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Digital Innovation and Development

INF5850



Agenda

- Learning outcomes
 - Know what digital innovation is
 - Be able to discuss the relevance of digital innovation in a development country setting and for development
- Discuss the following argument:
 - *“Digital Innovation is not on the ICT4D agenda – it is crucial to get it there from a development perspective”*
 - Discuss/challenge/refine this argument – 5 short assignments
- Assumptions
 - You are willing to engage in discussions
 - I know something about digital innovation – you know something about development

What is development?

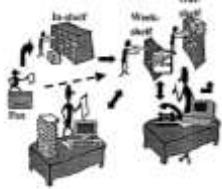
DHIS2: An open source and web-based software for collection, aggregation and visualization of routine health indicators in developing countries

Digital innovation

Example 1: DHIS2 and digitization

Digitization/digitalization is converting information into a digital format, i.e. bits.

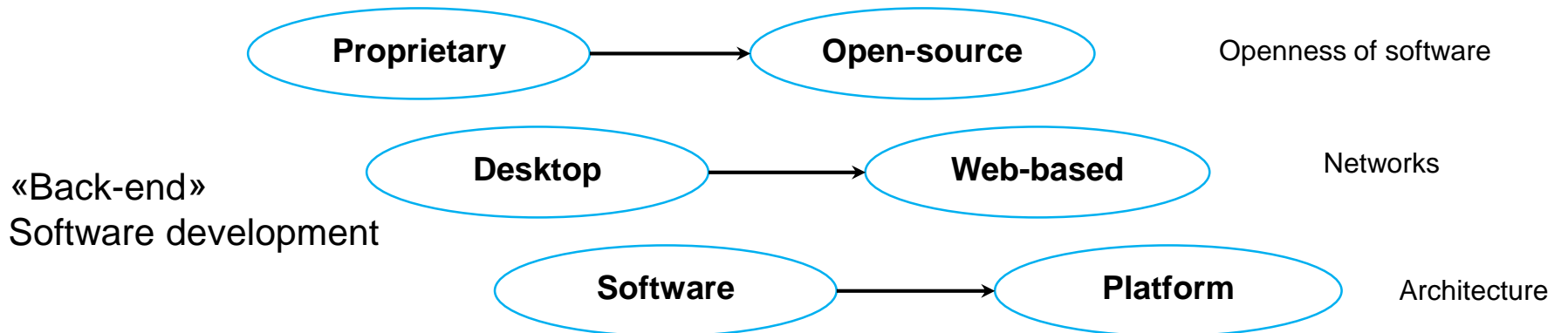
Braa and Sandahl (1998)



«Front-end»
Health system

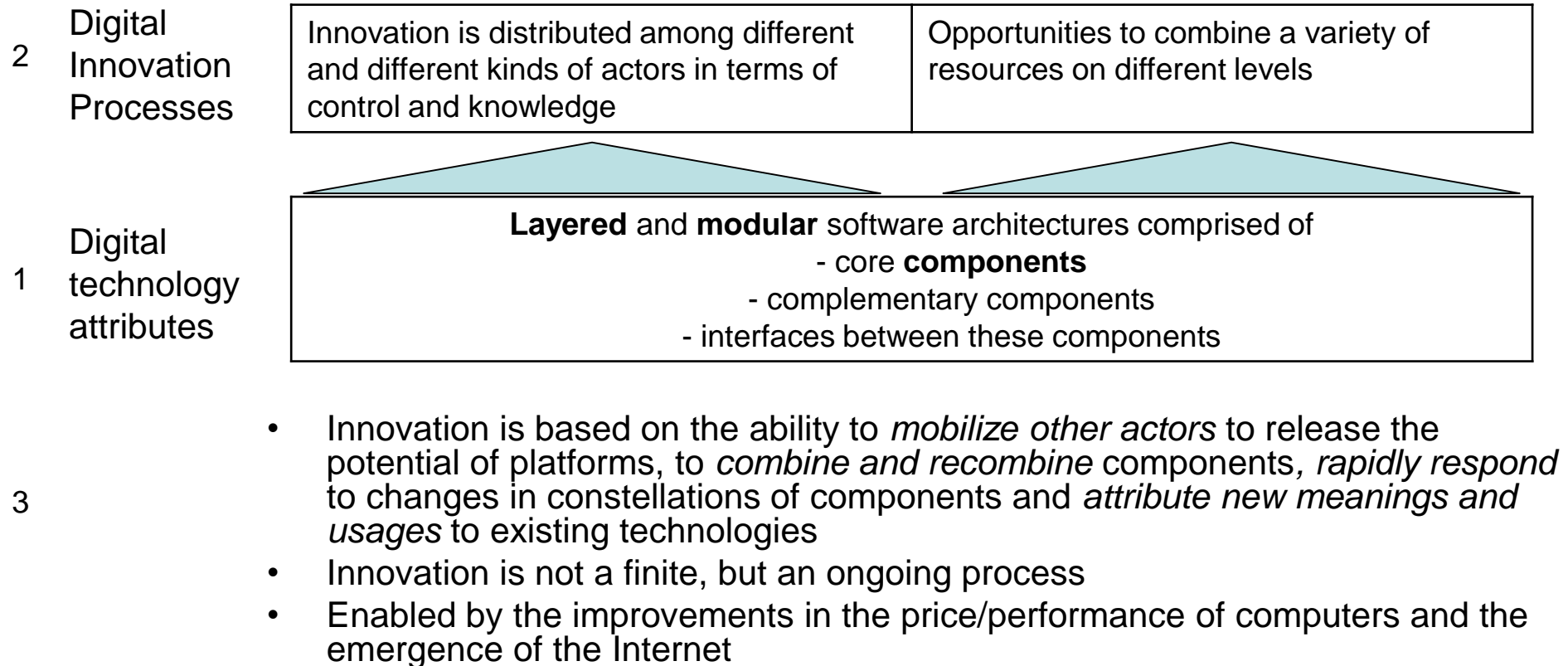


The “world of digitization”



The “world of digital innovation”

What Digital Innovation is



Digital Innovation Processes

- Require the ability to *mobilize other actors* to release the potential of platforms
 - Platforms alone are without value
- To *combine and recombine* components
 - Mix and match, and remix
- *Rapidly respond* to changes in constellations of components
 - New opportunities
 - New actors
- *Attribute new meanings and usages* to existing technologies
 - Spot and leverage on the potential in new constellations

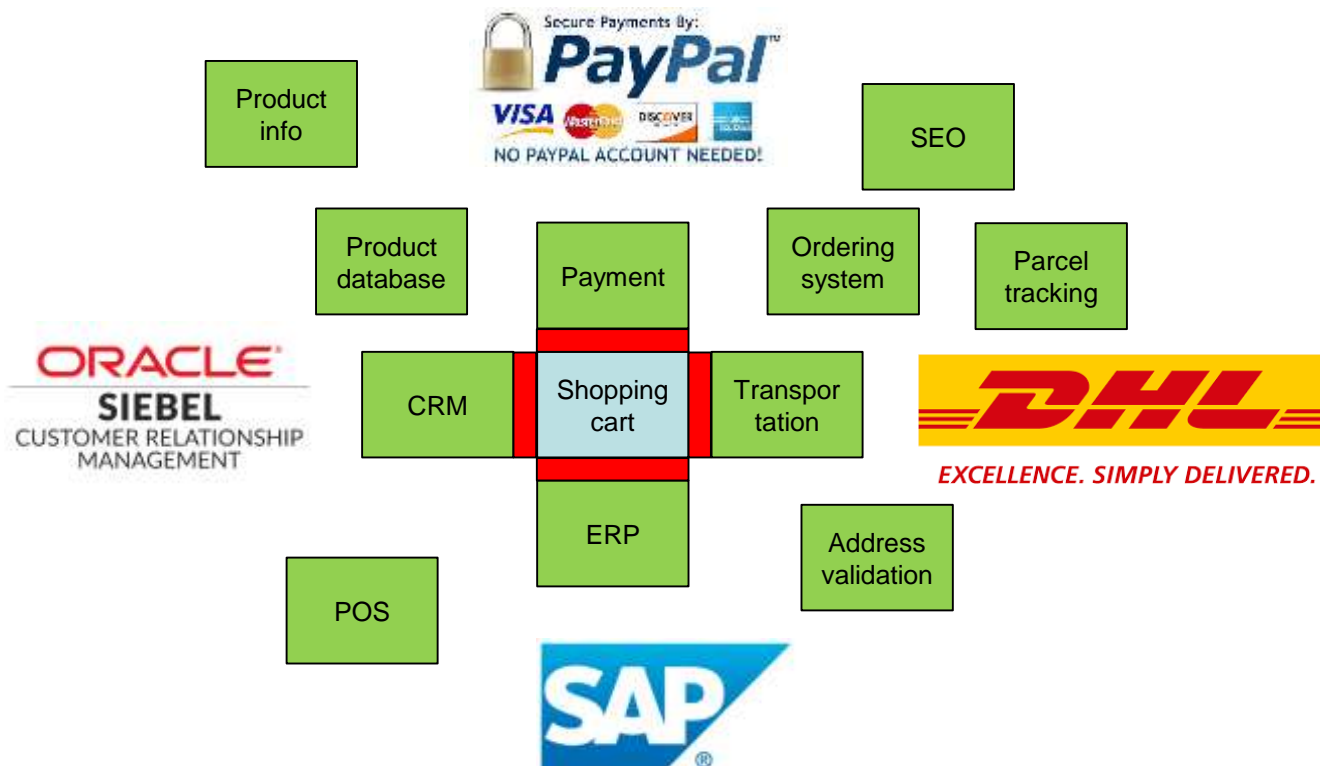
Digital innovation

Example 2: Webshops

- How can we relate webshops to digital innovation?

Digital innovation

Example 2: Webshops



“Lift a finger against wrong doing. Become an SMS-activist, send AMNESTY to 2160”
«3 actions per month. 6 kroner per actions.»

Digital innovation

Example 3: Mobile Content Services (CPA)



- What is needed for this?

“Lift a finger against wrong doing. Become an SMS-activist, send AMNESTY to 2160”
«3 actions per month. 6 kroner per actions.»

Digital innovation

Example 3: Mobile Content Services (CPA)

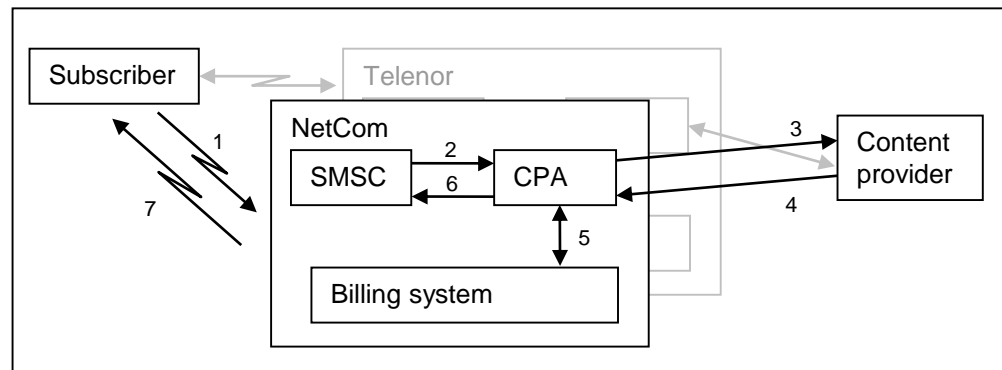


- Mobile phone network (handsets and network)
- Payment solution
- Short number
- Coordination – one fee, one short number, one short code

The CPA platform

Example 3: Mobile Content Services (CPA)

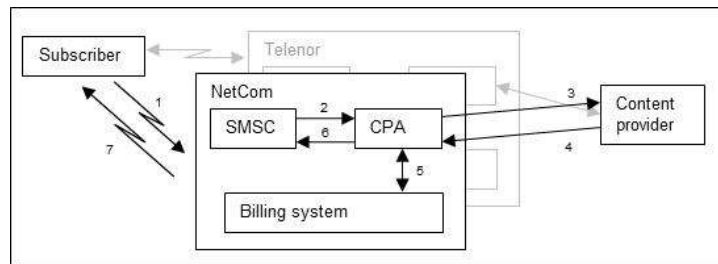
- Platform, standard, business model ...
 - Enabling premium-SMS services
 - Revenue sharing
 - ‘*Open Garden*’



CPA: Challenges and Opportunities

Example 3: Mobile Content Services (CPA)

- Small-scale, bottom-up, flexible, external input, under the radar
- Building on the installed base – technology, relationships between people, billing systems
- ...
- Representing a new strategy and a lack of strategy

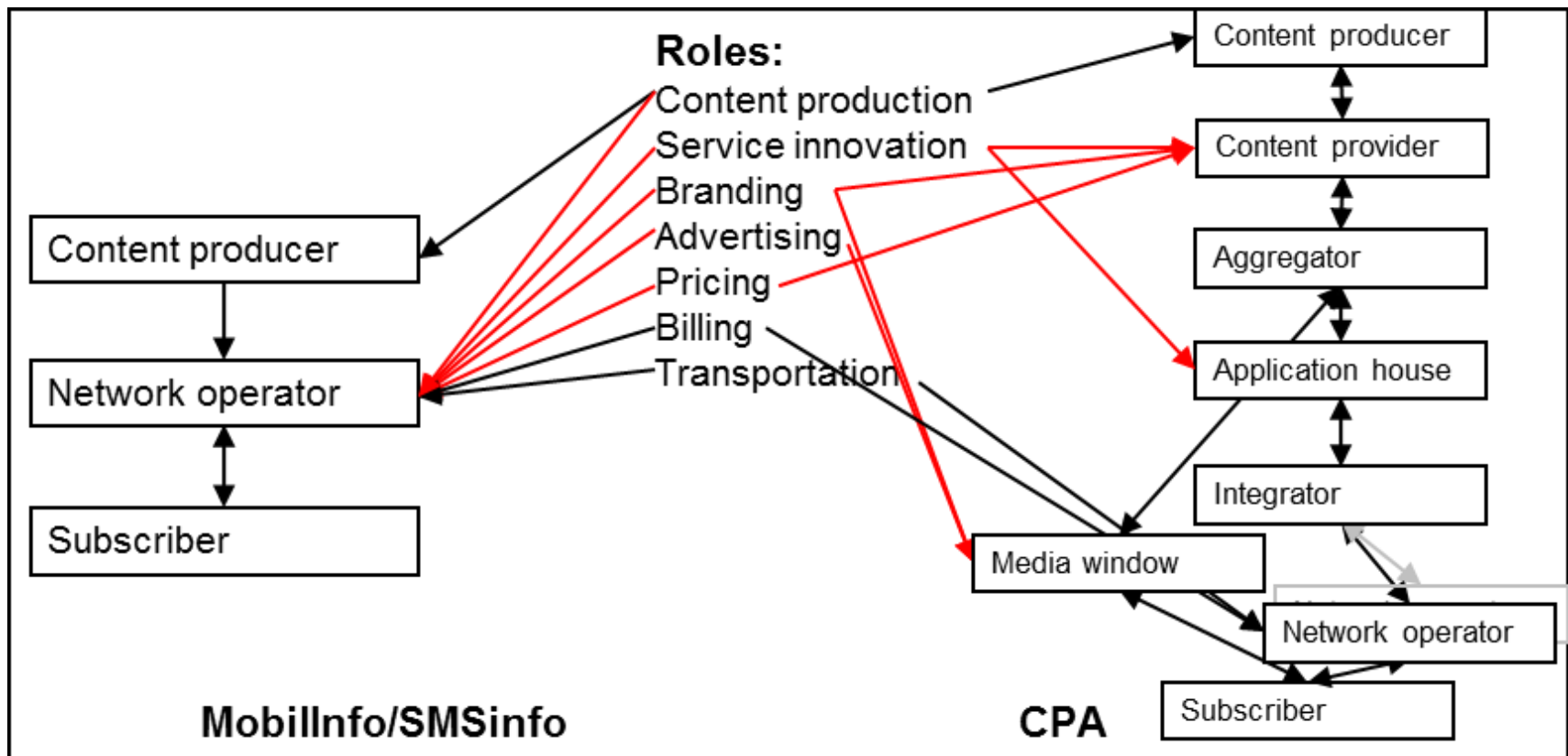


Resistance from management:

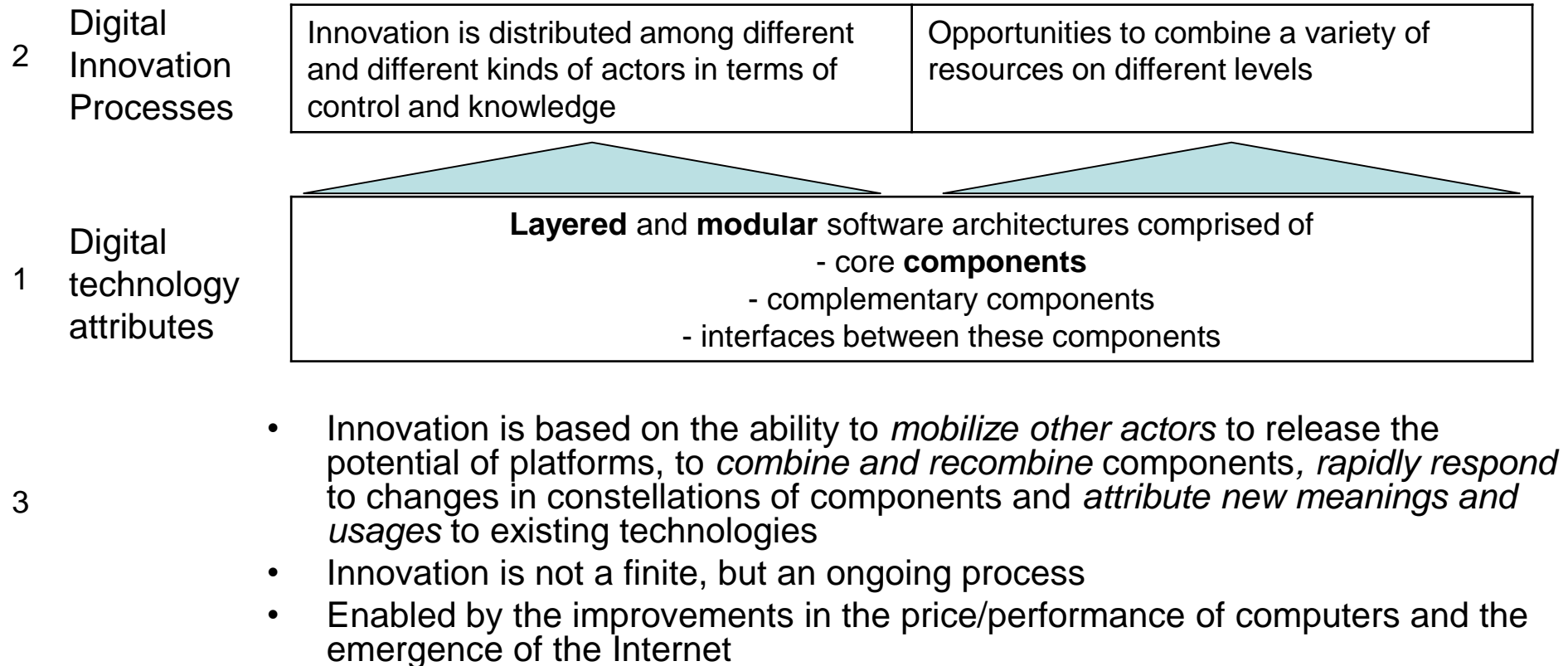
- No opportunity differentiation
- Potentially brand damaging
- No control
- No business case

CPA: Roles and value network

Example 3: Mobile Content Services (CPA)



What Digital Innovation is - repetition



Assignment 1:

- Find example(s) of digital innovations relevant for developing countries
- In groups of 3 for 10 minutes
- Then plenary

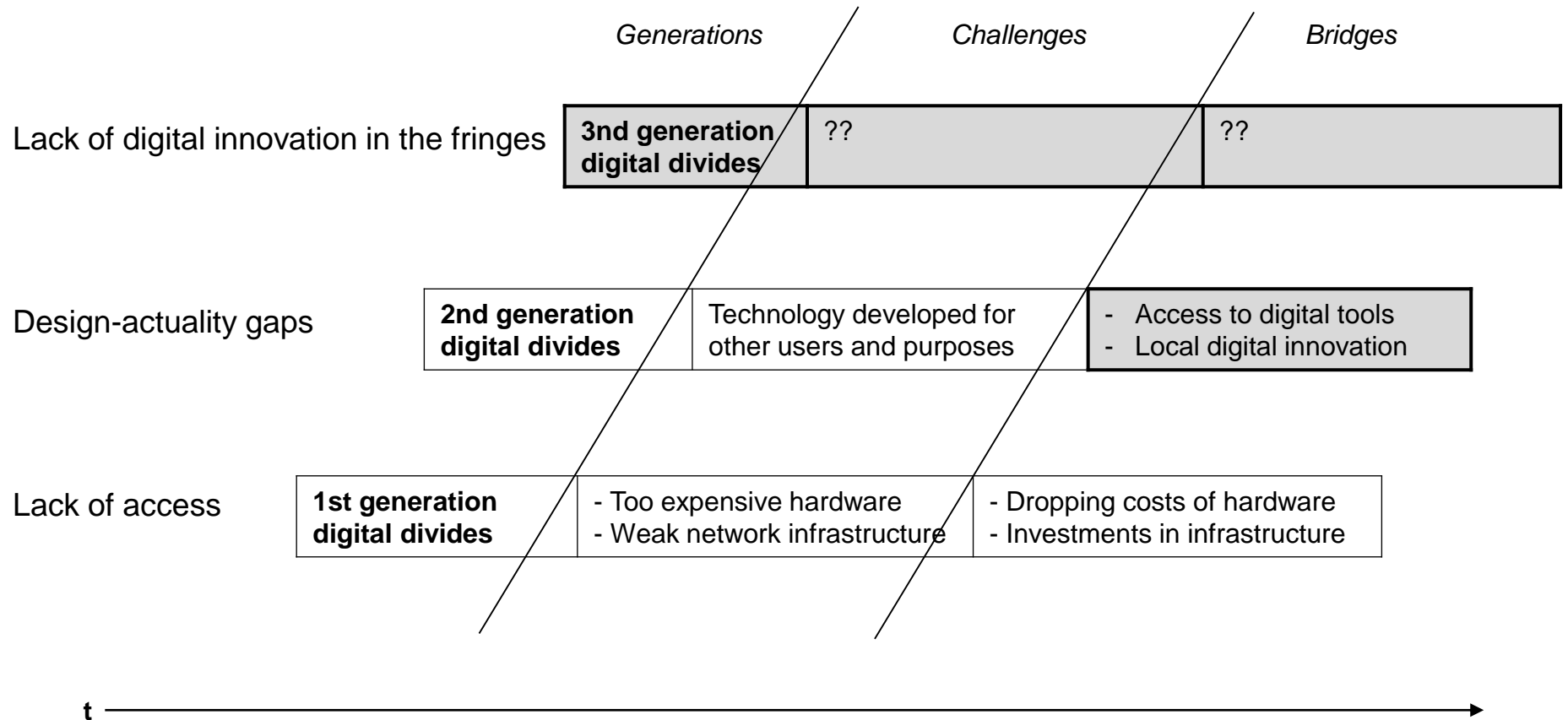
Assignment 2:

- Find example(s) of digital innovation *by* developing countries
- 10 minutes
- Then plenary

Digital Innovation = Development?

- The next digital divide
- or
- Offering multiple venues for multiple different actors in developing countries to participate in innovation and bridging 'old' gaps?
 - "Half products" - "deferred innovation" - but who will be doing the other half/part?
 - "Digital technology, therefore, has democratized innovation and almost anyone can now participate" - who is in the group that can't?

Digital Innovation and «Generations of Digital Divides»



Assignment 3:

- How can digital innovation be related to development? Challenges and bridges?
- Does it make sense to say: “Participation in digital innovation is development”?
- 10 minutes
- Then plenary

Digital Innovation in the Fringes of Software Ecosystems

- ”... spaces where innovation activities unfolds far away from and thus disconnected from the context where the central software components (typically, a software platform) in the ecosystem are developed. These are contexts where resources and human capacity for digital innovation are scarce”
 - Increasingly connected in terms of high quality and affordable Internet access, but
 - Lack of human capacity - lack of people skills, expertise
 - Lack of social relations - disconnected from innovation networks and lack of generative social relationships

Assignment 4:

- Does this concept of “fringes” make sense?
- How to “strengthen” the fringes?

- 10 minutes
- Then plenary

Assignment 5:

- *“Digital Innovation is not on the ICT4D agenda – it is crucial to get it there from a development perspective”*
- Does it make sense?
- 10 minutes
- Then plenary

A Digital Innovation Research Agenda

Empirical Research on Digital Innovation by Developing Countries	Theorizing Digital Innovation by Developing Countries	Participation in Digital Innovation as Freedom
<p>What is the current role of developing countries in digital innovation?</p> <p>What does it take for organizations/ individuals in developing countries to participate in digital innovation?</p> <p>Is digital innovation a democratization of innovation where innovation will be <i>by</i> developing countries – or will developing countries only be users of digital platforms?</p> <p>Is digital innovation the source of yet another digital divide?</p>	<p>What is digital innovation in developing countries?</p> <p>Conceptualizations of technology: digital technologies, platforms, ecosystems, generativity, openness etc.</p> <p>Conceptualizations of digital innovation processes: boundary resources, innovation networks, human capacities needs, politics etc.</p>	<p>Understand relevant roles for developing countries in digital innovation for development, what are barriers for participation; and what is the support needed.</p> <p>Understanding how participation in digital innovation relates to the freedoms of individuals.</p>

References

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