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# From product to service design: A thinking paradigm shift

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# FROM PRODUCT TO SERVICE DESIGN: A THINKING PARADIGM SHIFT

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GOODS-CENTRED  
Dominant logic (GDL)

SERVICE-CENTRED  
Dominant logic (SDL)

The economy has moved from traditional  
GOODS-CENTRED dominant logic (GDL)  
to emerging SERVICE-CENTRED dominant  
logic (SDL)

(Vargo & Lusch, 2004)

The primary UNIT of EXCHANGE has move from goods to service, Service is DEFINED as specialised competences such as KNOWLEDGE and SKILLS that people can acquire and exchange.

(Vargo & Lusch, 2004)

The ROLE of GOODS has transformed as well from being mere end products to goods that are INTERMEDIATE 'products' being use by customers/users in VALUE-CREATION processes.

(Vargo & Lusch, 2004)

The ROLE of the USER has moved from being the recipient of the goods produced, to being the CO-PRODUCER of the service.

(Vargo & Lusch, 2004)

Whoever determines the meaning of VALUE has changed from the producer to the consumer, producers can only make value PROPOSITIONS.

(Vargo & Lusch, 2004)

Furthermore, perception of where value is situated has moved from being embedded in the resources (goods), to be determined by customers as 'VALUE IN USE'.

(Vargo & Lusch, 2004)



There is a fundamental transformation in the design world taking place, manifested in a thinking paradigm shift from problem solving (designing products) towards system thinking (designing services)

**ISSUE IN QUESTION**

Review on design literature to identify the concepts of system thinking and problem solving within the context of design.

A series of semi structured interviews made to designers working on five design consultancies that have moved from product design towards services design

## APPROACH

“Step –by-step model of the design process  
With its too distinct phases: an analytical  
Step of *problem definition*, followed by a  
Synthetic sequence of *problem solution*”

Johansson-Skoldberg et al (2013)

(Jonas, 1996) suggests that the problem solving approach utilised in design is based on the assumption that problems can be well defined and solved if this is based on a good knowledge of people’s needs and desires. The problem solving approach assumes the designer’s ability to know what is “good for people”. He argues that this model comes from the “design methods movement” underpinned on cybernetic thinking from the 60’s and 70’s. Jonas explains how problem solving approach is becoming less central in design, as designers have to deal with issues that are complex, fussy, non-predictable and pluralistic in values. He describes them as “ill-defined” problems, arguing for the need of design tools for “the description and analysis of complex problem fields “.

## **Analysis-Synthesis Problem definition-problem solution**

Johansson-Skoldberg et al (2013)

**Problems can be  
well defined and solved  
if based on  
a good knowledge of people’s  
Needs and desires.**

**Designers are able to know  
“what is good for people”**

Jonas (1996)

# PROBLEM SOLVING

(Jonas, 1996) suggests that the problem solving approach utilised in design is based on the assumption that problems can be well defined and solved if this is based on a good knowledge of people's needs and desires. The problem solving approach assumes the designer's ability to know what is "good for people". He argues that this model comes from the "design methods movement" underpinned on cybernetic thinking from the 60's and 70's.

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**COMPLEX  
FUSSY  
NON-PREDICTABLE  
PLURALISTIC IN VALUES**

**"ILL DEFINED" PROBLEMS**

**Design tools for "the description and analysis of complex problem fields"**

Jonas (1996)

**PROBLEM SOLVING**

(Nelson & Stolterman, 2012) argue the existing of two distinctive scholar discourses around the idea of systems. They identifies systems from an epistemological stance when is an “embodied way of thinking” or from an ontological stance when system is “the thing that is thought about”.

The ontological stance refers to the “understanding of systems as “real things”” and is located within the confines of system science and the scientific method. The epistemological refers to a “systemic inquiry approach”, which focuses on a way of thinking that enables different fields of focused enquiry to be related to each other”.

This study takes the view of system thinking as a way of thinking and understanding phenomena.

## Epistemological stance

**“Systemic inquiry approach”**

**“A way of thinking that enables different fields of focused enquiry to be related to each other”**

Nelson & Stolterman (2012)

# SYSTEM THINKING

## System thinking paradigm

**It is a “world view” –  
seeing things holistically  
and interconnected”**

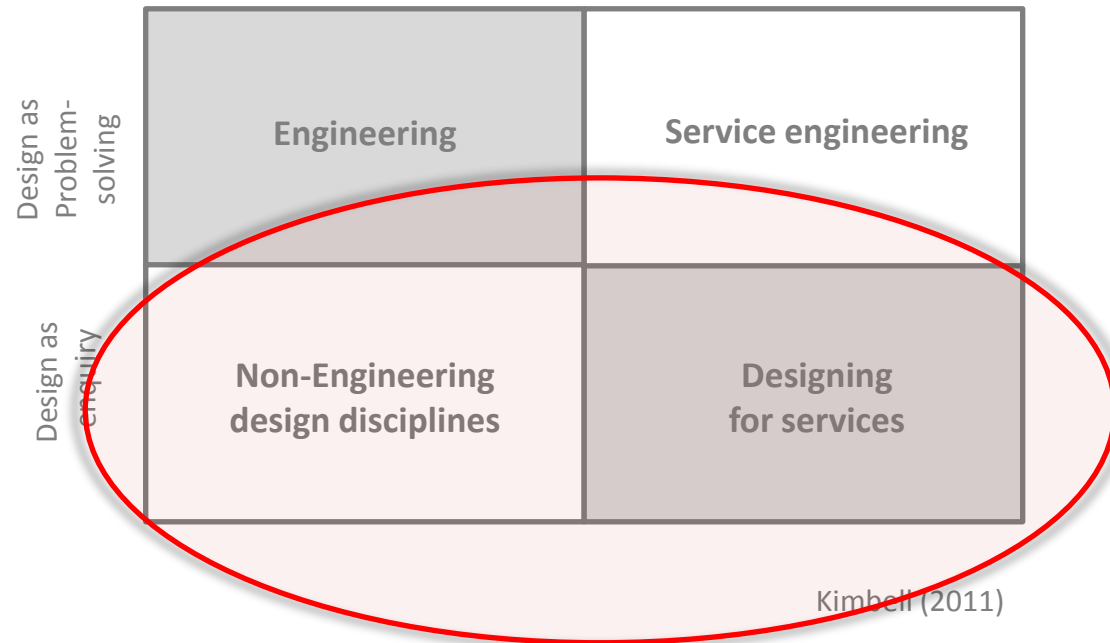
Maani & Maharaj (2002)

SYSTEM THINKING

## Ways of thinking about service

Distinction between goods and services are maintained

Service is the basic unit of economic exchange



Ways of thinking about design

# SERVICES DESIGN

“services are a complex and  
Multifaceted phenomena”

That encompass interrelated aspects:

Environment

Domain

Activities

Tools and Artefacts

Goals

Agents, Collaborations and Groups

Value(s) and Effectiveness

Wild (2007)

This suggests the need  
of a **system thinking**  
approach for the design of  
services and deals with the  
complexity of services.

SERVICES DESIGN



Co-founder

UK

live|work

Director, Co-Design

Australia



BOLD IDEAS. BETTER LIVES.  
THE AUSTRALIAN CENTRE FOR SOCIAL INNOVATION

Director, User Experience

UK



Co-founder and Director of Design

UK

THE GLASGOW  
SCHOOL OF ART

Nesta...



Founder/Director

Netherlands

EXCEPT  
INTEGRATED SUSTAINABILITY

# DESIGNERS

*Who the interviewees are?*



## CONCEPT

Understand interviewees' perceptions about the relevant concepts by which they might articulate their views. (On products, services, service design)

## SHIFT

Understand interviewees' perceptions on their (and the) shift from product design to services design (Drivers, Development, influences)

## DESIGN THINKING

Understand interviewees' perceptions about the potential changes in their design thinking and approach, particularly in relation to problem solving and system thinking. (In the context of the shift from designing products to designing services)

# INTERVIEWS- What we wanted to know?

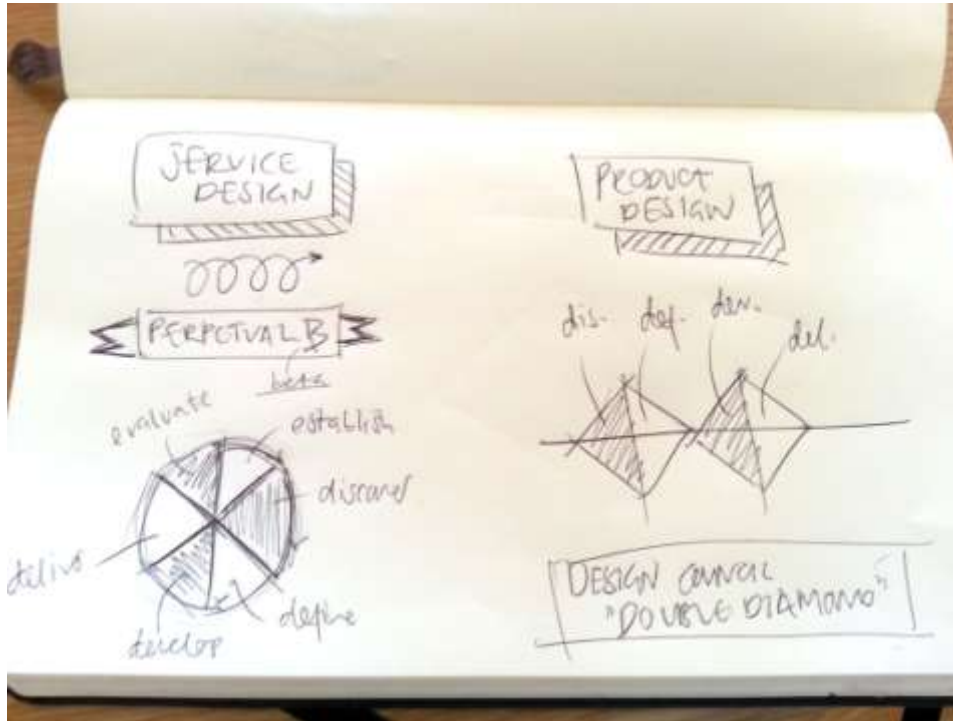
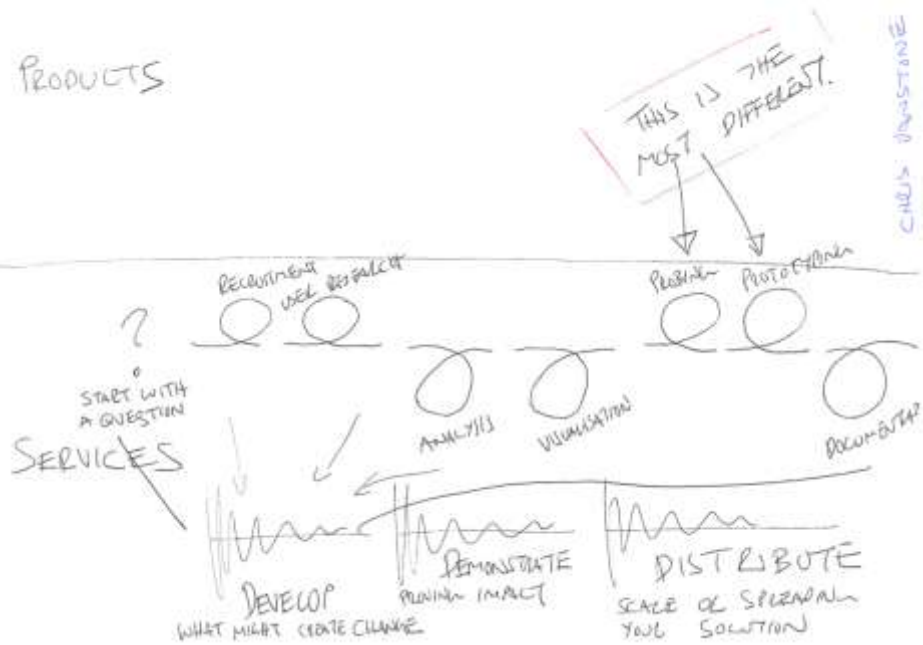
*1.1-Draw your design process for products and for services*

	PRODUCT	SERVICE
Interdependence	Can deliver services	Ecosystems that contain products
Complexity and number of interactions	Simpler and single interaction	More complex and multiple interaction
Movement Character	Static	Dynamic
Scope width	Narrower	Wider
Tangibility Physical character	Tangible	Intangible
Relationship with problems	Mean by which problems are resolved	
Relevance of differentiation	Irrelevant to customers/Relevant to design academics/thinkers	

# PRODUCT VS SERVICE

*1-What is the difference between a product and a service?*

PRODUCTS



# DESIGNING A PRODUCT VS DESIGNING A SERVICE

1.1-Draw your design process for products and for services

	Designing a Product	Designing a Service
<b>Craft and Technique</b>	related to "manufactured" character of products	related to organisational change and "back-end systems"
<b>Complexity</b>	Simple process	Complex process
<b>Prototyping</b>	Models, renders, mock-ups, etc	Scaled down services (Pilot)
<b>Constrains/deliverables</b>	Defined set of constrains	Broader set of deliverables
<b>steps/length/end point</b>	Fewer/shorter/final design spec	More/longer/implementation-running-beta

# DESIGNING A PRODUCT VS DESIGNING A SERVICE

*2- How different is to design a product than a service?*

<b>Designers approach</b>	Focus on Experience
	Understanding the importance of user insights
	Seeking to improve products by enabling user involvement in service-like systems
<b>Government agenda</b>	Increasing interest of government in developing innovative ways of approaching social issues
	Increasing interest of government in improving processes of civil participation (Voting, Citizenship ceremonies, etc.)
<b>Transferable design tools</b>	Transferability of design methods from design consultancy to other contexts such as government, organizations and charities.
<b>Development of new Design professional areas</b>	Development and cross over of other design fields such as web development and interaction design.

## WHY SERVICE DESIGN?

3- *When did you start to design services and why? (What was the first service design project you did?)*

	CV	SD	CV	TR	CD
<b>Attitude</b>	naïve view empathy				Empathy
<b>Interpersonal</b>		Confidence to deal with others	Enable conversation		
<b>Research</b>	questioning		User research skills Ethnography		Ethnography
<b>Communication</b>	drawing scenario building story telling quick prototyping	visual communication	Service prototyping		
<b>Participatory design</b>		Co-creation ability	Co-design Face to face design		
<b>Aesthetics</b>	sense of making things beautiful				
<b>Business related</b>			business modelling/innovation	Business planning and management	Business
<b>Thinking</b>		Deal with complexity	Segmentation Analytical skills	<b>Complex system thinking</b> <b>System thinking</b> <b>System mapping</b> Value flows Understanding patterns	Being able to interpret customers
<b>Knowledge</b>			programme theory and logic	Sociology	Interaction project management
<b>Interdisciplinary</b>					Interdisciplinary

# DESIGN SKILLS FOR DESIGNING SERVICES

*4-What design skills have you developed to design services?*



Environmental  
awareness

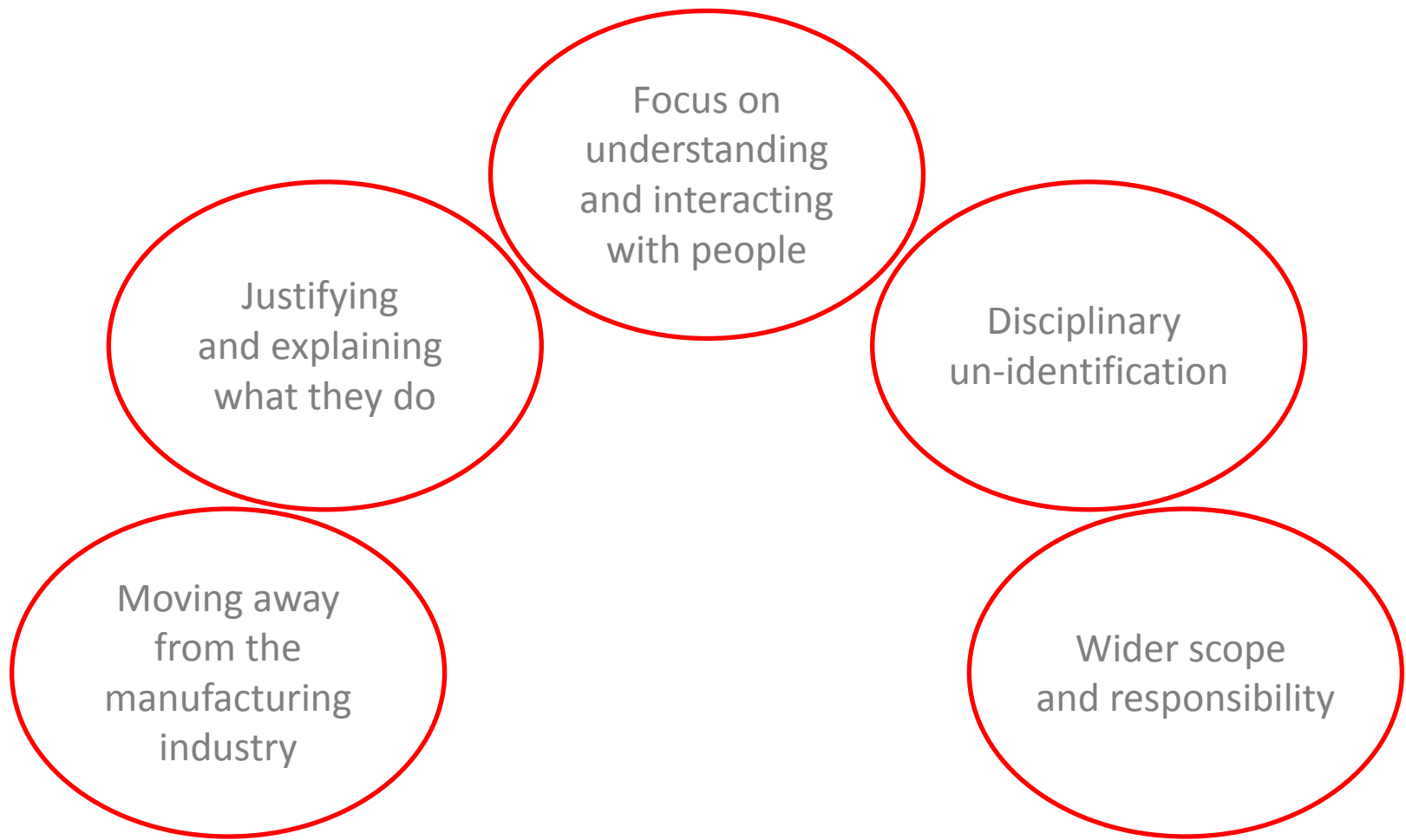
Networking  
technology,  
IT and Internet  
development

Trend in social/government  
environments towards  
user/citizen centeredness

Start-ups Phenomena

## PRODUCT TO SERVICE Influences

*5-There has been a shift from product to services design. What has influenced this shift?*



## DESIGN PRACTICE CHANGE

*6-How the professional practice has changed with the design of services? (Has the nature of your work changed?)*

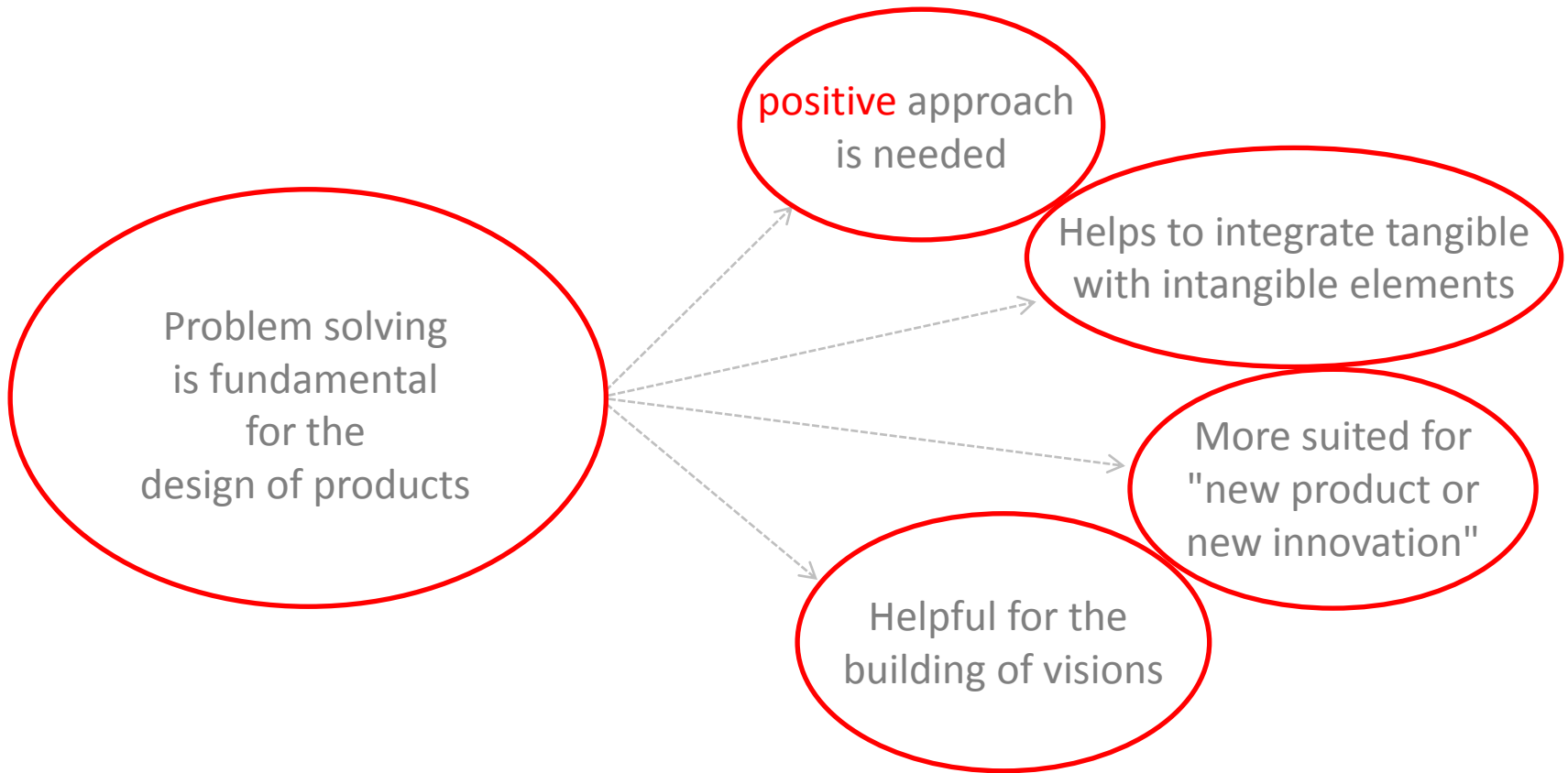
	Product				
	CG	SD	CV	TR	CD
Function	Function				
Aesthetics		Detail	Style		
Interaction	Interaction/feature		Interactions		
Form	Form		Form		
Object		Object			Artefact
Materiality		Material			Material
Manufacture	Manufacturing	Manufacture			
Consumption					Consumption
<b>User</b>	People		market		user-needs
Ownership					Ownership
Competition			Competition		

	Service				
	CG	SD	CV	TR*	CD
Centre of activity	Value/Proposition				Data
<b>User</b>	Person/context		Face to Face		User Cap./Access
Network	Touch-Points/Eco-system	Eco-system		Full spectrum	Network
Description	Journey/design Vision	Umbrella			
Organisation		Organisation			
Business Models			Business Models	Bottom up/Top-down	
System	Architecture of delivery	Holistic		Systemic	
Multidisciplinary				Multidisciplinary	
Task/output		Delivery	Change/roles/Scenes		Contribution
Process				Iterative	

*\*Same for product*

# THINKING PRODUCT/THINKING SERVICE

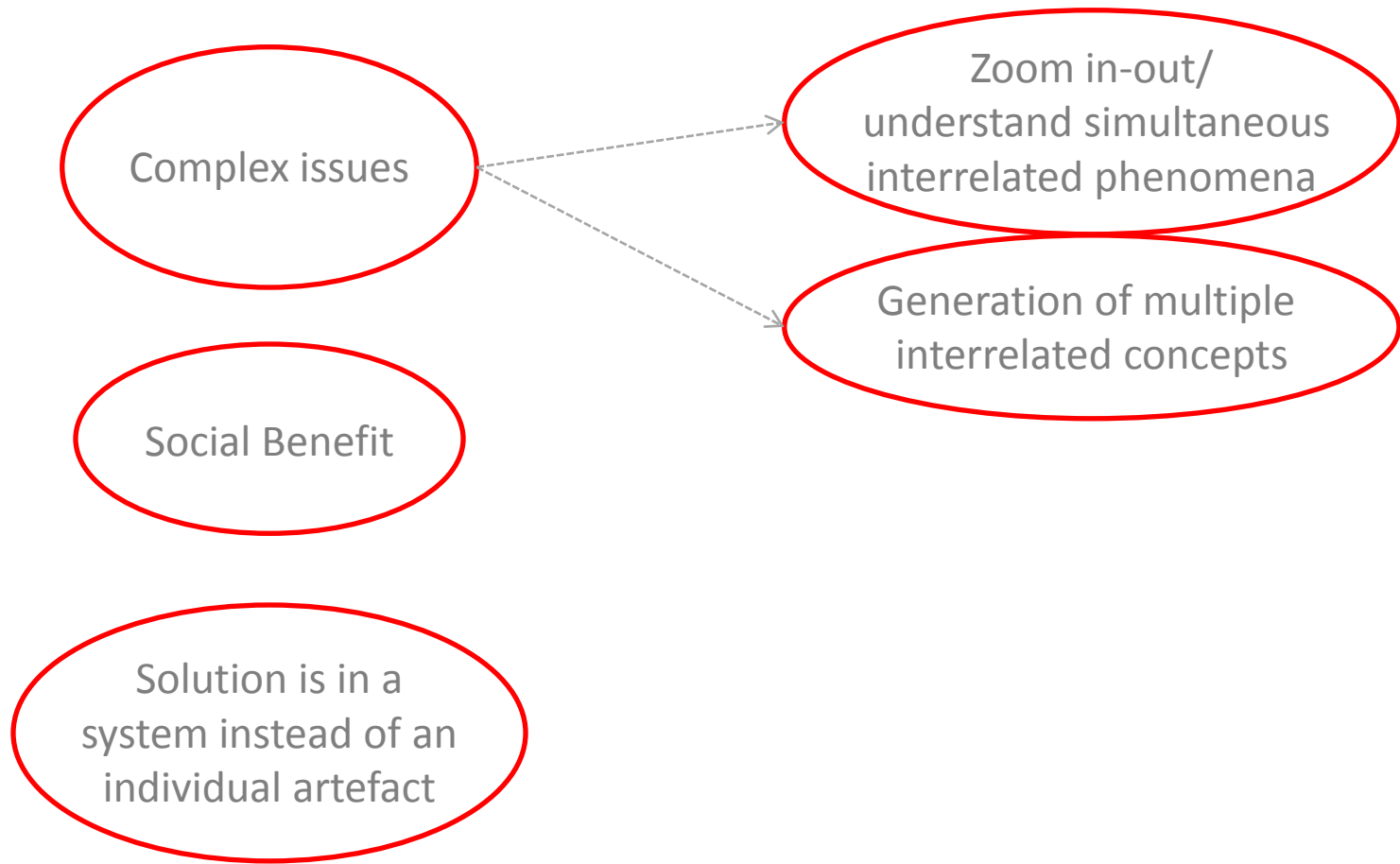
*7- Would you be able to write 5 words to explain your design thinking when designing products and when designing services?*



It seems also useful for the design of services

# PROBLEM SOLVING - DESIGNING PRODUCTS

*8- Problem solving thinking is a fundamental skill for the design of products. Do you agree?*



## SYSTEM THINKING - DESIGNING SERVICE

*9- System thinking is a fundamental skill for the design of services. Do you agree? Elaborate*

	Product Design	Services Design
NATURE OF PROBLEMS	Clear, smaller and simpler	Fussy, bigger and more complex
VARIABLES AND STAKEHOLDERS	Fewer	Multiple/ needs Orchestration
PURPOSE OF THINKING		Understand network of interacting elements
INTEGRATION (in relation to problem type)	PS & ST can be integrate for solving "wicked" problems	
INTEGRATION (in relation to function)	ST: Sketches landscape for problems/ PS: Address problems	
FUNCTION OF APPROACH	PS solves problems/ST helps understand its repercussions	

**“Service design is solving a problem (using problem thinking) in the context of systems (understood by using system thinking)” TR**

## PROBLEM SOLVING VS SYSTEM THINKING

*10- How problem solving weights in comparison to system thinking, when designing products and when designing services?*

Difference between product and service

**Products and services are integrate-able but contingent.**

Difference between product and service's design process

**Designing services is more complex than designing products**

**The design process nature changes for services: Its end  
Becomes fussy and its character is not finite.**

CONCLUSIONS

What explains the shift from product design to service design

**Good base of transferable skills in product design**

**Government and social drive**

Skills shift/evolution from product to service design

**System thinking is part of it, but is not clear its level of importance. There are other competing skills such as Research, collaborative, etc. that might be as important.**

CONCLUSIONS



Influences in the shift to product to services design

**Main factors are: Technology development, emergence of new business models, government agendas and changes on people's mainstream thinking and values.**

Changes on the professional practice of design related to the shift

**There are perceived changes on the profession scope, Reach in terms of participation and focus of activity (towards people).**

Design thinking for the design of products or services

**The design thinking concept that remains Constant in product design and services design is The USER.**

CONCLUSIONS

Importance of problem solving for the design of products

**Problem solving is perceived as useful for the design of both, products and services**

**Problem solving is some times perceived as a negative approach.**

Importance of system thinking for the design of services

**System thinking is perceived as an important aspect of the design of services, specially for dealing with complexity.**

CONCLUSIONS

Problem solving vs. System thinking for the design of products and Services:

**Problem solving and system thinking are not opposite, competing or mutually excluding. Furthermore they can be mutually complementary.**

**The need of one or the other is not determined by the desired design output. It is individually dictated by the the singular and individual design process in each project undertaken. Their likelihood to be employed mostly depends on how general (holistic) or specific is the view of the designer(s) at the moment of application, and if the purpose for using the tool is more geared towards understanding or resolution.**

CONCLUSIONS

**GRACIAS**

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