
therefore designers strive to impart a sensual, and ultimately emotional, charge to products. The exciting and flattering form of a pair of glasses, the velvety surface of a pen, or the rich sound of a car door closing often turns these everyday objects into objects of desire.

This requires, however, that the object's messages are communicated to the consumer as subject. Neuroscientists like Francisco J. Varela and Gerhard Roth have shown that human (→) perception is a immensely complex process of (→) construction by the brain. When we construct sensuality, we determine which of the many thousands of sense impressions find their way into our individual reality. This also determines the intersection that will result from the sense perception of consumers and designers. When a designer creates a product he or she considers sensual and sensible or of high quality and durability, it does not by any means guarantee that the product will find a buyer. Success or failure depends on the realities of designers, producers, and consumers corresponding. ^{MG I}

→ *Food Design, Synesthetic, Value*

SERVICE DESIGN

The economic basis of Western industrial nations has changed dramatically in the last three decades from manufacturing to the provision of (→) information and services. Services now typically represent between sixty and seventy percent of the gross domestic product of developed nations and almost all new companies being founded and jobs created are in this so-called tertiary sector.

New challenges have emerged as this once minor sector has expanded rapidly. In the past, manufacturing was the main source of investment in research and development. This meant that research and development concentrated on the optimization of the means and processes of production and the invention of products; and investments in (→) market research and product design were taken for granted (→ *Product Development*). By contrast, no objective methods were established for the development, research, and creation of services. Moreover, marketing of services was first identified and addressed as an independent topic in the United States in the 1970s, and service design did not exist as a concept until the early 1990s.

Under pressure from a rapidly changing market, however, there have now been noteworthy developments. While service engineering is still trying to establish itself as a discipline at universities and in practice, service management is no longer unusual as a path of study in business administration courses. Service marketing has established itself internationally, and service design, mocked when first introduced as an academic field in

design (→) education at the beginning of the 1990s, now has credibility in teaching, research, and practice around the world. What exactly is service design? Service design addresses the functionality and form of services from the perspective of clients. It aims to ensure that service interfaces are useful, usable, and desirable from the client's point of view and effective, efficient, and distinctive from the supplier's point of view.

Service designers visualize, formulate, and choreograph solutions to problems that do not necessarily exist today; they observe and interpret requirements and behavioral patterns and transform them into possible future services. This process applies explorative, generative, and evaluative design approaches, and the restructuring of existing services is as much a challenge in service design as the development of innovative new services. When seen from this angle, service design stands in the tradition of product and interface design, enabling the transfer of proven analytical and creative (→) design methods to the world of service provision. In particular, there are close ties to the dimensions of interaction and experience that originated in (→) interface design. Even if these fields of study are still primarily oriented around designing human-machine interfaces, parallels have emerged in theoretical and methodological development, in the search for factors to be noted and influenced when designing an experience, though experience cannot really be designed, only the conditions that lead to experience.

The development of a formal language for services is one of the exciting new fields in development and practice, because a formal language of services just might become the basis for systematically creating conditions that would make it possible to design the experiences of services. A formal language for services empowers service designers to create interactions, spaces, and processes on the basis of a solid knowledge of causal relationships.

The use-oriented approach that came to the fore in interaction design in the 1990s and channeled creativity in the development of methods such as (→) persona creation is one of the approaches refined and rigorously applied in the creation of human-human and human-artifact interactions in service design. Taking the perspective of clients as the starting point reverses many customary approaches by service companies and raises questions about truly innovative and user-centered, flexible, and dynamic organizational structures and processes.

The understanding of product-service elements that has since become well established in service provision research has been an especially important factor in giving the interdisciplinary (→) networking of competencies (which is, in itself, characteristic of

design processes) a central role in the service sector. There is still debate about whether service design is primarily about the simultaneous definition of virtual and material aspects of the service, the coordination of human-human and human-machine interfaces, or the design of experiences where functionality and emotionality are equally accounted for in the (→) integration of new technologies for intelligent and client-oriented standardization. This debate can ultimately only be resolved by interdisciplinary design teams (→ *Collaborative Design*).

On the one hand, service design can make use of theoretical and methodological competencies in established design capabilities; on the other, it opens up new questions. Can service-specific methods—for example blueprinting that was developed in service marketing—be further developed and optimized as a creative tool? The creation of service (→) blueprints was certainly an important first step in making virtual services an actual and visible object of design. Nonetheless, this method remained very much anchored in the presentation of processes in the form of flow diagrams and left open the question of how the emotional dimension of client interaction with these processes could be integrated systematically into the design process.

That question led to the development of the client journey as a schema by which service design can capture and illustrate the complete process of a service with its emotional, material and procedural components from a client's perspective—thus making it possible to model it (→ *Scenario Planning*).

“Touch points” are essential to understanding the client journey. The analysis of existing services examines whether touch points are correctly positioned. Is the concrete, visual, olfactory, acoustic, and tactile evidence suitable for making the service comprehensible and able to be experienced by clients? Hence the development of service evidence is an autonomous focus in service design concerned with making it possible to observe the virtual and assign dimensions to it.

All approaches to (→) redesign and to the innovation of services are extremely well served by design competencies in prototyping (→ *Prototype*), because service prototypes are vital aids in the whole process of developing ideas and making decisions. (→) Storyboards illustrate the newly created service process from the perspective of the clients and help to visualize the full observation of scripts, roles, scenery, and props. With little effort, mock-ups can clarify where design interventions are possible in service provision. Service enacting—role-playing service interactions—is a method for designing services that amounts to a new form of (→) rapid prototyping: acting out service situations

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SET DESIGN

very quickly clarifies the direction the service design process should take.

The performing arts are one field being explored by current service design research projects to tap into their potential for concept transfer and provide inspiration for innovative forms of organization, notation, and communication. Perceptions and procedures derived from the performing arts have proved useful when embarking on the service design process. Hence the metaphor of front and back stage is a very helpful model for creativity, because it reveals the necessity for a comprehensive view of the whole system and the necessity to cast processes, locations, props, and actors from one mold. Storyboarding provides a comprehensive system for thinking about and visualizing the procedural narrative structure from the perspective of clients. There may be many more such impulses concealed within the theatrical process of ideas to (→) performance that would be valuable and fruitful for the autonomous design of services.

Service design is a rapidly growing field that has since been given a thorough theoretical and methodological basis and has established itself internationally in research, teaching, and consulting. However, it is still a very young discipline that contains many exciting, undiscovered lines of research and continues to invite us to explore the unknown and pursue exciting experiments. ^{BM I}

→ *Event Design*

Set design is the creation of the physical space in which the action of a performed event takes place. Primarily used to describe theater productions, it constitutes all the scenery, furniture, props, appearance, and overall look of the stage. Set design is also known as scenic design, theater design, theatrical design, and stage design. Although these terms are used interchangeably in most instances, set design or scenic design have become more popular in current terminology because they can be applied to television and film as well as theater. A related and more recent term, scenography, encompasses the sound, costume, lighting, and all other technical designs of a theatrical production. Production design is the term used for the comparable craft in cinema or television (→ *Broadcast Design*).

It should be noted that the definitions of the various terms above vary to some extent from country to country based on the degree to which production functions are specialized. For example, in the United States, set designers work in collaboration with a team of other designers including projection, costume, light, and sound designers. This is not the case in other countries, particularly in Europe, where a single designer is often