

Service science: Catalyst for change in business school curricula



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For a service delivery system to produce optimal solutions to service-related business problems, it must be based on an approach that involves many of the traditional functional areas in an organization. Unfortunately, most business school curricula mirror the older traditional organizational structure that dominated businesses throughout most of the twentieth century. This structure typically consisted of vertically organized functions (or *silos*), such as production, marketing, and finance, with each silo operating largely independently of the others. Similarly, business schools today are usually organized by functional departments—such as marketing, finance, accounting, and operations management—with little interaction among them. Within this traditional silo-structured environment, it is very difficult to properly develop a curriculum, or even a course, in service management. Consequently, a significant gap exists between the education received by business school graduates and the skills that they need to succeed in today's service-intense environment. This paper explores the underlying causes of this gap and suggests ways in which the emerging field of service science can facilitate the changes in business school curricula that will make them more relevant in meeting the needs of today's businesses and organizations.

INTRODUCTION

Richard Chase of the University of Southern California, an early pioneer who has conducted research in services and introduced service operations as a business school course, has asked: “Why is it that 80 percent of the economy in the United States is service yet 80 percent of the required operations management courses in business schools still focus primarily on manufacturing?”¹

The answer, unfortunately, is very simple: Because that is the way it has always been. This issue is not

limited only to the field of operations management; for example, the core marketing course typically focuses on product marketing, not service marketing. If we extend our search to other disciplines, we find that the situation can be even worse. For instance, at the vast majority of business schools, no

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courses exist that address such issues as managing human resources within a service environment, developing service innovation, or determining how technology changes the way services are delivered.

Yet if we are to properly address the challenges that face today's service managers, we need to consider the individual impact of areas such as human resources, innovation, and technology as well as their interaction with each other. It is our contention that only by adopting such a transdisciplinary approach for both research and teaching can we obtain optimal solutions.

Although the management of services was first introduced in business schools as an academic discipline in the early 1970s,² in many institutions it remains merely an elective course. Service management is being recognized more and more as an important subject area in business schools, due in part to the realization that the economies of industrialized countries are, in fact, service economies. Services also comprise a significant portion of the economies of lesser-developed countries, and in every economy, the proportion of services is growing.

Another contributing factor, one that parallels the growth of the service economy, is that companies are now asking that business school graduates have a wider set of skills and knowledge than those learned in traditional business school disciplines. This is especially true at the graduate level. This shortfall was clearly articulated by Matthew Booth, Vice President of Operations, Boston Financial Data Services, when he said, "We employ a number of individuals with newly minted M.B.A.s. Although they have gained in-depth knowledge in various specific subjects, I observe that they struggle to integrate their knowledge and apply it in the workplace."³

Although service management is finally gaining recognition as a field of study, there are still significant challenges that business schools must address before service management can properly take its place alongside well-established, traditional business disciplines. In this paper, we identify these challenges, discuss the underlying causes of the gap between business education and the skills potential employers expect graduates to have, and propose a set of recommendations to close that gap.

WHY SERVICES ARE DIFFERENT

Most services tend to share a set of unique characteristics that distinguish them from manufactured goods, such as computers, automobiles, and kitchen appliances. These common, shared threads are not independent of each other; instead, they are often highly interrelated. They include customer interaction, intangibility, and perishability.⁴⁻⁶ *Customer interaction* means that, unlike a manufacturing process in which there is no customer involvement, the customer is considered to be a coproducer of the service and participates in the process. *Intangibility* means that a service cannot be actually touched because it is an act that is being performed. *Perishability* means that—unlike unsold products that can be inventoried and sold later—the capacity of the service system is limited by the presence of a customer participating in the service delivery process. For instance, hotel rooms that are not booked or airline seats that are not used for a given date cannot be saved to be sold at some future date.

The customers' interaction and the intangibility of services make their evaluation by customers much more subjective than that for products. That is why measuring the performance of a service is more difficult than that of a manufacturing process or its resulting product. Similarly, the perishability of services requires the simultaneous management of supply (which is an operations function) and demand (which is a marketing function) in order to maximize revenues or profits, as exemplified by the application of yield management to such services as airlines and hotels.

These three characteristics have significant implications with respect to the skills required by service managers and professional service workers and they have an impact on how service performance is measured.

Service workers are different

Tim Davis expressed the critical role of service workers in the service delivery process and the fact that the skills required by these workers differ significantly from those employed in manufacturing when he wrote, "A major difference between services and manufactured goods is that services do not come out of a mold looking the same each time. Most service work [at every level] is less structured. Quality has to be reenacted with each customer encounter. Core competencies in service firms

depend less on machine settings and more on committed employees. Few can achieve substantial improvements in customer satisfaction without building cultures with strong values that support their strategies.”⁷

The work performed in a service environment suggests that service workers require a very different set of skills than those required in manufacturing. These differences can be more readily understood if we look at them from the perspective of quality. The technical or *hard* skills of the workers are a key factor in the quality of manufactured goods. In contrast, people or *soft* skills are the critical element in the delivery of services. How workers interact with customers is as important, and in some cases more important, than the core or technical component of the service, which can often be viewed as a commodity. For example, in a hospital environment, concern for a patient on the part of the doctors, nurses, and other employees can have a significant impact on the patient’s overall satisfaction with his or her interaction with the hospital.

Service performance measures are different

The customer’s interaction with the service delivery process tends to increase variability in the process, both in actuality and, more importantly, from the customer’s perspective. The same service provided at the same time to two individual customers can be viewed entirely differently. Even the same service delivered to the same customer at different times can result in varying evaluations.

To better understand how customers assess their levels of satisfaction with a service, Parasuraman et al.⁸ developed a framework that identified the following five generic dimensions of service quality:

1. Tangibles—Appearance of facilities, equipment, personnel, and materials
2. Reliability—Ability to perform the service dependably and accurately
3. Responsiveness—Willingness to help customers and provide prompt service
4. Assurance—Ability to convey knowledge, trust, and confidence
5. Empathy—Caring, concern, and individualized attention

Each customer uses these dimensions either consciously or unconsciously in arriving at a measure of

satisfaction with a service. In essence, this evaluation process assigns both a relative weight to each one of these dimensions and a performance measure to arrive at an overall measure of service quality.

Another challenge in service performance measurement is linking customer satisfaction to more-concrete, operational performance measures, such as waiting times. This is necessary for improving the service delivery process because customer satisfaction, by itself, does not provide any insight into the root causes of the problems.

But everything is service...

At one time, manufacturing was considered to be totally separate from service, but this is no longer the case. Both are essential and must be properly integrated and aligned for a firm to succeed in today’s highly competitive markets. From a broader perspective, as Teboul⁹ points out, every organization, be it for-profit or not-for-profit, public or private, has customers by whatever name they may go by, be it clients, patients, guests, passengers, or even students. How these organizations interact with their customers falls within the realm of service management.

CURRENT CHALLENGES TO BUSINESS SCHOOLS

The functional structure that organizations began adopting at the end of the nineteenth century continued to dominate business organizations for most of the twentieth century. As the Industrial Revolution proceeded, organizations grew larger, more efficient, and more sophisticated, resulting in a successful and relatively stable business environment. The hierarchical structure of functional silos, such as marketing, production, and finance, created a division of labor into areas of specialization or expertise. Information flowed up and down through the hierarchy, but integration took place across the functions only at the highest levels of the organization. The resultant economies of scale, specialization, and centralized coordination combined to create organizations that were highly capable of producing a narrow range of goods and services at relatively low costs. The major drawback of this type of organization is that coordination among the silos took a relatively long time to accomplish. This was especially true with respect to making changes of any kind, like introducing new products or adjusting for unexpected fluctuations in customer demand, but this was a minor inconvenience in a

Table 1 Academic structure of top ten M.B.A. programs in 2006 (see Reference 11)

School	Ranking	Provides Integrated or Service Program	Organized by Traditional Departments
The University of Chicago Graduate School of Business	1	No	Yes
Wharton School of the University of Pennsylvania	2	No	Yes
Kellogg School of Management, Northwestern University	3	No	Yes
Harvard Business School	4	No	Yes
Stephen M. Ross School of Business, University of Michigan	5	Multidisciplinary Action Program required of all M.B.A. students	Yes
Stanford Graduate School of Business	6	General Management Perspectives program that transcends disciplines (begun in 2007)	No
MIT Sloan School of Management	7	Sloan Innovation Period that divides a course semester into six weeks on either side of an intense week of experiential leadership	Yes
University of California, Berkeley, Haas School of Business	8	Center for Open Innovation that is engaged in SSME projects	Yes
The Fuqua School of Business, Duke University	9	No	Yes
Columbia Business School	10	No	Yes

SSME: service science, management, and engineering

world that was highly predictable and remained relatively stable from year to year.¹⁰

Because of advances in information technology, especially the Internet, a stable business environment with a relatively high degree of predictability no longer exists in most industries. At the same time, the power in the marketplace has shifted from the producer to the consumer, as reflected by the fact that products can be purchased anywhere in the world at any time. Consequently, organizations now need to be able to react more quickly to changing market forces. To accomplish this, companies are literally tearing down their functional silos and adopting a more cross-functional (or transdisciplinary) approach to doing business. This emerging trend is best manifested by the increasing emphasis on the development of business processes, which, by definition, cut across the different functional areas within an organization.

Business schools have lagged in this transition to a more flexible organizational structure that provides students with the skills necessary for success in

today's highly dynamic business environment. As shown in **Table 1**, most of the top ten Masters of Business Administration (M.B.A.) programs today continue to be organized by traditional functional departments, with little interaction taking place between departments.

SKILLS GAP

The inability to develop a truly integrated, applied curriculum reflects a larger problem at business schools; namely, that a significant gap exists between the skills that business schools are providing their students and the skills that companies need^{12,13} (referenced herein simply as the *gap*). This shortfall in business education was also recognized by Bennis and O'Toole,¹⁴ who suggest that business schools must provide more relevant curricula to prepare their students to be successful business professionals.

While Peters¹⁵ suggests that discipline-specific content should be the focus of an undergraduate business curriculum, M.B.A. programs and other business-related graduate programs should place

Table 2 Service-oriented initiatives at business schools

School	Service Initiative
North Carolina State University College of Management	Introduced an SSME curriculum in January 2006
Robert H. Smith School of Business, University of Maryland	Center for Excellence in Service
Lally School of Management & Technology, Rensselaer Polytechnic Institute	Center for Service Research and Education
W. P. Carey School of Business, Arizona State University	Center for Service Leadership
University of Crete	SSME Summer School
Vlerick Leuven Gent Management School	Service Management Program
University of California, Berkeley, Haas School of Business	SSME Certificate Program

SSME: service science, management, and engineering

their emphasis on integrating the traditional business disciplines,¹⁶ because that is what is taking place in businesses today.^{15,17} Integration and exposure to real-world problems are extremely relevant to M.B.A. students.¹⁸

Some initial steps toward an integrated business education are being made by a few of the top-rated business schools, such as University of California, Berkeley,¹⁹ Stanford,²⁰ and Yale.²¹ In addition, other schools have also introduced service-oriented programs (*Table 2*). However, most business schools today still teach primarily the traditional, long-established functional courses that focus primarily on products and offer little or no integration.

Another problem with educating graduates is that while the world of work has moved from a notion of lifelong employment to that of lifelong employability, higher education has not done a good job of creating skilled, reflective self-learners.²² Lifelong employability requires the continuous development of knowledge, skills, and attitudes. Business schools traditionally focus on knowledge, but there is growing evidence of the demand for skills and attitudes,^{23–26} areas in which business schools have not been strong.²⁷

Students do have choices in terms of curriculum. However, a curriculum that is discipline-specific and courses whose design is functionally focused do not provide them with the opportunity to work through complex, interdisciplinary problems, nor do they put the onus on students to determine which discipline or function offers the best solution to a

problem. Rather, higher education tends to segment problems by functional areas, thereby requiring students to view them through the relatively narrow lens of the discipline in which a specific course resides. As a result, students typically apply singular, one-dimensional solutions, to very complex problems, but more often than not, the solutions are suboptimal. The notable exceptions may be the typical capstone course or consulting project course in which students have the opportunity to apply multiple perspectives to a complex business challenge.²⁸

The reason why this gap exists was well described by Nicholas M. Donofrio, IBM Executive Vice President, Innovation and Technology, when he said, “If nothing changes . . . nothing changes.”²⁹ The causes for this gap can be traced in large part to the perpetuation of existing processes within academia and the current organizational structure, neither of which address the needs of today’s business community.

Existing processes

The existing processes for faculty advancement and promotion encourage and reward the perpetuation of what has been done in the past, resulting in a tendency to stifle creativity and innovation, especially with respect to crossing discipline lines to accomplish transdisciplinary research and teaching. These processes can be divided into the three major categories that are sequential in a faculty member’s career path: the Ph.D. process, the publishing process, and the tenure process.

Ph.D. process

The current process for obtaining a Ph.D. in a business-related discipline at most colleges and universities typically requires that the candidate choose a dissertation topic that is of interest to his or her faculty advisor. Often, the topic is an extension of the advisor's own specific area of research, which, in turn, is usually a continuation of the advisor's dissertation (which was based on a previous advisor's area of interest, and so on). Therefore, as a starting point in this process, the Ph.D. candidate must become familiar with the same body of knowledge with which the advisor is acquainted so they can share a common platform for developing a research topic for the dissertation. The dissertation, in turn, provides an initial research platform for Ph.D. candidates when they are in their first years as tenure-track professors, and so the cycle repeats itself.

As part of this process, the Ph.D. candidate is encouraged to become an expert in one very specific, narrow area within his or her discipline. Rarely is one encouraged to cross discipline lines, as this would require venturing into an area unfamiliar to the advisor.

Publishing process

There are several organizations, including the *Financial Times* and the University of Texas at Dallas, that rank the quality of academic journals. However, the vast majority of the top-ranked academic journals in these lists focus on specific functional areas. Equally important, none of the top-ranked journals in these lists have a specific service focus or orientation. Consequently, while some of these journals do accept service-related papers, they tend to focus primarily on their own disciplines. Thus, at schools that require publication in top-tier journals as a major criterion for tenure (because it affects their school's ranking), faculty members would tend to avoid publishing service-related papers. As a result, in competing for top positions in business school rankings by publications such as *Business Week* and *U.S. News & World Report*, business schools tend to perpetuate this problem.

In addition, according to James Herschauer,³⁰ a professor at Arizona State University and a former editor of *Decision Sciences*, journal editors have significant difficulty finding faculty to review service-related papers because they are transdisciplinary in nature. Reviewers typically have a

background in one particular area within a functional discipline and consequently do not feel that they are qualified to review a paper that attempts to integrate several disciplines.

Tenure process

The tenure process continues to encourage faculty to develop significant expertise in a very specific area within their discipline. When the tenure candidate's publications are sent out for external review (part of the tenure appointment process at many schools), many reviewers will not comment on those aspects of the candidate's papers that are outside their own area of expertise for the same reasons cited in the publishing process. As a result, the tenure evaluation committee very often receives only partial reviews on the candidate's research, which can translate into a level of discomfort with the quality of the tenure candidate's publications.

Current organizational structure

Current discipline-focused individuals, those who occupy the vast majority of the faculty positions in business schools, are not the only reason for the continuing creation of narrow, discipline-focused courses. The typical organization structure in academia also exerts a major influence. Looking beyond the structure of business school departments aligned with functional disciplines, we see that the organization of independent colleges within the larger university structure further encourages the insular focus of scholarship and teaching. In most academic institutions, decisions about hiring, curriculum, evaluation, and promotion are solely the responsibility of the discipline-specific group; that is, the faculty and administration within a college or school, rather than an interdisciplinary team of colleagues representing different colleges or schools.

The restrictive allocation of resources tends to create another barrier to integration across disciplines. Currently, there are only a very small number of funding opportunities for interdisciplinary research projects. The U.S. National Science Foundation, for example, which is a major source of funding for scholarly research in higher education, offers predominantly narrowly focused grant opportunities within very specific fields of research.

EMERGENCE OF SERVICE SCIENCE AS A CATALYST FOR CHANGE

With the dawn of the twenty-first century came the realization of the need for a new academic discipline

that addressed the predominant sector of the major world economies—namely, services.

In the post–World War II era, IBM foresaw a significant and growing need for individuals with computer-related skills and noted that the academic community was not providing them. As a result, they took a leadership initiative to develop computer science as an academic discipline.³¹ Similarly, IBM is now advocating the recognition of service science as a legitimate academic discipline because the company foresees a significant and growing demand for graduates with the transdisciplinary skills needed to address the business challenges of a service-oriented economy.

However, the creation and legitimization of a new academic discipline does not just happen. Henry Chesbrough,³² Executive Director of the Center for Open Innovation at the University of California, Berkeley, Haas School of Business, has compared the legitimization of computer science as an academic discipline to the now emerging discipline of service science, and identified three necessary factors.

First, there is the magnitude of the scale of the phenomenon. When computing reached critical mass, it was viewed as sufficiently important to be justified as a legitimate field of research; similarly, with services well past critical mass in all of the industrialized nations, they can now be viewed to be of sufficient importance to justify their own area of research, rather than being seen simply as an appendix to existing disciplines (as is now predominantly the case).

Second, the tools of the trade for computing, such as computers, programming languages, and software, became widespread and standardized, facilitating research. Similarly, the tools of service creation and delivery are becoming increasingly acknowledged and used, ranging from different measures of service performance, such as service quality, to the continuing development of business processes that, by definition, cut across the traditional functional silos within an organization.

Third, grand challenges were identified within the field of computer science that served as focal points for bringing together the individuals who were interested in this specific area of study. Likewise,

several grand challenges are emerging in the field of service science. One example is the challenge of designing new and innovative services to better meet the needs of customers. Another challenge is to accept that there is an element of intangibility of a service, yet to identify measures of service performance, especially productivity measures.

Service science can be defined as a transdisciplinary, structured approach to the study, design, and management of service systems that add value from the customer's perspective. As such, it provides a much-needed platform for future research in this area. Equally important, the need for developing this new discipline is being driven by customers of the academic community; that is, the firms that hire its graduates. Service science can no longer be ignored or relegated to the back shelf. The demand by industry for graduates with service-oriented skill sets is providing a major impetus for the academic community to acknowledge service science as a legitimate academic discipline. We call this a *demand-pull* strategy for change.

RECOMMENDATIONS

Recognizing the legitimacy of service science as an academic research and teaching discipline is not sufficient. Rather, it is the first important step, serving as both a catalyst and platform for future actions that will ensure its rightful place in academic institutions.

It would be easy to say that the responsibility for closing the skills gap rests solely with the academic community, and in particular, business schools. However, for the reasons cited earlier in the “Existing processes” section, academia cannot accomplish this by itself. A partnership between the two primary stakeholders involved—the academic institutions that educate individuals and the businesses and organizations that subsequently employ them—is therefore necessary. In light of this shared responsibility approach, we propose several recommendations that can facilitate the acceptance of service science within the academic community.

Role of the business community

Business organizations in every sector of the economy need to continue engaging in a demand-pull strategy with respect to hiring graduates with the knowledge, skills, and perspectives needed in today's service-intense environment. To start, firms

need to clearly communicate to academic institutions the skill sets they require and the opportunities that exist, both now and in the future. Firms should

■ Measuring the performance of a service is more difficult than that of a manufacturing process or its resulting product. ■

also create or revise job descriptions so that they align with the skill sets they have identified. Only by articulating their need for graduates with specific knowledge, skills, and perspectives can the case then be made for the academic community to take the actions necessary to change curricula. At the same time, this demand-pull strategy makes students more aware of which academic programs and courses are most likely to provide them with these skills.

Today, it is generally recognized that the education and development of individuals does not end when they complete their formal higher education. The business community therefore needs to provide an incentive and reward system to encourage employees to seek additional knowledge and skills on an ongoing basis. Businesses can also have a significant influence on the structure of post-graduate programs, even to the point at which programs can be custom-designed to meet individual organizational needs. In working with academics to develop these new programs, both sides can gain from the experience, and the results can extend into the more formal degree programs offered by academic institutions.

Role of business schools

There are several things business schools can do to close the gap that exists between the skills that practitioners want in graduates and what is currently being provided. These include developing more integrated courses, interacting more with the business community, and recognizing the need to form partnerships with practitioners.

Integrated courses

Business schools must begin developing integrated curricula. However, integration cannot be accomplished by simply waving a wand over a set of courses and saying *integration*, as is often the case.

It requires commitment on behalf of both academic institutions and professors. Recognizing that the number of courses in any given degree program must remain constant, each functional area must be willing to concede some of its current turf (that is, required courses) in order to allow integration to take place in the form of standalone courses. At Bentley College, for example, in its revised part-time M.B.A. program, which began in the fall of 2007, each of the functional areas has been reduced by approximately 30 percent to allow not only for an integrative module, but also to reduce the total number of required core business courses.

In addition, a new organizational framework is necessary that permits the structure to follow the strategy. As a starting point, all required core business courses should have a common designator rather than those of the traditional functional departments. For example, the undergraduate business core courses at Bentley College are all designated *GB* for general business, and the graduate core business courses are designated *BF* for business fundamentals. This constitutes more than just a name change for these required core business courses because individual departments no longer have the primary responsibility for designing course content; rather, this is now done at the college level to ensure proper coverage of material across the entire set of core courses and to ensure that integration takes place among these courses.

We observe that a major weakness with this approach is that the courses tend to be treated as second-class citizens by the functional department chairs, and, as such, are often taught by junior faculty or even adjunct faculty. To rectify this problem, it is recommended that these core courses come under the responsibility of a general business core department that consists of faculty from all participating disciplines. Such an approach was adopted at the University of Auckland Business School and has proven to be very effective and well received by participating faculty.³³

Another approach to integration is to bring service science concepts into the classroom by introducing material and cases that induce students to take a transdisciplinary approach. These courses should be team-taught by individuals from different functional areas so that several perspectives can be presented. In addition, the academic community needs to

develop materials that show students how to exploit both structured and unstructured knowledge. For example, a required Bentley College course titled “Customer Focused Management” was designed for the full-time M.B.A. program and was team-taught by faculty from the operations and marketing areas. Using a service orientation, this course addressed issues in technology, marketing, operations, and human resources. It has been recommended that, as of fall 2008, this course be renamed Service Science and Management, and that it continue to address these topics within both a service and technology framework.

Developing relevant teaching materials in a timely and continuous manner is an ongoing challenge for academia. To facilitate such activities, several steps should be taken: faculty should engage in communities of practice, they should be provided incentives in the form of internal institutional grants for material and case development, they should share materials across institutions, and they should visit world-class service organizations on a continuing basis. It is incumbent upon the senior faculty who are actively engaged with industry through consulting and executive education programs to take a leadership role in promoting these activities.

Unfortunately, sharing best practices is not a common characteristic among academics. However, sharing information in the form of newly developed materials and cases can lead to continuous improvement and can ensure consistency in delivery through effective pedagogy. Building a sense of trust and collaboration is important and can be facilitated by including collaboration as a component of an individual’s evaluation and promotion. Sharing can also be facilitated by providing a central repository for service materials and best practices, such as that currently provided by Scott Sampson at Brigham Young.³⁴

More interaction with business

The academic community needs to overcome the mindset that it should maintain a healthy barrier between itself and the nonacademic real world. In fact, just the opposite is true. Academia at both the organizational and individual levels needs to actively engage in partnerships with industry to develop curricula. This can be accomplished in several ways: taking students on field trips to companies, inviting guest speakers from industry

into the classroom, providing student internships at companies, and providing students with opportunities to undertake real-world projects as part of a course. Such interactions with the real world reinforce concepts presented in the classroom, introduce students and professors to current business practices, and provide companies with an opportunity to learn more about potential employment candidates.

Need for a partnership

Just as business has recognized that the customer can be a coproducer in the delivery of many services, we suggest that a similar coproduction service model be applied to higher education in the form of a partnership between academia and business. Such a partnership would entail the following:

- Joint curriculum development and course delivery
- Opportunities for writing service-oriented transdisciplinary cases
- Student internships
- Research partnerships to better understand the needs of the service economy
- Development efforts specifically targeted at an integrated service science curriculum

Such partnerships would allow businesses to be much more proactive and perhaps shift the emphasis from the current short-term focus on the annual business-school rankings to a longer-term perspective on service science and integration—which would ultimately have a positive impact on rankings.

CONCLUSIONS

Since its introduction earlier in this decade, the discipline of service science has made significant progress in being acknowledged as a legitimate area of study and research. It is being increasingly accepted by the academic community, and its momentum continues to build. However, as with the introduction of any new product or service, the early adopters are typically the innovators, those looking for change, for something new and different. In other words, much of what has been done to date in the academic community with respect to service science has been accomplished by those who already recognize the need for change because they had a previous strong interest in services, be it from a marketing, operations, technology, or human

resources perspective. Thus, one could say that to date, we have been preaching to the choir. We therefore need to take service science to the next level and include academics who previously had not considered the study and teaching of service science to be within their respective realms of research or teaching.

Academia cannot do it alone. It needs the involvement and commitment of industry practitioners to continue to support ongoing efforts to develop new service science curricula. Such an approach will ensure that these programs meet the key criterion for relevance, which is that both students and employers alike demand them. In so doing, service science—as computer science has already done—can take its rightful place among traditional academic disciplines.

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