, Mr. Tu
- 25 Customer briefing: Intuit Cloud Computing at SVL
- 31 Host IBM Exec Visit: Steve McMillan at Hawthorne for GTS BTE Research meeting

August

- 4 Host Academic Talk: Rudi Studer Institue AIFB, Karlsruhe Service Research Institute (KSRI), Germany
- 11 SSME Keynote: IFIP Conference Toronto (Michael Barrett, Cambridge)
- 11 Professional Service: Canadian Service Innovation Roadmap report discussion (Chris Paterson)
- 14 Customer visit: InsightsOnDemand
- 15 Customer visit: Intuit (Mike Graves)
- 18 Professional Service: Singapore SSME Development (Sew Bun Foong)
- 19 Host IBM Exec visit: Gerry Mooney, MegaFOAK Workshop (Laura Anderson, Norm Pass)

- 19 Customer briefing: SAP (Paul Hofmann)
- 26 Professional Service: VTT Scientific Advisory Meeting call

September

- 3 Customer talk: Qwest IBM Service Science, Michael A. O'Connell, IBM Client Director, Qwest
- 8 Customer talk: Ben Lowe, Enabling Computing Technologies (ECT) Regional leader for Bell Labs Ireland, UK

Yuliy Baryshnikov, leader of Industrial Mathematics and Operations Research

François Pitti from the Strategic Alliance organization.

(IBM) Michael J Hefron, IBM S&D, Industrial Sector, Client Group Director: Lucent & Siemens

- 9 Professional Service: Local Welcome Host, DOD Innovation Forum (Chris Hanson, Bill Daul)
- 11 Professional Service: NAE K-12 Engineering Standards (Maribeth Keitz National Academy of Engineering)
- 11 Customer Meeting: Enthiosys Customer Appreciation Day (Luke H.)
- 17 SSME Talk: 2nd Innovation in Services Conference, The Service of Health Care Berkeley CITRIS (Ravi Nemana)
- 19 Professional Service: eBay Research Day

panelists: Ashok Chandra, Microsoft; Peter Norvig, Google; Jim Spohrer, IBM Research; Mark Bernstein, PARC 30 Host Academic Visit: Andrew Isaacs, Berkeley; Mr. Naohiro Ichiba, DNP and Sarah Brown, Berkeley.

October

1-5 SSME Plenary Discussant: Frontiers in Service Conference, PIC Conference, On Program Committee

6 Customer Call: Anil Srivastava, CKO, Capital Technology Information Services, Inc.,

Anupam Saronwala - IBM India Research & Kiran Karnik, IIT, India

6 Host Academic Talk: Guangjie Ren, University of Cambridge, UK

9 Host Academic Talk: Dr Hossein S. Zadeh, Program Director - Master of Business Services Science

School of Business IT RMIT University

10 Professional Service: Meet with and review new book on Technology for Brian Arthur, Santa Fe Institute

- 13 Host Academic Talk: Prof. Dr. Alexander Gerybadze, Management and Innovation, U Hohenheim, Germany
- 21 SSME Talk: AFSMI conference in Las Vegas, Nevada (JB Wood)
- 23 Guest Lecture SSME Course: Rajiv Kapur, SJSU
- 30 Professional Service: Meeting w/Steven Rubin, Advisory Board, Member Orchesys, Inc.
- 30 Interview: SY Partners for Smart Planet Initiative (Sara D.G.)

November

- 6 SSME Keynote: 22nd Service Conference and Workshop, Royal Automobile Club, Pall Mall. (Katherine Tyler)
- 10 Customer Briefing: Deutsche Bank, Germany
- 11 Professional Service: Advisory Board, SRI NSF Grant for Life Long Learning (Britte Haugan Cheng, SRI)
- 12 Professional Service: Exploration Summer Program, Explo's Curriculum Advisory Committee (Barb Trainor)
- 12 Professional Service: Stanford Humanity Advisory Committee (Aron Rodrigue)
- 13 Customer Meeting: Ralph Hodgson, CTO and Executive Partner, TopQuadrant, Inc.,

Via tele: Irene Polikoff and Robert Coyne

- 14 Customer Briefing: Intuit at SVL (Storage)
- 17 Customer Briefing: Intuit Scott Beth, Craig Cuffie, Carla Zorn, Director of Finance Transformation Office -- Intuit

Via tele IBM: Blanche Waddell, John Ricketts, Bruce Greiner

- 19 Professional Service: Advisory Board, SRII Award Steering Committee Conference Call
- 21 SSME Talk: SSME Discussion with State of Maine (Terry Hansen)
- 23 SSME Paper: First Editorial to on-line << Service Science>> Journal
- 24 Professional Service: SRII Advisory Board Meeting (Tom Pridham)

December

- 3 ASR Team Meeting: End of year project review and 2009 planning
- 6-10 SSME Talk: Otago Forum New Zealand, Host David Ballantyne, Dunedin, NZ
- 12 SSME Panel: First Karlsruhe Service Summit at Karlsruhe Palace, Karlsruhe Germany (Prof. Steve Kwan)
- 13 SSME Keynote: WeB 2008 Paris France (Prof. Steve Kwan)

2007 POMS Service Operations – SSME Keynote, Columbia University, NYC (July), IIE Industrial Engineering, Industry Section – SSME Keynote, Nashville, TN (May), National Academy of Engineering, Enhancing Masters Natural Sciences, Keck Center, Washington, DC (March)

2006 Plenary Frontiers in Service (July Brisbane, Australia), SSME UCBerkeley iSchool (Dec), Ireland Development Agency (Dec. Dublin), UCSantaCruz Knowledge Servcies (Nov Moffat Field), PARC Forum (Nov. Palo Alto, CA),

SIGSoft (Nov. Portland, Oregon), UVermont (Oct Burlington, VT), Watson Research Center Colloquium (Oct Yorktown, NY), CITRIS-IBM-METI (Oct Moffat Field), Japan Science and Technology RISTEX Service Science Symposium Keynote, Tokyo (Oct), Keynotes 5th German Service Engineering Conference (April Berlin), 1st German Service Science Conference (April Ingolstadt), US National Academy of Sciences (April Washington, DC), World Talk Radio Science and Society (Feb), UCLA Marschak Colloquium (Feb LA, CA).

2006 VTT Advisory Board (Helsinki, Finland), Stanford Humanity Center (Palo Alto, CA)

2005 SSME Workshop Oxford University (May Oxford, England), China (Sept Peking University Beijing), Japan (Sept IBM HQ Tokyo). OntologWiki Forum (Dec). ISSS Keynote (July Cancun, Mexico).

2004 Interviewed by Michael Kanellos, News.com Senior Editor, "IBM's Services Science" April 28, 2004 "Humans are intentional agents, and intentional agents can resist or accelerate change," Spohrer said. Interviewed by Shumway. May 21, 2004, Station KDKA-AM. Location Pittsburgh, Program KDKA Morning News. Half Life of Jobs. Inteviewed by Joan Buzaleno: June 1, 2004. Evolution of Work. Collaboration Summit. Expert Presentation. First Conference of the POMS College of Service Operations (Dec Columbia University NY, NY)

2003 Board Member Emeritus, New Media Centers (nmc.org)

2002 Advisory Board of James Burkes' KnowledgeWeb Project.

2001 Interviewed by Howard Rheingold for his book Smart Mobs: The Next Social Revolution.

2000 Interviewed by Gary Taubes for IBM Think Research Cover Story Transparent Computing.

1998. VSWIM Plenary (San Diego), Educom NLII Plenary (New Orleans), 4C@Workshop Keynote (Cupertino, CA), CSU Hayward Multimedia Colloquium (Hayward, CA), ITCE Plenary (Sante Fe, NM), TYC21 Keynote (Solano, CA), CATS 98 Keynote (Sonoma, CA), UCLA Technology & Learning Colloquium (LA), Ed Tech 98 (Santa Clara, CA)

1998 EOE, Microsoft's Higher Education Vision Interview (May 1st, 1998), Cisco WW Training (San Jose), CILT Tools for Learning Communities (Menlo Park, CA), Bootstrap Alliance (Menlo Park, CA), Colby College (Cupertino, CA). Weekly visitors to Apple and Apple's Corporate Briefing Center.

1998 Advisor Reactivity, Inc.

1997 GTech (Atlanta), California Community Colleges Conference (San Jose), NPUC (Almaden, CA), CAETI (Fairfax, VA), ISI (LA), International Cooperative Alliance (Geneva), Cornell University (NY), NASA Ames HCI Colloquium (Mountain View, CA), Jim Johnson (San Diego)

1997 Interface Forum, ARL Panorama, NSF Colloquium (D.C.), Educom (Minneapolis, MN), Danish Delegation (Cupertino, CA), Brazil Delegation (Cupertino, CA), Norway Delegation (Cupertino, CA)

1997 Advisor California State University Hayward Multimedia Advisory Board., Institute for the Future Outlook Advisory Group, Educom's IMS Project Technical Advisory Group, @Learning Corporation

1997 WorldBoard, San Jose Mercury News (front page June 28th, 1997), Organized Advisory Workshops: DOD Advanced Distributed Learning Initiative, IEEE P1484 Learning Architectures Study Group, NIST Metadata Project, World Bank and UNDP Learning Technology for Developing Nations., Apple's Open Source Community Organizer and Lead

1996 CSCL Conference (Bloomington, IN), AERA (San Francisco), NIST ATP Workshop (Washington, DC), CAETI Workshop (Washington, DC), State of Georgia Governor's Office (Atlanta).

1996-1993. Co-organizer and presenter E/W NSF Workshop (Boston), E/W NSF Workshop (Boulder, CO). Co-organizer of Empirical Studies of Programmers conference (Palo Alto, CA). Numerous presentations to major corporations: Time Warner, HBO, PacTel, Motorola, MITRE, Boeing, etc. (Cupertino, CA). Presentations to major universities (MIT, CMU, Georgia Tech, University of Illinois, etc.). Apple's World Wide Developer Conference (San Jose, CA).

1996 Advisor DARPA CAETI Advisory Meetings, White House Office of Science and Technology Advisory Meetings, Vice President Al Gore's Redevelopment Initiative, NSF Grant Review Meetings, NIST/White House Meeting, Marlborough College, VT Multimedia Advisory Board, Journal of the Learning Sciences Editorial Board, Interactive Learning Environments Editorial Board

1995 White House Conference on Learning & Technology (Washington, DC). Utah State University Learning Conference (Utah). ARPA SISTO Workshop (Washington, DC), American Education Research Association (San Francisco). Child's Play Workshop on End-User Programming (Boulder, CO).

1994 NIST ATP Learning and Technology Presentation (Washington, DC). American Education Research Association (New Orleans). IEEE Systems, Man, and Cybernetics Conference (Houston, TX).

1993 Co-chair 5th Empirical Studies of Programmers Conference, Palo Alto, CA (Dec). State of California Directors of Education, Keynote Speaker (Santa Rose, CA). Interact '93 Multimedia and Training Conference (Anaheim, CA). IJCAI-93 (Chambery, France).

1992 NSF Learning Technology Forum (Washington, DC). CHI demonstration (Monterey, CA).

1992 CHI co-organizer of workshop on End-User Programming. Biannual Advances in Learning Technology Workshop.

1991 Cognitive Science Conference (Chicago, IL) panel on Simulation and Education. IEEE Systems, Man, and Cybernetics conference (Charlottesville, VA) presentation. Empirical Studies of Programmers (New Brunswick, NJ) panel on Environments for Learning to Program. World Congress on Expert Systems (Orlando, FL) panel on Expert Systems and Interactive Multimedia.

1991 Corporate briefings to Allied-Signal Aerospace Company, Andersen Consulting (video-conference), Anhauser-Bush, Australian Department of Industry, Boeing, Raytheon, United Airlines, University of Southern California.

1990 AAAI Spring Symposium (Palo Alto, CA)

1990 Cognitive Science (Cambridge MA), Apple AAAI Presentation (Cambridge MA). Corporate briefings to Apple's Executive Management Team, Boeing, Toshiba Corporation (in Tokyo).

1989 Visiting Scholar University of Rome La Sapienza. Guest lectures/visiting scholar at the University of Joensuu, Finland and CATTID University of Rome, Italy.

1989 Presentations at Educational Testing Services, IBM, Andersen Consulting.

1987 ISTAR III, Information Science and Technology Assessment for Research, Sponsored by the Department of the Army. (Leesburg, VA.). Education Testing Service (Princeton, NJ). Western Massachusetts Chapter of ACM (Chicopee, MA).

1987 American Education Research Association, Speaker (Washington, DC). IMA Education Workshop (Washington, DC).

1986 Empirical Studies of Programmers (June 5-6, Washington, DC). American Education Research Association (April 20, San Francisco, CA). CHI '86 ACM/SIGCHI Human Factors in Computing (April 13-17, Boston, MA). NCTM '86 -64th Annual Meeting National Council of Teachers of Mathematics (April 2-5, Washington, DC).

1985 SMC'85 IEEE International Conference on Systems, Man, and Cybernetics. Invited Speaker. (November 12-15, Tuscon, AZ). SPIE'85 International Conference on Intelligent Robots and Computer Vision and Space Station Automation (Sept 15-20, Cambridge, MA). WCCE '85 IFIP/AFIPS 4th World Conference on Computers in Education (July 29-August 2, Norfolk, VA). CHI '85 ACM/SIGCHI Human Factors in Computing Systems (April 14-18, San Francisco, CA).

1983-80 Speech recognitions presentations: ICASSP 83 IEEE International Conference on Acoustics, Speech and Signal Processing (Boston, MA). ICASSP 82 (Paris, France). ASA 80 Acoustic Society of America (Atlanta, GA).

1982-1983 Yale Masters and MPhil, later PhD (1989)

1978-1982 Verbex, acquired by Exxon enterprises, formerly Dialog Systems Inc., Founder and CEO Steve Mosher. Developed machine learning and speech recognition software with Peter F. Brown, Bob Roth as well as Jim and Janet Baker.

1974-1978 MIT

1956-1974 Jim grew up in the State of Maine. Life began on a 40-acre farm (zip code 04444 for Newburgh rural, Hampden urban) with party line telephone as the advanced technology. The family farm raised apples as well as animals – near trout streams and blueberry patches – but no computers, smart phones, or game consoles. Enjoyment of the outdoors helped propel him to spend time in nature, and become an Eagle Scout, Jr. Assistant Scout Master, and summer camp counselor, including a whitewater canoeing instructor at by the age of 18. He was valedictorian of his high school class of 1974 from Hampden Academy, where a few years earlier he was lucky to have Stephen King as an English teacher for the course Fantasy & Science Fiction. He was also lucky to write his first program in 1972 on punch cards, and one week later he got the print out with his first bug report after the cards were mailed to and processed on an IBM mainframe at the University of Maine, Orono. In 1943, IBM established its punch card division in California, near where he now lives in Silicon Valley with his wife and two adult sons.