A Proposal for a Service Science Discipline Classification System

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Abstract

This paper proposes a Discipline Classification System for the Service Science discipline called SS-DCS. *We have two basic goals in establishing the SS-DCS: (1) support categorization of Service Science-related activities, which is often needed in scenarios such as when allocating reviewers in conferences, allocating research funds, etc.; and (2) better define the term Service Science and its scope as a discipline.*

1. Why Does Service Science Need a Discipline Classification System?

Most of research on services, especially in the business and management side of it, has been labeled in the past as *Service Marketing*. In engineering, most of work tended to fall under the head of *Production Engineering*. In both cases, the labeling is now quite restrictive to accommodate the breadth of research in the area of services. Starting in 2004, there has been a movement towards making the study of services and service systems as a first class discipline – given its economic importance and reach into people's lives – exemplified by the *SSME (Service Science, Management, and Engineering)* initiative [16, 31]. More recently, there has been a tendency of abandoning the acronym SSME and simply call this discipline as *Service Science*.

In this paper we propose a *discipline classification system (DCS)* for the emerging field of *Service Science.* We have two basic goals in establishing a discipline classification system for Service Science: (1) support categorization of Service Science-related activities, which is often needed in scenarios such as when allocating reviewers in conferences, allocating research funds, etc.; and (2) better define the term Service Science and its scope as an academic discipline. Throughout this paper, we refer to this proposed discipline classification system as *SS-DCS*.

It is often hard to define a discipline in its infancy, and, in the case of services, we also battle with the historical difficulty of defining what services are (for a discussion of some of the different approaches and definitions, see [25]). We will take here the simple (maybe simplistic) stand that Service Science is the study of services and service systems, and to try to define the scope of the discipline by creating a comprehensive list of disciplines and sub-disciplines according to what we understand Service Science is, and as comprehensive as possible.

Our idea is to try to create a Service Science definition by enumeration instead of description. If a large portion of the community agrees with this classification system, then we the term Service Science becomes much better defined, especially in its scope. At the same time, the community gets a litmus test for particular Service Science definitions: any proposal needs to have enough descriptive power to include most of the listed disciplines, and to exclude non-listed disciplines.

We do not expect the SS-DCS to be accepted without restrictions or modifications by the research and practice community in the Service Science arena. Rather, our proposal's goal is to create a document that starts and grounds the discussion, and contributes to simplify the debate about the definition of Service Science as a discipline. At the same time, we expect the SS-DCS proposed here to be immediately useful for people involved in activities that require categorization of Service Science-related documents or activities such as articles in conferences and journals, research applications for funding, and curricula development.

2. Guidelines of SS-DCS

Although we understand that we expect that a lot of the new and exciting ideas in Service Science are likely to come from interdisciplinary work, we consider that it is important to define Service Science not as the intersection of a number of disciplines, but as a union

Service Science
Discipline Classification System

A. General
1. Service Science Education
2. Research in Service Science
3. Service Science Policy
4. History of Services
5. Case Studies
6. Miscellaneous

B. Service Foundations
1. Service Theory
2. Service Philosophy
3. Economics of Services
4. Theoretical Models of Services
5. Mathematical Models of Services
6. Service Complexity Theory
7. Service Innovation Theory
8. Service Foundations Education

C. Service Engineering
1. Service Engineering Theory
2. Service Operations
3. Service Standards
4. Service Optimization
5. Service Systems Engineering
6. Service Supply Chains
7. Service Engineering Management
8. Service Systems Performance
9. Service Quality Engineering
10. New Services Engineering
11. Computer Services
12. Information Technology Services
13. Service Engineering Education

D. Service Management
1. Service Marketing
2. Service Operations
3. Service Management
4. Service Lifecycle
5. Service Innovation Management
6. Service Quality
7. Human Resources Management
8. Customer Relationship Management
9. Services Sourcing
10. Services Law
11. Globalization of Services
12. Service Business Education

E. Human Aspects of Services
1. Service Systems Evolution
2. Behavioral Models of Services
3. Decision Making in Services
4. People in Service Systems
5. Organizational Change in Services
6. Social Aspects of Services
7. Cognitive Aspects of Services
8. Customer Psychology
9. Education in Human Aspects of Services

G. Service Design
1. Service Design Theory
2. Service Design Methodology
3. Service Representation
4. Aesthetics of Services
5. Service Design Education

I. Service Arts
1. Service Arts Theory
2. Traditional Service Arts
3. Performance Arts
4. History of Service Arts
5. Service Arts Education

J. Service Industries*
1. The Service Industry
2. Utilities
3. Wholesale Trade
4. Retail Trade
5. Transportation and Warehousing
6. Information Services
7. Finance and Insurance
8. Real Estate and Rental
9. Professional and Technical Services
10. Management Services
11. Administrative and Support Services
12. Educational Services
13. Health Care and Social Assistance
14. Arts, Entertainment, and Recreation
15. Accommodation and Food Services
16. Public Administration Services
17. Other Service Industries

** service industries based on NAICS 07*

of more traditional service-related ideas, academic disciplines, experiences, and practices.

Based on this premise, we establish the first level disciplines of the SS-DCS based on traditional academic disciplines: science, engineering, business, social sciences, design, arts, and applications. Again, the goal here is not to reinforce the well established silos of research, but to simplify the classification task by providing well-know first-level discipline headings.

As a first phase, we have focused on defining a 2-tier SS-DCS, with the understanding that as we progress in the discussion of our proposal with the community, at least one more layer could be created. Notice that there are in general less overlapping between nodes of 2-tier academic classification systems than in more layered discipline classifications systems: for example, the ACM Classification System of Computer Science explicitly makes links among members of its 4-layer classification system.

Finally, we have tried to define the SS-DCS so it can be used to classify both documents such as academic papers, and human activities. This, however, creates some 2nd-tier disciplines which do not make sense either as one or the other. We leave to the users of the SS-DCS the discretion to omit elements of the classification system that are not appropriate to the task in hand. However, for the sake of uniformity, and to allow easy cross-referencing, we recommend the numbering of the disciplines to be kept.

3. The SS-DCS

Our proposed discipline classification system for Service Science, referred here as the SS-DCS, is summarized in the diagram above. We propose the subdivision of Service Science in 8 basic disciplines, which map straightforwardly into traditional ways by which human knowledge is traditionally categorized: foundations and theory, engineering, business, social sciences, design, arts, and applications.

In the following paragraphs, we provide brief description of the heading of each SS-DCS discipline and sub-discipline.

A. General

This category encompasses works and activities related to the discipline of Service Science and services in general. It should be used mostly for activities and works that do not naturally break up into components from the different traditional disciplines and/or do not fit well within any of the other sub-disciplines or combination of them.

A.1. Service Science Education

This sub-discipline comprises works and documents such as textbooks, introductory texts, reviews, and reports on Service Science education. For example, Zeithaml et alli [35], Fitzsimmons & Fitzsimmons [10].

A.2. Research in Service Science

This sub-discipline includes works such as statistics and reports on research in Service Science, research initiatives, research reviews, who-is-who lists, state-of-art reports, bibliographies. For example, Tamura et alli .[33]

A.3. Service Science Policy

This sub-discipline encompasses works and documents that instrument, advocate, and define policies for Service Science education, research, and development policies and strategies. For example, Spohrer et alli [31]

A.4. History of Services

This is the sub-discipline that accounts and analyzes the evolution of services through time in a historical perspective; includes also biographies of people in the services industry, research, or education. See, for instance, Bryson et alli [6].

A.5. Case Studies

This is sub-category aimed to agglutinate case studies of service structure, architecture, development, innovation, management, engineering, design, and other aspects of services.

A.6. Miscellaneous

Other documents and activities related to Service Science. For example, Abe [2].

B. Service Foundations

Service foundations refer to works and activities that examine services from a theoretical perspective and try to establish general models and theories, without being specific about particular industries.

B.1. Service Theory

This sub-discipline comprehends works and activities that discuss, criticize, and establish the theoretical foundations of services, without dealing deeply with philosophical, economical, or modeling of services. For example, Sampson & Froehle [25]

B.2. Service Philosophy

This sub-discipline deals with philosophical issues in the context of services, as well as service discussions based on philosophical approaches and methods. For example, Vargo & Lusch [34].

B.3. Economics of Services

This sub-discipline encompasses research, literature, and activities that examine services from the standpoint of Economics, including macro- and micro-economy of service firms and systems, the role of services in the economy, and issues related to economic development. For example, [6].

B.4. Theoretical Models of Services

This sub-discipline is centered on models of services that are based on conceptual but basically non-mathematical principles; and models and principles supported and derived from empirical research. For example, Gaudrey & Gallouj [11], Pinhanez [23].

B.5. Mathematical Models of Services

This sub-discipline focuses on models of services expressed mostly in mathematical terms, based either in first-principle derivations or in empirical research. For example, Oliva & Sterman [19].

B.6. Service Complexity Theory

This is the sub-discipline that houses works which focus on the issue of the complexity of service systems, or look into service systems from the standpoint of Complex Systems.

B.7. Service Innovation Theory

This sub-discipline groups theoretical aspects of service innovation, including reports and data, innovation measurement, and innovation methodology; not including works that deal mostly with management of innovation (see D.5).

B.8. Service Foundations Education

This sub-discipline encompasses documents, methods, statistical data, textbooks, and systems that support the education in Service Foundations.

C. Service Engineering

Service Engineering is the discipline of Service Science that applies scientific knowledge about services to the design, construction, analysis, and operations of service systems.

C.1. Service Engineering Theory
This sub-discipline groups theoretical models used in Service Engineering, with emphasis on mathematical models, simulations, and understanding of the key components and principles of service systems.

C.2. Service Operations
This is the sub-discipline compreheands works that focus on the architecture, dimensioning, and control of service systems, including issues such as queue management, demand forecasting, capacity planning, etc. For example, Mandelbaum & Zeltyn [17].

C.3. Service Standards
This category groups technical standards and norms; and best practices compilations for services and service systems, covering issues such as quality, reliability, and processes.

C.4. Service Optimization
This sub-discipline focuses on methods and systems to analyze and support the optimization of service operations, mostly using methods and tools from Operational Research and similar areas.

C.5. Service Systems Engineering
This is the sub-discipline for grouping activities and works that study, analyze, and build service systems based on concepts and methods from Systems Theory. For example, Alter [3].

C.6. Service Supply Chains
This sub-discipline is aimed at studies and methods that address the system of organizations, people, resources, information, and people needed to deliver services to customers, and their differences to manufacturing supply chains. For example, Sengupta et alli [29].

C.7. Service Engineering Management
In this sub-discipline we group methods, analytical tools, and case studies related to the management of the engineering aspects of a service system; it does not include general issues of management of service systems (see D.3).

C.8. Service Systems Performance
This is the sub-discipline that encompasses studies, methods, models, and simulations of service systems that lead to the understanding, measurement, and improvement of their performance.

C.9. Service Quality Engineering
This sub-discipline deals with engineering aspects of service quality, covering quality-inducing design and architectures, fail-proof and fail-safe methods, quality measurement technology (such as Pokayokes). For example, [8].

C.10. New Services Engineering
This sub-discipline is focused on issues specific to the engineering of non-existent services, including design, architecture, dimensioning, and planning; it does not include works focused on innovation methods and market considerations.

C.11. Computer Services
This sub-discipline includes works and activities that cover the specific case where a service is provided by computers to other computers, such as in the case of web-services and Service-Oriented Architectures (SOA). For example, [5, 9, 21]

C.12. Information Technology Services
This sub-discipline deals with methods and studies of the architecture, operation, engineering, sizing, management, and optimization of information technology service systems.

C.13. Service Engineering Education
This sub-discipline encompasses documents, methods, statistical data, textbooks, and systems that support the education in Service Engineering.

D. Service Management

Service management is the discipline that of Service Science that studies management, organizational, and business aspects of services.

D.1. Service Marketing
Historically encompassing all research study in services, the SS-DCS reserves the term for its specific meaning related to marketing issues in the context of services, as the study of value-creating customer provider interactions, outcomes and relationships.

D.2. Service Operations

This sub-discipline focuses on the underlying processes and procedures required to fulfill a service, concentrating on the business perspective as opposed to the engineering foundation. For instance, it includes studies and works about the management aspects of service supply chains.

D.3. Service Management

This sub-discipline deals with the application and extension of management methods and tools to service systems activities, as well as the development of new methods and tools.

D.4. Service Lifecycle

This sub-discipline focuses on the study of the characteristics of the lifecycle of a service, especially in its differentiation aspects with product lifecycle. It includes the methods to design, establish, manage, and monitor the lifecycle of a service.

D.5. Service Innovation Management

This sub-discipline encompasses activities and works related to innovation in services, including the promotion and requirements for developing new outputs and delivery processes, procedures in service systems, and methodologies, methods to foster innovation, etc.

D.6. Service Quality

This sub-discipline studies issues involved in measuring and assuring quality in services, involving issues such as perception and measurement of quality, methods and processes to control and assure quality, human error and its impact on quality, and standards. A good review of research in this area can be found in [28].

D.7. Human Resources Management

This sub-discipline deals with processes and procedures for managing the human aspects and delivery outputs for the people fulfilling a role within an enterprise, and their impact on the delivery of services. For example, Lovelock & Wirtz [14].

D.8. Customer Relationship Management

This sub-discipline encompasses issued related to processes, tools, and procedures used by a service provider for producing and maintaining a relationship and ongoing value with its customers.

D.9. Services Sourcing

This sub-discipline studies issues related to outsourcing and off-shoring of services, including make-versus-buy decisions for service activities, management of sourcing contracts, service level agreements, business-to-business on-line markets, and all the methods and techniques used to determine, deploy, and delivery service sourcing structures. For instance, Sanford & Taylor [26].

D.10. Services Law

Services Law is the collection of studies and legal doctrines which are relevant to services, including contractual issues, legal framework and government regulation, litigation, and negotiation. It also includes studies related to intellectual property, copyright, and patenting which are specific to services.

D.11. Globalization of Services

This sub-discipline studies the on-going process of globalization and how it affects the service industry. It includes not only works which deal specifically to off-shoring of services but also with service delivered across borders (such as in the case of international airlines) and the management and structure of service multinationals. For example, Palmisano [20].

D.12. Service Management Education

This sub-discipline encompasses documents, methods, statistical data, textbooks, and systems that support the education in Service Management.

E. Human Aspects of Services

This discipline of Service Science maps work and activities specific to services that originate in humanistic disciplines such as social sciences, cognitive science, psychology, etc.

E.1. Service Systems Evolution

This sub-discipline studies the evolution of service systems in size, complexity, and organizational structure, with special consideration for the human aspects and contributions.

E.2. Behavioral Models of Services

This sub-discipline looks into models of service acts, service systems, and customer relationships which are based on behavioral sciences.

E.3. Decision Making in Services
This sub-discipline aggregates activities and works that investigate how the decision-making process is performed in service situations, including choice of providers and service aspects, perception of choices, and human value assessment of services.

E.4. People in Service Systems
This sub-discipline encompasses works and activities that explore how customers and employees behave when they are part of a service system. Although it looks into human resources issues from the perspective of social sciences and psychology, it does not discuss management issue directly (see D.3)

E.5. Organizational Change in Services
This sub-discipline focuses on the effects of structural change in service organizations, such as when mergers occur, outsourcing and off-shoring, etc. For example, [18].

E.6. Social Aspects of Services
This sub-discipline encompasses activities and works that investigate how social structures and relationships in service systems are created, perceived, and used, from a human perspective.

E.7. Cognitive Aspects of Services
This sub-discipline deals with activities and works that look into issues in services from the perspective of cognitive science.

E.8. Customer Psychology
This sub-discipline uses psychological tools to study and model customer behavior.

E.9. Education in Human Aspects of Services
This sub-discipline encompasses documents, methods, statistical data, textbooks, and systems that support the education in Human Aspects of Services.

F. Service Design

The discipline of Service Design looks into services and service systems from a traditional design perspective, that is, using a holistic view that considers the human aspects of the user, the societal context, aesthetical considerations, and pleasure-related issues.

F.1. Service Design Theory
This is the sub-discipline which discusses theoretical aspects of the design of services, from historical, humanistic, and methodological perspectives. For example, see Chase [7] or Mager [15].

F.2. Service Design Methodology
This sub-discipline encompasses works and activities that describe, discuss, analyze, and report the use of methodologies specific to service design. For example,

F.3. Service Representation
This is the sub-discipline grouping issues related of how to represent services and service systems, how to create the representations, and their use in practice. For example, Shostack [30] or Pinhanez [24].

F.4. Aesthetics of Services
This sub-discipline focuses on aesthetical issues in service systems, environments, and experiences, including their criticism, analysis, and comparison. For example, Pine & Gilmore [22, chapter 2]

F.5. Service Design Education
This sub-discipline encompasses documents, methods, statistical data, textbooks, and systems that support the education in Service Design.

G. Service Arts

The discipline of Service Arts encompasses artistic works and related activities that have more a resemblance to services than to manufacturing. A typical example of service arts are the performing arts, where artists do art works in front of live audiences, such as in musical concerts, dance and theater performances, and performance art.

We consider the inclusion of an “art” discipline inside the scope of Service Science very important, first as a way to ratify the truly multidisciplinary aspect of the field. But most importantly, as much as painting and sculpture can be seen as providing ideal, pure models of reference for the manufacturing industries, we see the Service Arts as a source of realizations of what could services in their purest, most idealized form.

G.1. Service Arts Theory
This sub-discipline deals with theoretical aspects of Service Arts, including analysis, criticism, and comparative studies. For example, Barba & Savarese [4] or Schechner [27]

G.2. Traditional Service Arts
This sub-discipline groups artistic works and activities which have been traditionally practiced by peoples around the world. It includes artistic events associated with annual festivals, performance of martial arts, minstrel performances, and hosting arts such as the Japanese tea ceremony and geisha arts.

G.3. Performance Arts
This sub-discipline groups not only theatrical, musical, and dance artistic works and events, but also more contemporary arts such as performance art.

G.4. History of Service Arts
This sub-discipline groups works and activities that research, describe, analyze, and compare service arts under a historic framework. For example, in performance art, Goldberg [12].

G.5. Service Arts Education
This sub-discipline encompasses documents, methods, statistical data, textbooks, and systems that support the education in Service Arts. For example, Stanislavsky [32] or Hagen [13].

H. Service Industries

This is more a category than a discipline itself, used to group together activities and works that deal with particular aspects of each service industry. The sub-categorization follows basically the structure proposed by the NAICS 07 industry classification system [1]. We considered all the double-digit level headings, and excluded those headings which were not related to services industries such as agriculture, manufacturing, and construction.

The sub-categories listed below refer to activities and works related to the industry described under each heading:

H.1. The Service Industry
This sub-category comprehends activities and works that describe the service industry in terms of statistics, comparative studies with manufacturing and agriculture/extraction industries, and similar.

H.2. Utilities
NAICS 22: Industries that provide utility services such as electricity, heating, water and irrigation, sewage treatment, natural gas distribution, etc.

H.3. Wholesale Trade
NAICS 42: Services provided by merchant wholesalers for durable and nondurable goods and the wholesale electronic markets

H.4. Retail Trade
NAICS 44-45: Industries related to motor vehicles and parts, furniture, electronics, appliances, food and beverage, clothing, and general merchandise to name a few.

H.5. Transportation and Warehousing
NAICS 48-49: Industries associated with air, rail, water, truck, transit, and pipeline transportation, airports and harbors, postal and courier services, as well as warehousing and storage.

H.6. Information Services
NAICS 51: A broad sub-category which includes the publishing, motion picture and sound recording, broadcasting, and tele-communications industries.

H.7. Finance and Insurance
NAICS 52: Includes central, investment, and retail banks, the securities industry, insurance carriers, commodities and stock trading, funds, trusts, and other financial vehicles.

H.8. Real Estate and Rental
NAICS 53: Includes real state, rental and leasing services, and leasing of non-financial intangible assets (except copyrighted work).

H.9. Professional and Technical Services
NAICS 54: Professional, scientific, and technical services, including law, account, engineering, architectural, business and IT consulting, marketing, design, and public relations services. It does not include healthcare-related professional services such as medical offices.

H.10. Management Services
NAICS 55: Management of companies and enterprises as a service.

H.11. Administrative and Support Services
NAICS 56: Includes office administrative services, facility support, temporary help, call centers, collection agencies, travel support, private security and guard, landscaping, and waste management.

H.12. Educational Services
NAICS 61: Includes fundamental education, college and university-level institutions,

business and computer training services, professional and sports training, etc.

H.13. Health Care and Social Assistance
NAICS 62: Includes medical offices, ambulatory, hospitals, nursing homes, daycare child services, and social assistance services.

H.14. Arts, Entertainment, and Recreation
NAICS 71: Includes performing arts, spectator sports, museums, amusement parks, the gambling industry, marinas, golf courses, skiing and other recreation services.

H.15. Accommodation and Food Services
NAICS 72: Includes all types of hotels, camping parks, restaurants, caterers, and drinking places.

H.16. Public Administration Services
NAICS 92: Includes executive and legislative government support, environmental quality programs, justice, public order and safety, human resource development program, housing programs, space research and technology, and national security and international affairs

H.17. Other Service Industries
NAICS 81: Includes repair and maintenance, laundry, and religious and civic services.

4. Validation of the SS-DCS

To improve, expand, and validate the SS-DCS, we have taken two steps. First, we (and other researchers in the field) have extensively presented the SS-DCS to different audiences, especially during talks that introduce Service Science to people of varied backgrounds and knowledge about services. It has been our experience that, in most cases, the presentation of the SS-DCS significantly helps the understanding of what Service Science is and its scope.

Our second step was taken during the premier conference in Service Science, the Frontiers of Service Conference 2008, held in Maryland. During a slot assigned to present the SS-DCS, we distributed copies of the SS-DCS to the XX practitioners and researchers present at the talk, asking for an overall evaluation of the proposal as well as suggestions, improvements, and more specific references.

We got YY responses from the Frontiers of Service conversation with the academic community, and …. (description of the results).

Another way to validate the SS-DCS is to use it experimentally in a typical usage scenario. We plan to have the SS-DCS to be tested as the suggested keyword structure in conferences in the field, as a way to classify papers, assign reviewers, and determine sessions. We are currently exploring conferences interested in working with us.

5. Known Issues with the SS-DCS

Establishing a discipline classification system is always a work of compromise among different ways of organizing a complex structure into a tree-branched shape. There are a number of problems and shortcomings with the current proposal that although we are aware of, we have not been able to devise a better structure without running into other issues.

One of those issues is the right level and position for Information Technology Services (currently part of Service Engineering, C.12). We could see how, given the importance of the area in the present and future of services development, it is justifiable to have it elevated to the first-tier level. We struggled with this decision, but we found that having IT Services as a first-level discipline would give too much relevance to an area which is mostly a back-end tool for enabling services. Also, IT Services as a discipline seem to have few sub-disciplines which were specific to services.

Another issue in the same are was the decision to include or not Service Computing, as defined for example in [36]. Service Computing, in general, covers the science and technology that underlie business services, with a focus that mixes web-services and Service-Oriented Architecture (SOA) with issues related to business modeling (especially CBM [26]). Since web-services and SOA can be considered as mostly related to Computer Science, our choice was to list the computer-related stuff under the Computer Services heading (Service Engineering, C.11), and the services-specific part of business modeling under Service Sourcing (Service Management, D.9). Nevertheless, we still feel that somehow the increasing importance of Service Computing as the underlying foundation for the IT structure of service systems is still not adequately captured, and we are looking for alternatives.

We are still a little unsatisfied with the 2nd-tier headings of Service Management and Human Aspects of Services. In both cases, it still feels like the different

sub-disciplines listed are not at the same level and that possibly some important parts of the disciplines have been buried under inadequate headings. We are currently working to improve the sub-division of the two disciplines, and plan to ask for advice from experts in those areas.

Finally, many of our colleagues are often surprised for our definition and inclusion of Service Arts as a discipline of Service Science. We took here a clue from Computer Science, and the inspirational reference provided in the field by Computer Art, as the realm of pure, but highly introspective works with computers. However, we are still debating whether all performance arts are indeed service arts, and about the notion of traditional service arts.

6. Discussion and Future Work

We have presented and briefly discussed in this paper a proposal to establish a discipline classification system to Service Science, the SS-DCS. As mentioned before, the main of goal of this paper is to create a structure to jump-start the discussion among practitioners and researchers in Service Science to create such a classification, necessary in many planning and data collection activities.

Another important consequence of establishing a discipline classification system for Service Science is grounding the discussion on the scope of the discipline. As mentioned before, we have often found that presenting this listing to audience as being a better way to make them understand its true multi-disciplinary characteristic. The SS-DCS, as a definitional tool, may also help in providing clear actuation spaces for practitioners and researchers which come from other disciplines and need to understand whether, and where, how, and why, their work fits into Service Science.

We are planning to validate and refine the current proposal through different initiatives. To improve the classification, we plan to open the discussion to the community, and have the SS-DCS going through systematic iterations of presentation, response collection, and restructuring. To validate the classification as a tool, we are proposing its experimental use to conferences in the field, especially as a way to identify missing sub-disciplines.

Finally, we believe the proposed SS-DCS already captures reasonably well the fast-growing discipline of Service Science, and its most natural sub-disciplines. Nevertheless, we are open to radical changes in the SS-DCS, including the elimination of disciplines or re-classification according to other guidelines. Ultimately, our goal is to really reflect the views of the community about what Service Science is and which its main disciplines are.

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