Preface

The area of services (e-services, Internet or Web services, etc.) becomes more and more populated with literature of almost all types. Several prestigious business, IT and computer science publications signified the momentum by dedicating special issue promoting terms such as “Services Science”.

This book aspires to shed light on the phenomenon of services from different perspectives, thus linking several matters that we tend to think as of belonging to different disciplines though there is a unifying element in all of them. It is in this respect that the aim of the book is to provide food for thought and inspire different audiences spanning from the business analyst or key decision maker in an organization operating within a structured corporate environment to the independent free lance IT consultant that needs a companion to formulate questions that are not to be found in any conventional e-service programming manual or reference title.

Services both as a science and as a practice in today’s corporate environments are seriously suffering from many different suboptimalities. Some of these suboptimalities are structural (lack of a coherent framework to apply the service), other metaphysical (lack of a supporting culture that would increase the demand and strengthen the market for the service) or of transcendal (lack of capacities in the humans that are implementing the services to the customers) and ephemeral nature (lack of an appropriate technology to support the service idiosyncracies – can you imagine amazon.com without any Internet?). For some others a framework that would comprise both organisational and technology aspects could be an answer to certain pitfalls and shortcomings currently faced.

As we today live in a “post manufacturing” world, we all face an important challenge in establishing lasting changes of culture and values in our organisations – even the ones that we are simple customers or consumers of their services. This makes it a must that organized learning processes are anchored within the organisation either for the design of a new service, or for the improvement of existing and operational ones.
Traditional service management courses and training are considered suboptimal as it often seems that the long-term effect is missing. Furthermore, traditional courses are often used by the organisations to train their employees so they can perform better, but in the same ways as they always have done.

There are several positive aspects to both approaches, but if the goal of the learning is to gain new knowledge about a service and to establish changes in service-related behaviour as well as further learning in the service-based organisation, it is important to use a strategy based on service-related theories and methods that take individual as well as organizational aspects into consideration.

There is a saying: ‘have hammers, will see only nails’, just because you have a hammer in your hand. In the greater scheme of things, corporate service practicing includes more than scientific approaches and methods.

Hence, the results (observations, conclusions and theories) of one scientific discipline cannot be intelligently applied or implemented in disregard of other scientific theory. The scientific communities have organised themselves in disciplines (e.g. economics, computer science, business administration, law, etc.). These might in turn be organised – or thought of – as some ‘blocks’ of sciences such as natural science, social science, human science etc. This internal organisation is especially visible in the academic community.

There, a holistic understanding of service science as such runs the risk of being overlooked. This risk appears despite that theory of service science may be part of the academic training in each of the disciplines. A student may learn about the very specifics of service theories and approaches developed, approved of, or otherwise adopted in the discipline he or she studies. When making the transition to the job market, the student then needs to develop into an intra-disciplinary service practitioner.

This is an example of intra-disciplinary approach, which should be carefully distinguished from inter-disciplinary approaches. We could also say that intra-disciplinary approaches, including the theory and methods implied, constitute the service toolbox that we equip the readers of the proposed book with.

My own experience working in the service industry dates back to the beginning of 1990. I have been closely involved with a wide range of different organisations in the research, the business software and the IT consultancy in general, and different types and levels of service practicing styles and cultures. In all these settings, I have been exposed to different learning strategies based on problem-based and project-organised approaches, and have experienced that they provided quite another learning outcome. I consider such a service-centred approach an effective and motivating way to organise the kind of processes and practices needed in today’s turbulent environment.
For a book to attain the recognition of academics, researchers and practitioners as a useful primer in the field of services and e-services, similar to what *The Mythical Manmonth* did in the area of software engineering (and) project management several years before is an extremely ambitious goal. Especially nowadays that the shelf time for a book or similarly the Web-shop window of opportunity is extremely short, there is no time left to look back.

I firmly believe that the market does need a book on this topic and this book has been planned to cover lots of topics. What I also know (and now much better than when starting the project) is that a book of this kind is extremely difficult to write. So independently of the individual views of the readers, my intention was to help open an era in the market for similar books that shall treat the addressed subject of services and e-services in a holistic way and not only from a technical or managerial standpoint.

We all at least experience how a variety of problems and shortcomings of our service-based economy affects our lives, our careers and our beings by means of analyzing situations and presenting modern practices that can improve the way researchers, field practitioners and ICT professionals account for their core business service-related activities and improve their service design, management and optimization skills. To achieve this, throughout the book we present a mixture of position and concept themes followed by case study and application-oriented experiences. The aim is to provide a holistic view to the reader and most importantly open the door to novel practical implementations.

The book is expected to be used by academics, researchers and students possibly to support an introductory course on services or e-Services, or to complement needs for bibliography in the field of e-commerce applications and systems or CRM applications and systems.

As much of the content included in the two aforementioned areas (e-commerce and CRM) deals with services and e-services, the book may offer an interesting alternative to a plethora of similar and me-too books which fail to attract a critical mass of readers as well as in facing a second edition.

Except from the academic audience that this book aims to address (my experiences in recruiting people from academia in my Division and my many years involvement in European research projects have convinced me that the students are not given a holistic perspective on what they learn in their schools), it also aims to address audience from the computer applications industry, software engineers, IT and business consultants, accountants, technology solution providers, (e-)service developers, enterprise managers and decision makers (including top level managers). In this respect the book may facilitate its use as a guide for ICT professionals from academia, research institutions and industry, providing them with a broader perspective of how to improve their service creation, production and management assets.
As it will become obvious from the structure of the book chapters, the reader is helped to develop a holistic understanding of the service field that is currently lacking both in the academia and the industry. Service ethics or the culture that a particular service may foster is not independent on the functionality offered or the user interface provided to its users and the overall interactivity provided to the customers. Additionally, the reader will benefit from real world analyses and insight to success and failure stories while also analogies will be drawn that could help both academic and industry readers to find a utility path that will work for each reader individually.

**ORGANISATION OF THE BOOK**

It is time to go briefly through the contents of each chapter. Though many things changed several times during the planning and the writing of this book, I demonstrated all my stubbornness that people who live with me (like my wife) or work with me (like my colleagues at ALTEC Research Division) tell not to change the set or the sequence of the chapters.

**Chapter 1: Service Science and Practice**

This introductory chapter aims to make clear the holistic nature of services to our lives linking the science part to the practice matters. Bringing examples for service successes and failures, this chapter shall help the reader position him or herself with the field under examination. We present and discuss the collaborative approach towards service design and the contextualisation of services as leverage for attaining competitive advantage. Critical factors are listed that concern relationship management in business service contexts and which are considered in terms of the collaboration dimension. The chapter closes with an examination of power dependencies and trust in collaborative service arrangements.

**Chapter 2: About the Nature of Services**

Here we elaborate on the intangible nature of services – and how it materializes to tangible commodities and results. The aim of this chapter is to increase the awareness of the reader regarding the complexities related to even simple forms of services that we regard as trivial.

Five propositions are presented upon which the proposed service development framework and the underlying processes are built; all five of them are also related with corresponding problem areas in the real world and the markets. Two sections
are devoted respectively to the nowadays more increasingly and intensively faced step changes in the conceptualisation of services and the e-services iceberg.

**Chapter 3: Typology of services**

Classes and taxonomies of services – how can they be categorized, with respect to different parameters, factors, dimensions. Why some of them matter and some other don’t? How can they be organized to serve specific purposes, etc. The major part of the chapter is justly devoted to the presentation of the Service Analysis Model (SAM).

With its four constituent building blocks, SAM provides an insight to the analysis of services and is followed by a section devoted to the synthesis of service and the composition of new ones. The chapter closes with the presentation of a real test case implemented for a manufacturing company to improve their service supply chain.

**Chapter 4: Services and the Humans**

We examine the various aspects of influence and impact that services have on the humans and vice versa. How an interactive space is created to link both entities – and most importantly – how humans interact with each other through services of all kinds.

We examine the starting points of a real world service design and implementation case that is representative of the difficulties that one faces when trying to make practice out of theory. Designing a service that would help people offer and get a better service in the European technology transfer domain is the starting point.

We continue examining the users and their particular needs, then looking inside the service mediation process and the various user service scenarios. And conclude with a description of system deployment issues.

**Chapter 5: Services and the Computers**

In symmetry with Chapter 4, here the core subject in this Chapter is the relationships between services and their implementations in computer applications and information systems. Again, the interactive space is examined that is created to link both entities – and most importantly – how computers interact to each other through services.

A theoretical part of the service development framework is presented related with Information Supply Chains and is followed by an implemented test case for a manufacturing enterprise. Important part is devoted to practical concerns like
configurability of a service in other or new contexts and de novo construction of a service supply chain.

**Chapter 6: Services and the Workplace**

How our workplaces are formed and shaped with respect to our conceptualization and understanding of services? How organisations can be characterized, affected and marked through their idea of services?

Workplaces are considered as open learning factory – open to the communities they belong to, to the markets they operate for and to the employees, customers and contractors of all types they interact with. How can all the new learning items be capitalised and transformed into knowledge assets for the companies and the employees? How can the use of a Learning Assets Management system like the CARAMBOLA concept we present be used for improvement of all aspects of service planning, implementation and operation?

**Chapter 7: Service Economics**

Here we examine the economies of services as well as matters related to service economics. Do the same or similar laws that drive the other fields of the non-services economy also govern the service-based economy as well? How can wealth matters be addressed in the services field with application of well-know economics patterns?

An improved accounting method for project management accounting is presented based on the idea of value centres next to the well-known concepts of cost centres and profit centres. The method can be of direct use for value based management purposes that is of central importance for all service-related activities (improvement / optimisation, planning, deployment, etc.).

**Chapter 8: Service Physics**

When aiming towards user-centred service design, a core issue to the design of “ergonomically correct” service interfaces is their appropriateness with respect to the particular human user behaviour attributes, as they evolve during the utilisation of an interactive service and its constituent applications.

The exploitation of human behaviour aspects in the service interaction techniques design process is of significant interest and is presented in this Chapter. Though it has been tempting to synthesize many of the presented service design guidelines we prefer to adopt a laundry list-like approach as the materialisation of a service interface design technique heavily depends on a plethora of parameters. In many cases, for the same audience a service implementation needs to be differentiated
Chapter 9: Service Metaphysics

Transcendal matters of services: communities of users, service idealism, theological and existentialist perspectives on services – this chapter (in contrast to the previous one) is the most philosophical part of the entire book though it is of straight utility for its linkage to many service business and management topics. Furthermore, in this Chapter we present a methodology (PACE) that helps for the valuation of intangible assets like (what else?) services.

PACE is presented with practical examples and contextually linked with project and other service related activities. Services unequivocally constitute an area where increasing interest of experts from the areas of intellectual capital management and valuation will be concentrated, as they on their own possess qualities and characteristics of intangible assets because of their immaterial nature.

Chapter 10: Culture of Services

How do all different types of services affect the reality and routine of the service consumer / user? What cultural effects can we recognize to the community or the individuals? What are the cultural aspects of any newly introduced service? And how these can positively or negatively affect the society at large?

In this chapter we present results of a research exercise related with the building of services for a collaborative community environment for experiential learning in medical emergencies. Extensive use of the Living Labs methodology has been made and is reported and related with the presented framework. The final part of this chapter is devoted to configuration aspects of the collaborative service environment.

Chapter 11: Future of Services

The dominance of services in our world and the challenges that the society and the individuals are facing. About the emergence of the Service Science as an independent discipline that will be taught, studied, researched and applied. Formulation of the scientific foundations of a Service Science.

Spirituality and transcendental elements in the service discipline. Novel concepts and knowledge areas: service terrorism, service anarchy, service activism, service tyrannies. The role of history and arts and the inrush of humanities in the service domain.