Service Engineering - Servicification on Products -

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As our economy matures, manufacturers are required to supply more services in addition to just material products to customers recently. Service is attracting more and more attention as manufactures are shifting from “product sellers” toward “service providers.” Tertiary industry (e.g. broad-defined service industry) nowadays accounts about 70 % of GDP and employment in Japan. To serve this need, research on service started in various fields recently. We have been doing research on Service Engineering since 2002 with RACE (Research into Artifact, Center for Engineering) and Shimomura Lab. of Tokyo Metropolitan University.

Service Engineering aims at not only increasing productivity in service industry but also adding much value to products of manufacturing industry. Services have traditionally been studied as part of the marketing and management fields. These studies emphasize intangibility and simultaneity of services, starting from comparison with products. On the other hand, Service Engineering deals with services as well as products, because services can be regarded as artifacts too. Therefore, Service Engineering is a new discipline that designs the relationships between artifacts and human / society, and considers comprehensive value provided by artifacts.

Out research domain is divided into three parts: represent services; analyze and evaluate services; and design services (Fig.1). We research into engineering methods that deal with characteristics of service (i.e. customer value, subjectivity, intangibility, and simultaneity) by utilizing conventional engineering knowledge. “Service CAD”, which supports designers to design service on computer, has been developed by integrating our research achievements. Using Service CAD, designers can effectively do the following things: visualize and improve existing services; design a new service; and add high value to product.

Keywords: Service Engineering, Product Design, Service Design, Service CAD

References

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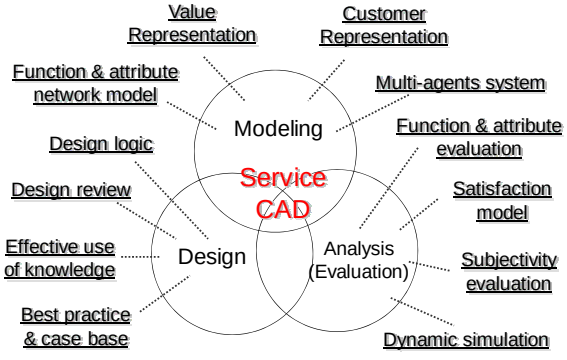

Fig. 1 Research domain of service Engineering

Table 1 Examples of servicification on products

Method	Detail	Case Example
Share product	Social sharing	Taxi, car sharing, theater
	Rental / Lease	Rental car, coin laundry, rental home appliance, rental consutruction machine, Internet Café
Maintain lifetime value	Maintenance	Elevator, copy machine, car, air conditioner cleaning , washing machine cleaning
	Contents	Cellphone, home-use game machine
	Function sale	Single use camera, personal computer, cleaning robot