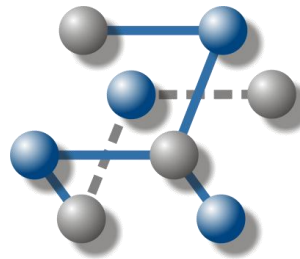


SYSTEMISING SERVICE CLASSIFICATIONS

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Outline

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1. Motivation to systemise classifications

- Increasing importance of services
 - One of the main drivers for economic growth
- Efficient provision / optimisation is necessary
- Challenge: heterogeneity of the service sector
 - Universal approaches do not exist

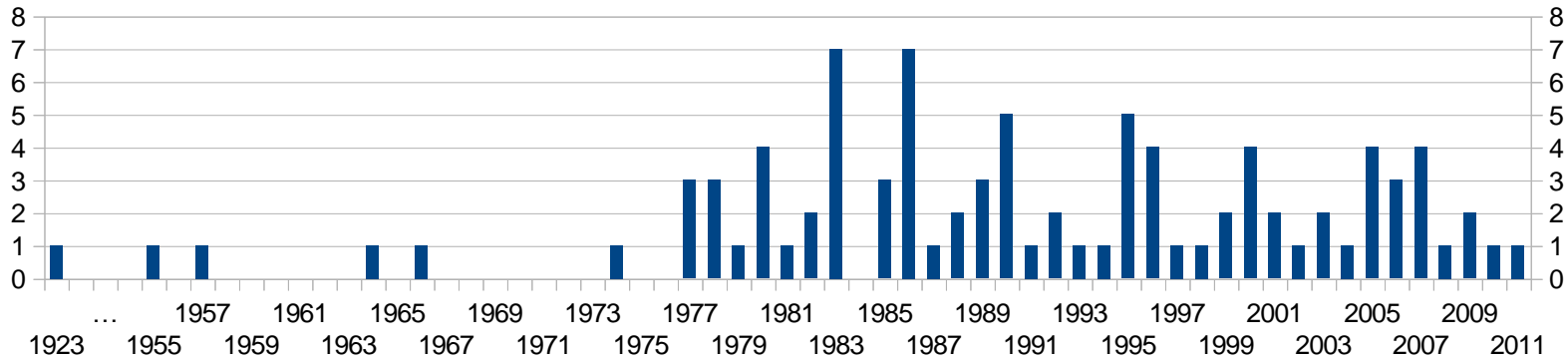
- Classifications structure the field
 - Establish order in the research area
 - Manage complexity by specifying common characteristics
 - Support development of specific activities
- Plethora of classifications exists
 - Reasons: heterogeneity; lack of common, scientifically justified service definition

Sources: Maglio et al. 2006, Cook et al. 1999, Spohrer et al. 2007

2. Our approach

- Analyse classifications
 - Literature review
- Structure classifications
 - Based on used characteristics
- Develop theoretical framework
 - Foundation for new classifications targeting specific goals

3. Literature review



- Starting points: Cook et al. 1999, Evanschitzky 2003, Hagenhoff 2003, Mersha 1990
 - Reference a wide variety of classification approaches
 - Dealing with original work was necessary for comprehension
- Further approaches were identified using common academic work directories
- Total: 92 classification approaches, 81 were analysed spanning from 1923 until 2011, 11 were not available any more

4.1. Service characteristics – the big picture

Customer interface	#	Process	#	Outcome	#	Miscellaneous	#
Customer contact	32	Complexity	3	Variety	2	Goal incongruence	1
Customer interface	3	Workload	5	Materiality	14	performance ambiguity	1
Demand variety	1	Degree of routine work	4	Customisability	12	competitions stage	1
Relation customer, provider	5	Flexibility	8	Demand fluctuation	1		
Information asymmetry	4	Technology usage	5	Durability	3		
Participation willingness	2	Decoupling	3	Reversibility	1		
Customer type	2	Reaction time on fluctuating demands	1	Recipient: people, things, information	11		
Intended importance	2	Ability to digitise	1	Recipient: time, location	1		
Time and work investment	1	Expenditure of time	1	Recipient: physical, mental	1		
Concurrent demands	2	Provision frequency	1	Service distinctness	1		
		Capital intensity	1				
		Knowledge intensity	1				
		Continuous vs. discrete provision	1				

4.2. Service characteristics - types

- Characteristics of the customer interface
 - Focussing interaction between customers and providers
 - Common in marketing-oriented classifications
 - Allow for analysing customer activities and decisions
- Process characteristics
 - Describing services from providers' viewpoint
 - Describe the service development and delivery process
 - Mostly not transparent to customers (exception: collaborative processes)
 - Great influence on local and temporal service constraints
- Outcome characteristics
 - Describing service results

5.1. Establishing new classifications – Basics

- Steps for classification establishment
 - Identify relevant characteristics
 - Analyse characteristic values for their usage in classifications
 - Establish classes and recommendations for actions
- Use case: modularisation
 - Research goal: analyse capabilities for modularising services
 - Development of a classification focussing modularisation abilities

5.1. Use case: modularisation

- Six relevant characteristics
- Two perspectives
 - Technical: without analysing side effects
 - Organisational: also focuses cost-benefit-ratio of modularisation
- Resulting in four groups
 - Organisational and technical unsuited
 - Organisational but not technical suited
 - Technical but not organisational suited
 - Organisational and technical suited

Characteristic	Values	
	Technical	Organisational
Variety / Customisability	Low ... high	Monolithically vs. well-defined customisation points
Variety of customer demands	Constant vs. diversified	
Provision frequency	Rarely ... often	Simple vs. complex, primary vs. secondary service
Complexity	Low ... high	Unclear responsibilities vs. well-defined interfaces and definable partial performances
Flexibility	Rigid processes vs. free choice	Unclear responsibilities vs. well-defined interfaces and definable partial performances
Standardisation	Not standardised vs. standardised	Standardisation vs. customisation

6. Conclusion and future research

- Based on characteristics several recommendations for action can be given
 - Focussing different goals: marketing strategies, increasing productivity, improving quality etc.
- Our contribution: improve service understanding by summing up existing classification
- Research is only an initial point for further research
 - Currently, manual identification of characteristics
 - Implications still hidden and scattered in literature
 - Automation is necessary
 - Based on service characteristics ontology
 - Automated deduction of recommendations based on service types
 - Support decision makers to gain further insights in services

Thanks for the attention

Literature

- Cook et al. 1999: Service Typologies: A state of the art survey.
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