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# Enhanced independent living requires health care services to be redefined

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***Parallel session on innovations bringing care at home***

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# Overview

- › Enhanced independent living => new services needed
- › Healthcare-related services and non-medical services
  - Typology of roles
  - Four types of roles: medical and intermediating roles
- › Telecare services
  - New services due to enhanced independent living
- › Lack of understanding of these roles and services is harmful



› Increasing lifetime expectancy

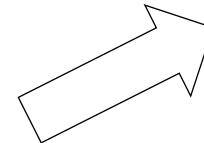
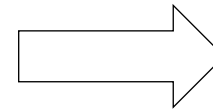
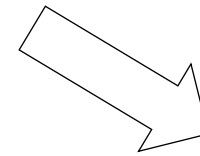
› Growth in the elderly population

› Growth health care related costs

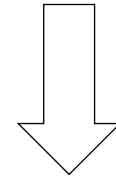
› Growth of social welfare costs

› Increase in working life time

› Changing values in the society



Enhanced  
Independent  
Living



Growth of services

- › Prevention
- › Intermediation
- › Non-medical care



- › Can classical theory explain Healthcare-related services?
- › Porter's value based competition leads to problems, e.g.:
  - Value model not easily applicable
  - Services such as diagnosis-without-results difficult
- › Christensen's typology (ill-defined vs well-defined problems) from Stabell and Fjeldstad, solves the latter issue. However, questions remain unanswered e.g.:
  - Why do we have hospitals?
  - Why exactly are insurers necessary?
  - What is the role of the government, and why?



# Theory of Christensen on disruptive innovation

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Knowledge Shop:  
 Customer-specific

Value-Adding Process Chain:  
 Repetitive

Ill-defined problems

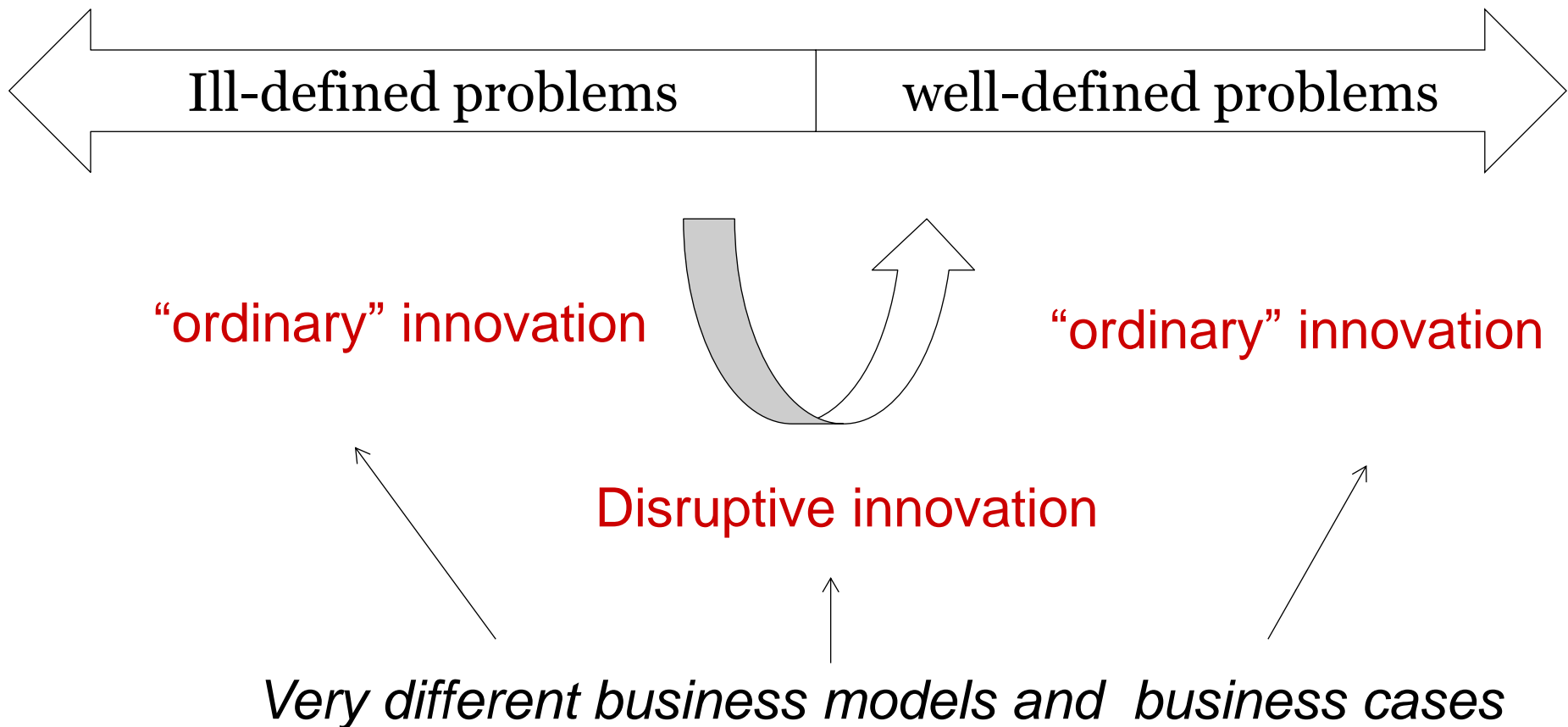
well-defined problems

“ordinary” innovation

“ordinary” innovation

Disruptive innovation

*Very different business models and business cases*





intermediate	<b>Self Help</b>  Connecting services	<b>Care Payer</b>  Bundling & Bridging services
medical	<b>Knowledge Shop</b>  Problem-oriented services	<b>Therapy Provider</b>  Value-adding Process chain services
	Ill-defined	Well -defined

Care payers are insurers, government, employers



# Aspects of roles

	Knowledge shop	Therapy provider (VAPC)	Care allocator	Self Help services
Payment / incentives				
Evaluation/ quality control				
Innovation				



- › Telecare simply means, that the service is delivered from (or to) a remote place: the doctor nearby
- › However, it also allows new services and new healthcare delivery models
- › Classical services require co-location and synchronicity
- › Telecare allows a-synchronous service delivery
- › Last but not least: continuous monitoring services





- › For many therapy providers, telecare seems promising:
  - COPD, Heart, Diabetes, ....
  
- › The key service after initial treatment is monitoring
  
- › However, a *monitoring service* may proceed 7 x 24 hrs/wk
- › The real nature of such (remote) services are new:
  - How should this service be paid?
  - How to set quality control norms for this service?
  
- › Investigated in other branches (ICT, Energy) but not in Health Care



- › The service ‘monitoring’ is an *on-demand service*
- › Other examples in other domains:
  - Roadside assistance (ANWB)
  - Telcos providing connectivity
  - ICT services, e.g. in banking, authentication,....
- › Monitoring services presume associated *interventions*
- › Monitoring services and associated interventions require different contracts, service levels, payment structures, quality control measures, etc.
- › Different, but interrelated
- › In generic terms this is new, although examples exist



- › Knowledge e-shop may offer diagnosis
  - E.g. general practitioner
    - Can often be done asynchronously, except for face-to-face interaction
    - Requires sometimes co-location and synchronicity
  - E.g. emergency care
    - Can sometimes be done remotely (ambulance)
- › Knowledge e-shops may offer help for complex problems
  - E.g. comorbidity
  - E.g. psychiatric support
  - E.g. help when approaching end-of-life
  - Again, a monitoring service !



- › A municipality faces the fact, that a social problem has sometimes a medical root cause
- › Accordingly, they want their social workers to be supported by medical knowledge (e.g. a nurse)
- › By Dutch law, they have to ask the dominant insurer to contract the nurse
- › The insurer contracts a nurse from a local homecare provider
- › She will be located at the city hall
- › What is wrong here?
- › Roles not properly distinguished!



- › In NL, insurers and municipalities are main care payers
- › They contract providers of care and cure services
- › Their services *are* already e-services
- › However, they struggle with their roles and Dutch society is very negative about their performance



- › Main goal is to purchase health care and cure services
  - Allocation proceeds via medical indications
  - Assuming therapies are well-defined (DBC)
  
- › Selecting providers (representing clients)
  - Balancing costs and quality
  - Creating competition between providers
  
- › Competing for clients
  - Sharing risks
  - Guaranteeing timely high-quality service
  - Providing health-related information, products





- › Enhanced independent living needs life-style interventions
  - Gait, Nutrition, Social connecteness, etc.
  - Challenges?
  
- › Interventions can be delivered often as e-services
- › Such interventions are *prevention* from a medical viewpoint
  
- › Such services are not covered under health-care insurance
  - No medical indication for prevention
  - Prevention doesn't fit with yearly contracts
- › Often these are not delivered by health care providers



- > Main goal is to purchase and supply social services
  - No formal role to stimulate competition
- > Institutional role is to support inhabitants
  - No formal role to compete for inhabitants
  - Best positioned to provide physical facilities (dorpshuis) in addition to e-services (support)
- > They support citizens via an e-government program
  - Allocation of social support is not clearly defined
  - (in contrast to allocation of medical care)







- › Municipalities do not understand their role as care payer
  - Privacy of citizen is a problem
  
- › On the edge of the medical and social realm
  - Which is in itself a difficult issue
  - Example: monitoring a mentally retarding citizen
  
- › They sometimes play the role of knowledge shop
  - Whereas they should *organize* that a knowledge shop is involved in the patient's care
  - This allows the care payer to mitigate privacy issues



- › Many self-help developments are facilitated by e-services
  - Patient communities for rare diseases
  - Communities of parents with children as chronic patients
  - Weighwatchers, anonymous alcoholists, addicts, ...
  
- › Many citizens search on the web for complex problems
  - Communities of informal carers
  - Promising due to smartphone and tablet



However, we should be aware of the digital divide ...



- › Informal care is often not properly recognised as a care service including financial aspects
  
- › Actually, an informal care provider may both provide and consume a set of services, e.g.
  - A monitoring and intervention service provided by the informal careprovider to a patient
  - The same monitoring and intervention service provided by a formal care provider to the informal care provider
  
- › Municipality should keep track of informal care services



- › Enhanced independent living will grow
- › Telecare services will be needed in all service domains, and will integrate with home automation, entertainment and transport
- › Proper roles have to be taken up by knowledge shops and therapy providers, but also by care payers and self-help
- › New types of services need to be introduced and studied, both within the medical domain and in the domain of intermediaries (especially wrt prevention and informal care)
- › An interesting new service is the distant monitoring and intervention service, which emerges at many places



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Thanks !

