Service Science
MGMT 150 / COGS 152
University of California Merced
Fall 2009

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Lecture Monday, 4:30 – 7:15 PM
Kollig 209

Office hrs By appointment

UCMCROPS F09-MGMT/COGS 150/152 LEC

URL http://faculty.ucmerced.edu/pmaglio/mgmt150.html

Grades

Six short papers	10 points each
Four quizzes	5 points each
Final paper	20 points

Assignments

Sept 14	Two-page paper due: Describe a specific *service* you use, explaining how it relates to Teboul's or another (from the reading list) definition of service.
Sept 28	Two-page paper due: Describe the role you play as *customer* of a service business you use often. What do you have to know? What kind of work do you do?
Oct 12	Two-page paper due: Pick two different types of service organizations in different industries that you frequent often, for example, Bank America (banking) and TGI Friday's (eating out)---but don't pick these examples! For each type of service, identify the various factors that you think affect your overall satisfaction with the *quality* that service provides you.
Oct 26	Two-page paper due: Propose a possible topic of your final paper. Your final paper must *pose a question about service or a question for service science* more broadly, and then provide a thoughtful, well-reasoned

	discussion of the issues related to it. This two-page proposal should briefly describe the question your final paper will address.
Nov 9	Two-page paper due: Describe how *technology* has changed your interaction with three services in the last several years. Are you more or less satisfied with the new service models? Why?
Nov 23	Two-page paper due: How many *service systems* do you participate in during a single day? List as many as you can, describe the role you play, and who or what else plays a substantial role.
Dec 7	Final paper due: Maximum length, 5 pages (plus references).

Ground Rules and Other Useful Information

Being in Class
When you're in class, be in class. If you have a laptop, use it to take notes or look things up that are related to the class or to the discussion, but please don't use it for any non-class activities. It's simple: Pay attention, ask questions, participate.

Papers
All papers must be double-spaced with one-inch margins on all sides, and formatted in a legible font (such as Times Roman) with font-size 12. All papers must be clearly written (see Strunk and White's classic, *Elements of Style*), and must be proofread so they contain minimal typos and disfluenciues.

Short Papers: Maximum length, two pages
Each of six short, two-page papers is worth 10 points. Details are above.

Quizzes
Pop quizzes will be given during four different class periods. Each will consist of several multiple-choice and short-answer questions based on required readings and class lectures. Each will also contain extra credit questions based on optional readings.

Final Paper: Maximum length, 5-pages
The final paper must (1) pose a question about service or a question for service science more broadly, and (2) provide a thoughtful, well-reasoned discussion of the issues related to it. All papers must include references to at least five published articles, chapters, or books that are **not** on the required reading list. You can use web sources such as wikipedia, but not more than two web sources. References must be formatted in a standard style, either following *The Chicago Manual of Style*, the *Publication Manual of the American Psychological Association*, or some other standard.

Turning in Work; Late or Missing Work
Papers must be turned in through UCMCROPS by midnight the day they are due. If you have a problem with this, contact me. Papers can be turned in up to a week late; points will be deducted for late work. If you have a problem with this, contact me. Quizzes will be given in class. There will be no make up quizzes. If you have a problem with this, contact me.

Cheating and Academic Honesty
Don't cheat. Like all universities, UC Merced has a formal policy on this: http://studentlife.ucmerced.edu/2.asp?uc=1&lvl2=121&lvl3=121&lvl4=123&contentid=171.

Disability Services
UC Merced is committed to ensuring equal academic opportunities and inclusion for students with disabilities (see http://disability.ucmerced.edu/). If you need any assistance, please let me know.

Office Hours and Contact
I have no scheduled office hours. But I expect to be on campus most Mondays, so if you'd like talk, contact me to set up a time, preferably by email to *pmaglio@ucmerced.edu*. And please feel free to contact me with any type of issue or question you have about the class. If you send email, please put MGMT 150 or COGS 152 in the subject line or else I may miss it.

What will you learn in this course?

The US economy – and economies of all industrialized nations – are made primarily of service jobs (about 80% of jobs in the US are service jobs), and the gross domestic product comes primarily from service (more than 70% in the US). So chances are that when you get out of school, you are going to be working in a service job or in the service sector.

In this course, you will learn about service. You will learn what service is, why it is different from other sectors and other jobs, and why it is important. You will learn about problems in service, such as measuring performance, increasing quality, and creating innovations. You will learn how some have recently begun to study service from a variety of different perspectives – including social sciences, cognitive science, management, engineering, and others – to address these problems. This new approach is called *service science*. You will learn how this kind of interdisciplinary research might be effective in studying and understanding service. In the end, you will be able to have an informed and intelligent conversation about the nature of service, how to think about measurement in service, and how to increase innovation in service. And you will be (at least a little more) ready for the workforce you are about to enter.

So what is service science, anyway?

Service science is the study of service, which can be broadly defined as actions that one takes on behalf of another (such as washing a car or managing web servers). But there really is no such thing as service science today – there is no single accepted, integrated, interdisciplinary scientific study of the service economy or of service jobs. Service science is more like a movement whose goal is to focus attention on service-related problems. Service science is emerging. Its basic unit of analysis is the *service system*, a configuration of people, technologies, and other resources that interact with other service systems to create mutual value. Many systems can be viewed as service systems, including families, cities, and companies, among many others. Just as computer scientists work with formal models of algorithms and computation, someday service scientists will work with formal models of service systems.

More precisely, *service* is the application of resources (including competences, skills, and knowledge) to make changes that have value for another entity. For instance, in information technology (IT) outsourcing services, a service provider operates computing infrastructure for a service client. The provider augments the client's capabilities, taking on responsibility for monthly service-level agreements and year-over-year productivity improvements. The formal representation and modeling of service systems is nascent, largely because of the complexity of modeling people, their knowledge, activities, and intentions. Service system complexity is a function of the number and variety of people, technologies, and organizations linked in value-creation networks, such as professional reputation systems of a single kind of knowledge worker or profession, work systems composed of multiple types of knowledge workers, enterprise systems, industrial systems, national systems, and even the global service system. Knowledge workers depend on their knowledge, tools, and social-organizational networks to solve problems, be productive, continually develop, and generate and capture value. Service science must combine formal models with models of human behavior to understand service systems.

Readings

Book (Available at the UC Merced Bookstore)

Teboul, J. (2006). *Service is front stage: Positioning services for value advantage*. Insead Business Press/Palgrave Macmillan.

Articles and Chapters (Available through UCMCROPS)

Bitner, M. J., Ostrom, A. & Morgan, F. (2008). Service blueprinting: A practical technique for service innovation. *California Management Review, 50,* 66 – 94.

Bitner, M. J., Ostrom, A. L., & Meuter, M. L. (2002). Implementing successful self-service technologies. *Academy of Marketing Executive, 16,* 96 – 109.

Bitner, M.J., Zeithamel, V. A., & Gremler D. D. (in press). Technology's impact on the gaps model of service quality. In P. P. Maglio, C. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.

Bryson, J. R. & Daniels, P. W. (in press). Service worlds: The 'services duality' and the rise of the 'manuservice' economy. In P. P. Maglio, C. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.

Chase, R. B. (1978). Where does the customer fit in a service operation? *Harvard Business Review, 56,* 137 – 142.

Chase, R. B. (in press). Revisiting "Where does the customer fit in a service operation?" Background and future development of contact theory. In P. P. Maglio, C. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.

Chesbrough, H. & Spohrer, J. (2006). A research manifesto for services science. *Communications of the ACM, 49,* 35 – 40.

Clark, H. H. & Brennan, S. E. (1991). Grounding in communication. In L. B. Resnick, J. M. Levine & S. D. Teasley (Eds.), *Perspectives on Socially Shared Cognition.* APA Press.

Fisk, R. P. & Grove, S. (in press). The evolution and future of service: Building and broadening a multidisciplinary field. In P. P. Maglio, C. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.

Frei, F. X. (2008). The four things a service business must get right. *Harvard Business Review* (April): 70-80.

Glushko, R. J. & Tabas, L. (2009). Designing service systems by bridging the ''front stage''and ''back stage'', *Information Systems and eBusiness Management*, 7, 407-427.

Glushko, R. J. (in press). Seven contexts for service system design. In P. P. Maglio, C. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.

Gummesson, E. (in press). The future of service is long overdue. In P. P. Maglio, C. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.

Hagel, J. & Singer, M. (2000). Unbundling the corporation. *The McKinsey Quarterly, 2000/3*, 148 – 161.

Heskett, J. L., Jones, T. O., Loveman, G. O., Sasser, W. E., Schlesinger, L. A. (1994). Putting the service profit chain to work. *Harvard Business Review, 72,* 164 – 174.

Heskett, J. L. & Sasser, W. E. (in press). The service profit chain: From satisfaction to ownership. In P. P. Maglio, C. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.

Hutchins, E. (1995). How a cockpit remembers its speeds. *Cognitive Science, 19*, 265 – 288.

Maglio, P. P., Srinivasan, S., Kreulen, J. T., Spohrer, J. (2006). Service systems, service scientists, SSME, and innovation. *Communications of the ACM, 49*, 81–85.

Maglio, P. P., Kandogan, E., & Haber, E. (2008). Distributed cognition and joint activity in computer-system administration. In M. S. Ackerman, C. Halverson, T. Erickson, & W. A. Kellogg (Eds.), *Resources, co-evolution, and artifacts: Theory in CSCW*. New York: Springer.

Maglio, P. P. & Spohrer, J. (2008). Fundamentals of service science. *Journal of the Academy of Marketing Science*, 36, 18-20.

Maglio, P. P., Vargo, S. L., Caswell, N. & Spohrer, J. (2009). The service system is the basic abstraction of service science. *Information Systems and e-business Management,* 7, 395-406.

Miles, I. (in press). Service innovation. In P. P. Maglio, C. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.

Moon, Y. & Frei, F. X. (2000). Exploding the self-service myth, *Harvard Business Review*, 78, 26-7.

Sampson, S. E. (in press). The unified service theory: A paradigm for service science. In P. P. Maglio, C. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.

Schneider & Bowen (in press). Winning the service game: Revisiting the rules by which people co-create value. In P. P. Maglio, C. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.

Spohrer, J. & Maglio, P. P. (in press). Service science: Toward a smarter planet. To appear in W. Karwowski & G. Salvendy (Eds.), *Introduction to service engineering*. New York: Wiley & Sons.

Spohrer, J. & Maglio, P. P. (2008). The emergence of service science: Toward systematic service innovations to accelerate co-creation of value. *Production and Operations Management, 17*, 1-9.

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

Vargo, S. L. & Lusch, R. F. (2004). Evolving to a new dominant logic for marketing. *Journal of Marketing, 68*, 1 – 17.

Vargo, S. L., Lusch, R. F. & Akaka, M. A. (in press). Advancing service science with service-dominant logic: Clarifications and conceptual development. In P. P. Maglio, C. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.

Zysman, J. (2006). The algorithmic revolution – the fourth service transformation. *Communications of the ACM, 49*, 48.

Optional Readings (Available through UCMCROPS)

Alter, S. (2008). Service system fundamentals: Work system, value chain, and life cycle. *IBM Systems Journal, 47*, 71 – 85.

Blomberg, J. (2008). Negotiating meaning of shared information in service system encounters. *European Management Journal, 26*, 213 – 222.

Chase, R. B. & Dasu, S. (2001). Want to perfect your company's service? User behavioral science. *Harvard Business Review*, (June), 79 – 84.

Chesbrough, H. & Davies, A. (in press). Advancing services innovation: Five key concepts. In P. P. Maglio, C. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.

Frei, F. X. (2006). Breaking the trade-off between efficiency and service. *Harvard Business Review, 84*, 93 – 101.

Gadrey, J. (2002). The misuse of productivity concepts in services: Lessons from a comparison between France and the United States. In J. Gadrey & F. Gallouj (Eds). *Productivity, Innovation, and Knowledge in Services: New Economic and Socio-economic Approaches.* Cheltenham UK: Edward Elgar, pp. 26 – 53.

Herzenberg, S., Alic, J. & Wial, H. (1999). A new deal for a new economy. *Challenge, 42*, 102 – 129.

Hill, P. (1977). On goods and services. *Review of Income and Wealth, 23*, 315 – 338.

Hill, P. (1999). Tangibles, intangibles and services: A new taxonomy for the classification of output. *Canadian Journal of Economics, 32*, 426 – 446.

IfM & IBM (2008). *Succeeding through service innovation: A service perspective for education, research, business and government*. Cambridge, UK: University of Cambridge Institute for Manufacturing. ISBN: 978-1-902546-65-0

Johnson, B. C., Manyika, J. M., & Yee, L. A. (2005). The next revolution in interactions. *The McKinsey Quarterly, 2005/4*, 20 – 33.

Karmarkar, U. (2004). Will you survive the services revolution? *Harvard Business Review, 82,* 100 – 107.

Karmarkar, U. (in press). The industrialization of information intensive services. In P. P. Maglio, C. Kieliszewski, & J. C. Spohrer (Eds.), *Handbook of service science*. New York: Springer.

Klein, G., Feltovich, P. J., Bradshaw, J. M., & Woods, D. D. (2005). Common ground and coordination in joint activity. In W.R. Rouse and K.B. Boff, (Eds.), *Organizational Simulation*. John Wiley & Sons.

Lovelock, C. (1983). Classifying services to gain strategic market insights. *Journal of Marketing, 43,* 10 – 20.

Lovelock, C. & Gummesson, E. (2004). Whither services marketing? In search of a new paradigm and fresh perspectives. *Journal of Service Research, 7,* 20 – 41.

Miles, I. (2008). Patterns of innovation in service industries. *IBM Systems Journal, 47,* 115 – 128.

Mills, P. K. & Moberg, D. J. (1982). Perspectives on the technology of service operations. *Academy of Management Review, 7*, 467 – 478.

Normann, R. & Ramirez, R. (1993). From value chain to value constellation: Designing interactive strategy. *Harvard Business Review, 71*, 65 – 77.

Palmisano, S. J. (2006). The globally integrated enterprise. *Foreign Affairs, 85,* 127 – 136.

Prahalad, C. K. & Ramaswamy, V. (2000). Co-opting consumer competence, *Harvard Business Review,* 78, 79-93.

Quinn, J. B., Doorley, T. L., & Paquette, P. C. (1990). Beyond products: Services-based strategy. *Harvard Business Review, 68,* 58 – 67.

Sampson, S. & Froehle, C. M. (2006). Foundations and implications of a proposed unified services theory. *Production and Operations Management, 15,* 329 – 343.

Schultze, U. & Bhappu, A. D. (2005). Incorporating self-serve technology into co-production design. *International Journal of E-Collaboration, 1*, 1 – 23.

Shapiro, B. P., Rangan, V. K., & Sviokla, J. J. (1992). Staple yourself to an order. *Harvard Business Review, 70,* 162 - 171.

Stewart, D. M. & Chase, R. B. (1999). The impact oif human error on delivering service quality. *Production and Operations Management,* 8, 240 – 263.

Vargo, S. L. & Morgan, F. W. (2005). Services in society and academic thought: An historical analysis. *Journal of Macromarketing, 25,* 42-53

Syllabus

Aug 31	Lecture 1: Background Reading: Bryson & Daniels (in press), Chesbrough & Spohrer (2006) Teboul (2006), Chapter 1 Zysman (2006) Optional: Hill (1977), Hill (1999) Lovelock (1983), Herzenberg et al (1999)
Sept 14	Lecture 2: Marketing Reading: Schneider & Bowen (in press) Teboul (2006), Chapter 2 – 3 Optional: Vargo & Morgan (2005) **First Assignment Due**
Sept 21	Lecture 3: Customers Reading: Chase (1978), Chase (in press) Prahalad & Ramaswamy (2000), Sampson (in press) Teboul (2006), Chapter 4 Optional: Chase & Dasu (2001), Sampson & Froehle (2006)
Sept 28	Lecture 4: Management Reading: Heskett et al (1994), Heskett & Sasser (in press) Hagel & Singer (2000) Teboul (2006), Chapter 5, Chapter 9 Optional: Karmarkar (2004), Karmarkar (in press) Quinn, Doorley & Paquette (1990) **Second Assignment Due**
Oct 5	Lecture 5: Quality Reading: Bitner et al (in press) Teboul (2006), Chapter 6 – 7 Optional: Frei (2006), Stewart & Chase (1999)

Oct 12	Lecture 6: Self Service Reading: Bitner et al (2002), Bitner et al (2008), Moon & Frei (2000) Optional: Schultze & Bhappu (2005) **Third Assignment Due**
Oct 19	Lecture 7: Collaboration Reading: Clark & Brennan (1991), Hutchins (1995) Maglio, Kandogan & Haber (2008) Optional: Johnson et al (2005), Klein et al (2005)
Oct 26	Lecture 8: Design Reading: Glushko (in press), Glushko & Tabas (2009) Teboul (2006), Chapter 8 Optional: Mills & Moberg (1982), Shapiro et al (1992) **Fourth Assignment Due**
Nov 2	Lecture 9: Service Innovation Reading: Miles (in press), Normann & Ramirez (1993) Teboul (2006), Chapter 10 Optional: Chesbrough & Davies (in press), Miles (2008)
Nov 9	Lecture 10: Service Systems Reading: Frei (2008) Maglio et al (2006), Maglio et al (2009), Spohrer et al (2007) Optional: Alter (2008) **Fifth Assignment Due**
Nov 16	Lecture 11: Service-dominant Logic Reading: Vargo & Lusch (2004), Vargo et al (in press) Optional: Lovelock & Gummesson (2004)
Nov 23	Lecture 12: Service Science Reading: Spohrer & Maglio (2008), Maglio & Spohrer (2008) Optional: Blomberg, (2008), Gadrey (2002) **Sixth Assignment Due**
Nov 30	*No Lecture*
Dec 7	Lecture 13: Future Reading: Fisk & Grove (in press) Gummesson (in press) Spohrer & Maglio (in press) Optional: IfM & IBM (2008), Palmisano (2006) **Final Paper Due**