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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<br>Dominant logic (GDL) | SERVICE-CENTRED<br>Dominant logic (SDL) |
|---|---|

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

(Vargo & Lusch, 2004)

| GOODS-CENTRED<br>Dominant logic (GDL) | SERVICE-CENTRED<br>Dominant logic (SDL) |
|---|---|

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)

| GOODS-CENTRED<br>Dominant logic (GDL) | SERVICE-CENTRED<br>Dominant logic (SDL) |

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)

| GOODS-CENTRED<br>Dominant logic (GDL) | SERVICE-CENTRED<br>Dominant logic (SDL) |
| --- | --- |

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)

| GOODS-CENTRED<br>Dominant logic (GDL) | SERVICE-CENTRED<br>Dominant logic (SDL) |
| --- | --- |

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)

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.

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 ".

**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**

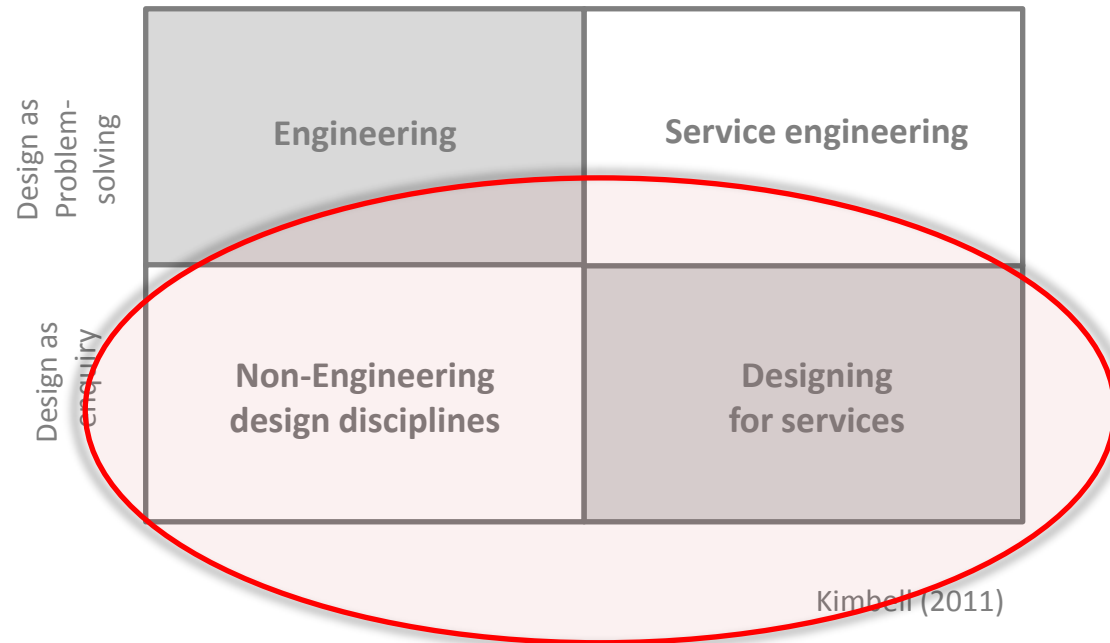**It is a ""world view" – seeing things holistically and interconnected"**

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

Design as Problem-solving

Design as enquiry

| | Distinction between goods and services are maintained | Service is the basic unit of economic exchange |
|---|---|---|
| Design as Problem-solving | **Engineering** | **Service engineering** |
| Design as enquiry | **Non-Engineering design disciplines** | **Designing for services** |

**Ways of thinking about design**

Kimbell (2011)

## 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 | Design Council RED — BOLD IDEAS. BETTER LIVES. THE AUSTRALIAN CENTRE FOR SOCIAL INNOVATION |
| Director, User Experience | UK | Design Council CISCO |
| Co-founder and Director of Design | UK | THE GLASGOW SCHOOL:! ARE Nesta... SNOOK™ transforming people |
| Founder/Director | Netherlands | EXCEPT INTEGRATED SUSTAINABILITY |

# DESIGNERS

*Who the interviewees are?*
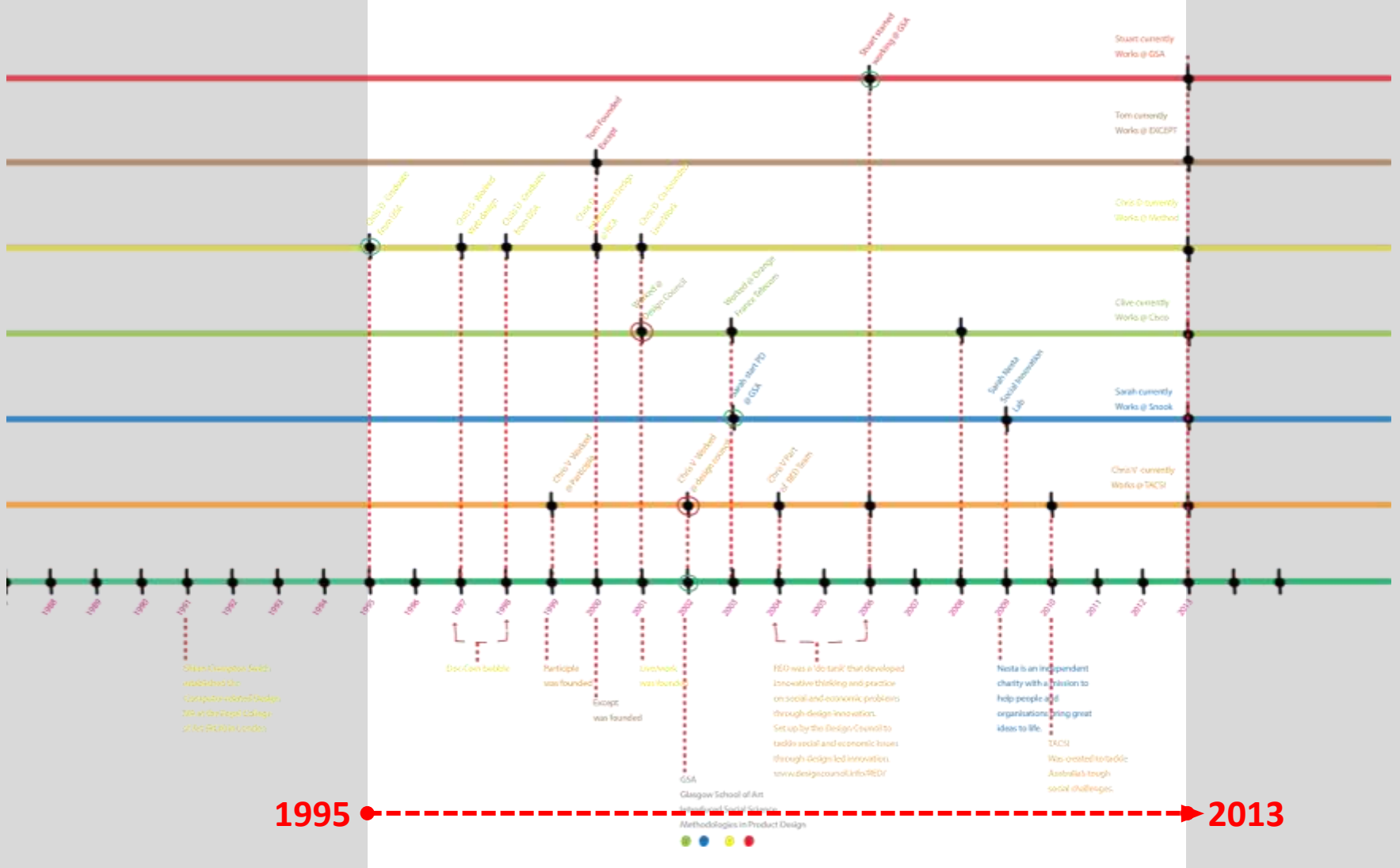
# DESIGNERS/shift

*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?*
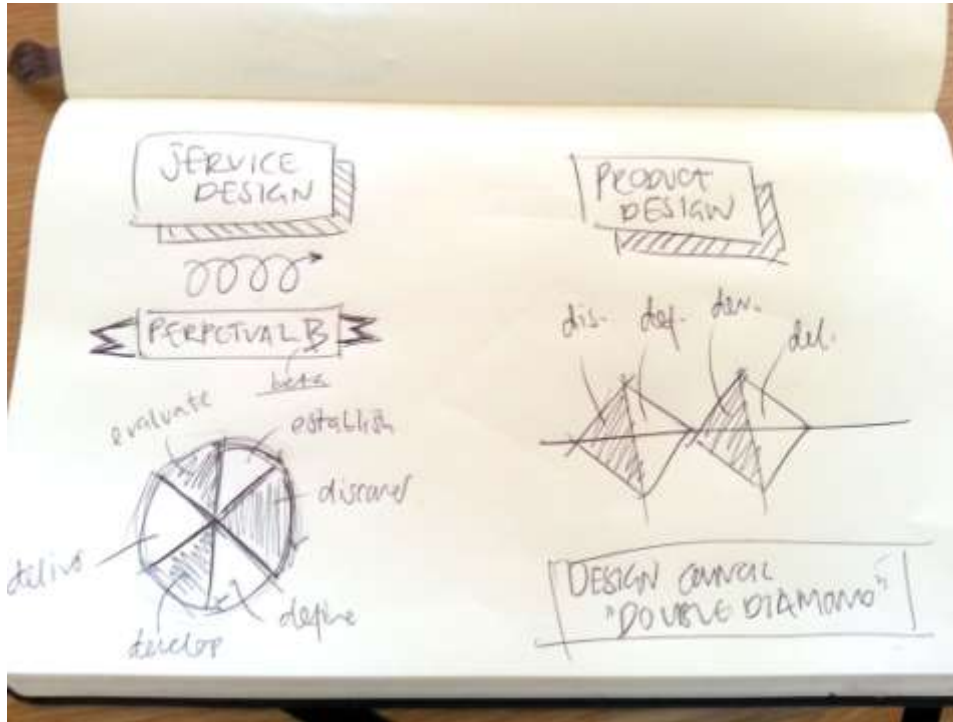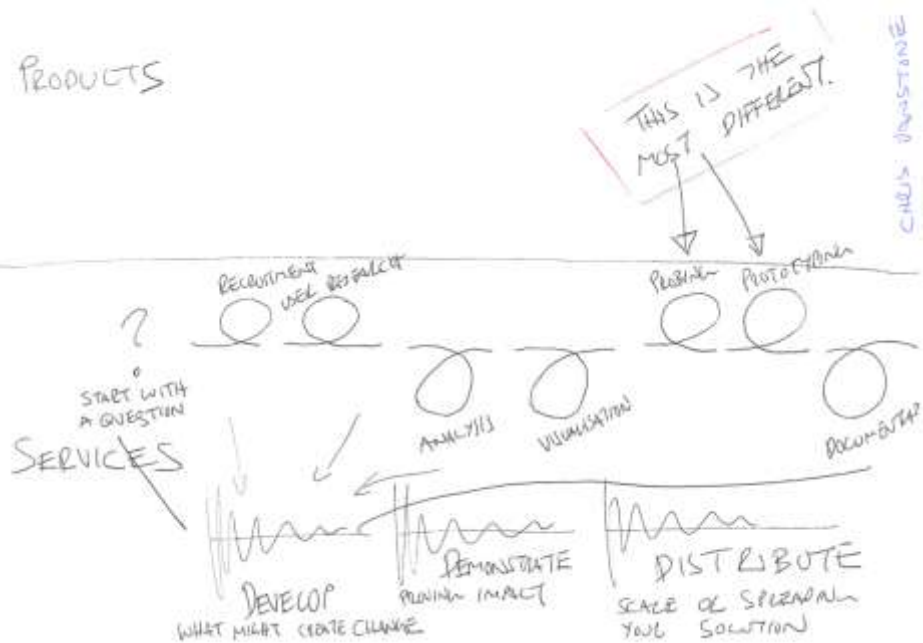
# DESIGNING A PRODUCT VS DESIGNING A SERVICE

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

|  | Designing a Product | Designing a Service |
|---|---|---|
| **Craft and Technique** | related to "manufactured" character of products | related to organisational change and "back-end systems" |
| **Complexity** | Simple process | Complex process |
| **Prototyping** | Models, renders, mock-ups, etc | Scaled down services (Pilot) |
| **Constrains/deliverables** | Defined set of constrains | Broader set of deliverables |
| **steps/length/end point** | 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?*

| | |
|---|---|
| **Designers approach** | Focus on Experience |
| | Understanding the importance of user insights |
| | Seeking to improve products by enabling user involvement in service-like systems |
| **Government agenda** | 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.) |
| **Transferable design tools** | Transferability of design methods from design consultancy to other contexts such as government, organizations and charities. |
| **Development of new Design professional areas** | 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 |
|---|---|---|---|---|---|
| **Attitude** | naïve view<br>empathy |  |  |  | Empathy |
| **Interpersonal** |  | Confidence to deal with others | Enable conversation |  |  |
| **Research** | questioning |  | User research skills<br>Ethnography |  | Ethnography |
| **Communication** | drawing<br>scenario building<br>story telling<br>quick prototyping | visual communication | Service prototyping |  |  |
| **Participatory design** |  | Co-creation ability | Co-design<br>Face to face design |  |  |
| **Aesthetics** | sense of making things beautiful |  |  |  |  |
| **Business related** |  |  | business modelling/innovation | Business planning and management | Business |
| **Thinking** |  | Deal with complexity | Segmentation<br>Analytical skills | **Complex system thinking**<br>**System thinking**<br>**System mapping**<br>Value flows<br>Understanding patterns | Being able to interpret customers |
| **Knowledge** |  |  | programme theory and logic | Sociology | Interaction<br>project management |
| **Interdisciplinary** |  |  |  |  | Interdisciplinary |

# DESIGN SKILLS FOR DESIGNING SERVICES

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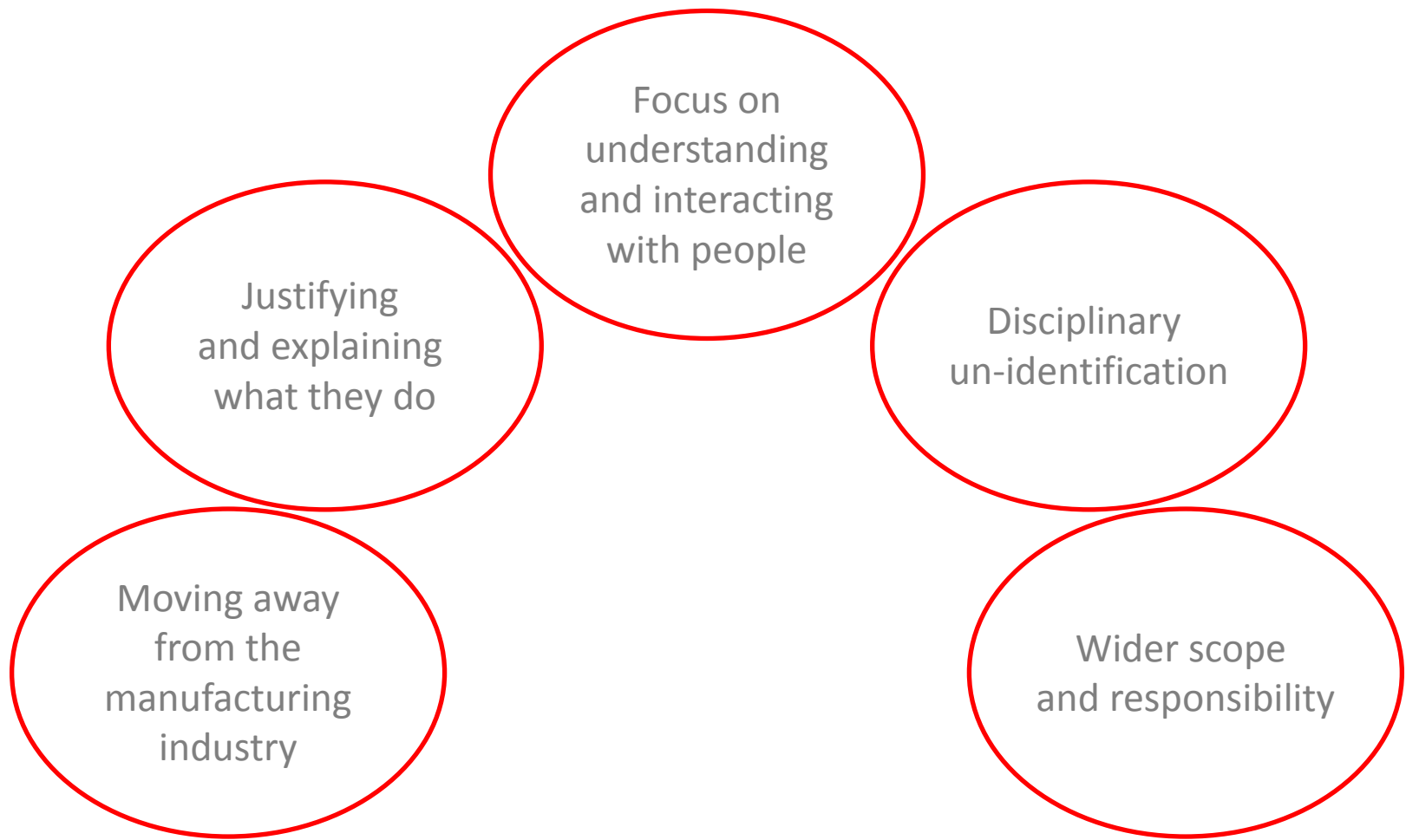
Environmental awareness

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?*

Focus on understanding and interacting with people

Justifying and explaining what they do

Disciplinary un-identification

Moving away from the manufacturing industry

Wider scope and responsibility

# DESIGN PRACTICE CHANGE

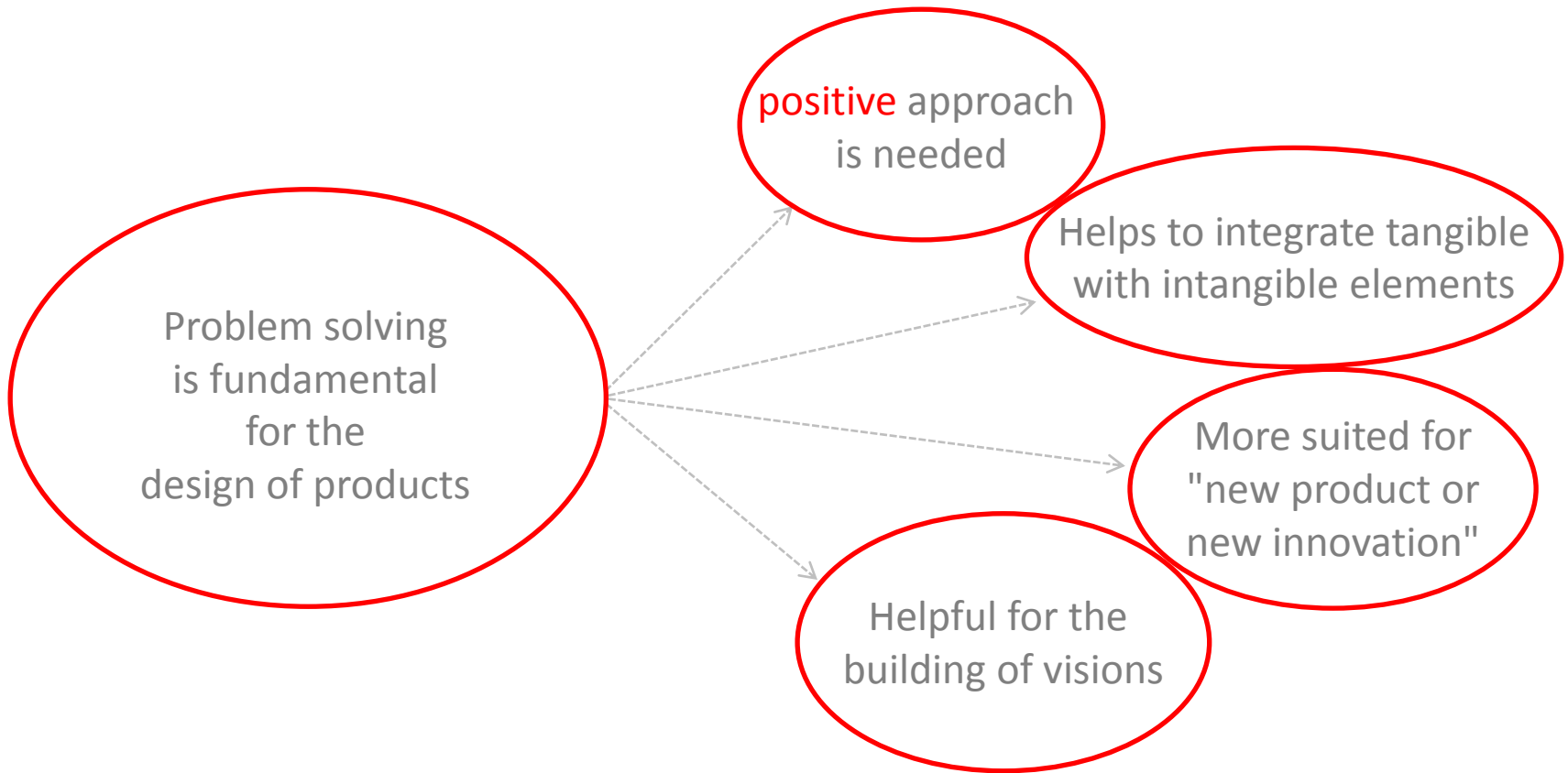*6-How the professional practice has changed with the design of services? (Has the nature of your work changed?)*

| 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** | | | | | Comsumption |
| **User** | People | | market | | user-needs |
| **Ownership** | | | | | Ownership |
| **Competition** | | | Competition | | |

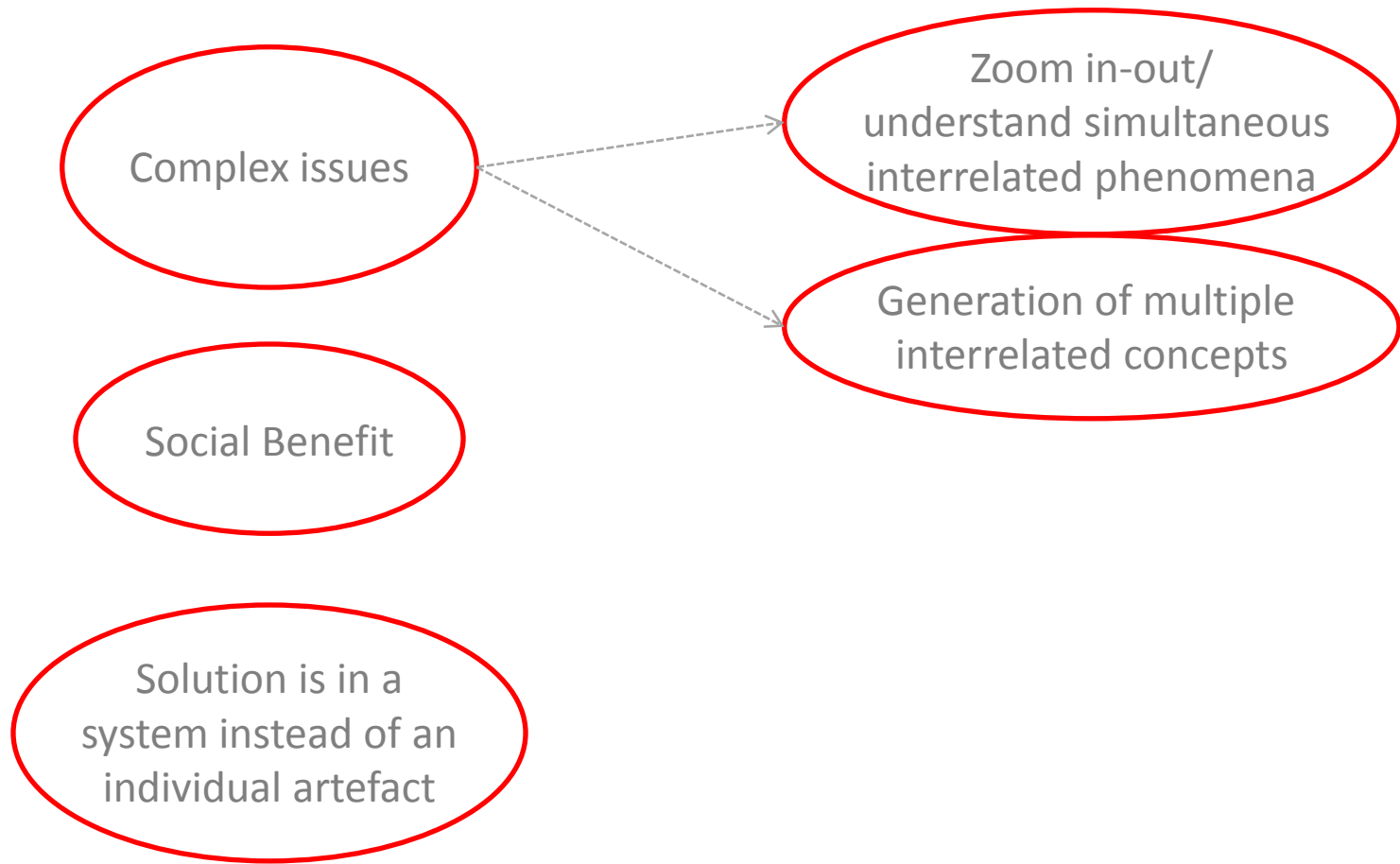| Service | | | | |
|---|---|---|---|---|
| | CG | SD | CV | TR* | CD |
| **Centre of activity** | Value/Proposition | | | | Data |
| **User** | Person/context | | Face to Face | | User Cap./Access |
| **Network** | Touch-Points/Eco-system | Eco-system | | Full spectrum | Network |
| **Description** | 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?*

Complex issues

Zoom in-out/ understand simultaneous interrelated phenomena

Generation of multiple interrelated concepts

Social Benefit

Solution is in a system instead of an individual artefact

# 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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