



UiO : Department of Informatics
University of Oslo

Methods & Techniques in Participatory Design

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in5510 – 17/9/2018



methods & techniques for design of IT

- application area
 - what kind of systems is the method applicable for?
- perspective / world view
 - e.g., PD
- guidelines
 - techniques
 - tools
 - principles for organization



Andersen et al 1986



Bratteteig et al 2012

PD (Participatory Design) basics

- future users of technical solutions should **have a say** in the design of those solutions
 - 1) providing knowledge that will improve the design
 - 2) ease the introduction of the new technology
 - 3) influence future working conditions / changes that will affect them
- having a say is more than having your voice heard
- the organization of the design process should facilitate user participation throughout the process emphasizing
 - **mutual learning** (problem setting and solving)
 - **co-construction** of the new solution in its real context

a tiny bit of history: origin of PD

- the roots: industrial democracy
 - 1960s & -70s work environment's psycho-social aspects
 - Human Factors \neq Taylor's scientific management
 - socio-technical systems (*Mumford: ETHICS, Checkland: SSM*)
- ☞ work environment protection (legislation)
- the automation of work
 - skills (upskilling, deskilling) / autonomy & control
- a critical view: technology is not neutral
 - alternative technological solutions
 - Scandinavian approaches: collaboration with trade unions



Kristen Nygaard

a tiny bit of history: PD as a critical position

the goal of PD:

“*Results* are all action carried out by the MWU*, centrally and locally, which on the basis of activities and insight gained within the project are aiming at giving the MWU and its members increased influence on the planning, control and data processing of the firms.”

(Nygaard & Bergo 1975: 7)



Kristen Nygaard

* *MWU = Iron and Metal Workers' Union*

a tiny bit of history: talking about politics

- politics – the political system: government, society, economy
 - “the activity through which people make, preserve, and emend the general rules under which they live” (Heywood 2000)
 - taking sides (stakeholders, interest groups)
- power: the ability to achieve a desired outcome
 - in democracies: resolving conflict (compromise, negotiation)

a tiny bit of history: talking about power

- power: the ability to achieve a desired outcome
 - in democracies: resolving conflict (compromise, negotiation)

power over: getting a person to do something that s/he would otherwise not do
power to: capacity, potential, ability

Hanna Pitkin

forms of power:

- power/knowledge (*Foucault*) - authority from position
- organizational structures - control of resources
- ... - non-decision making
- trust, loyalty
- agenda control (*Borum & Enderud*)

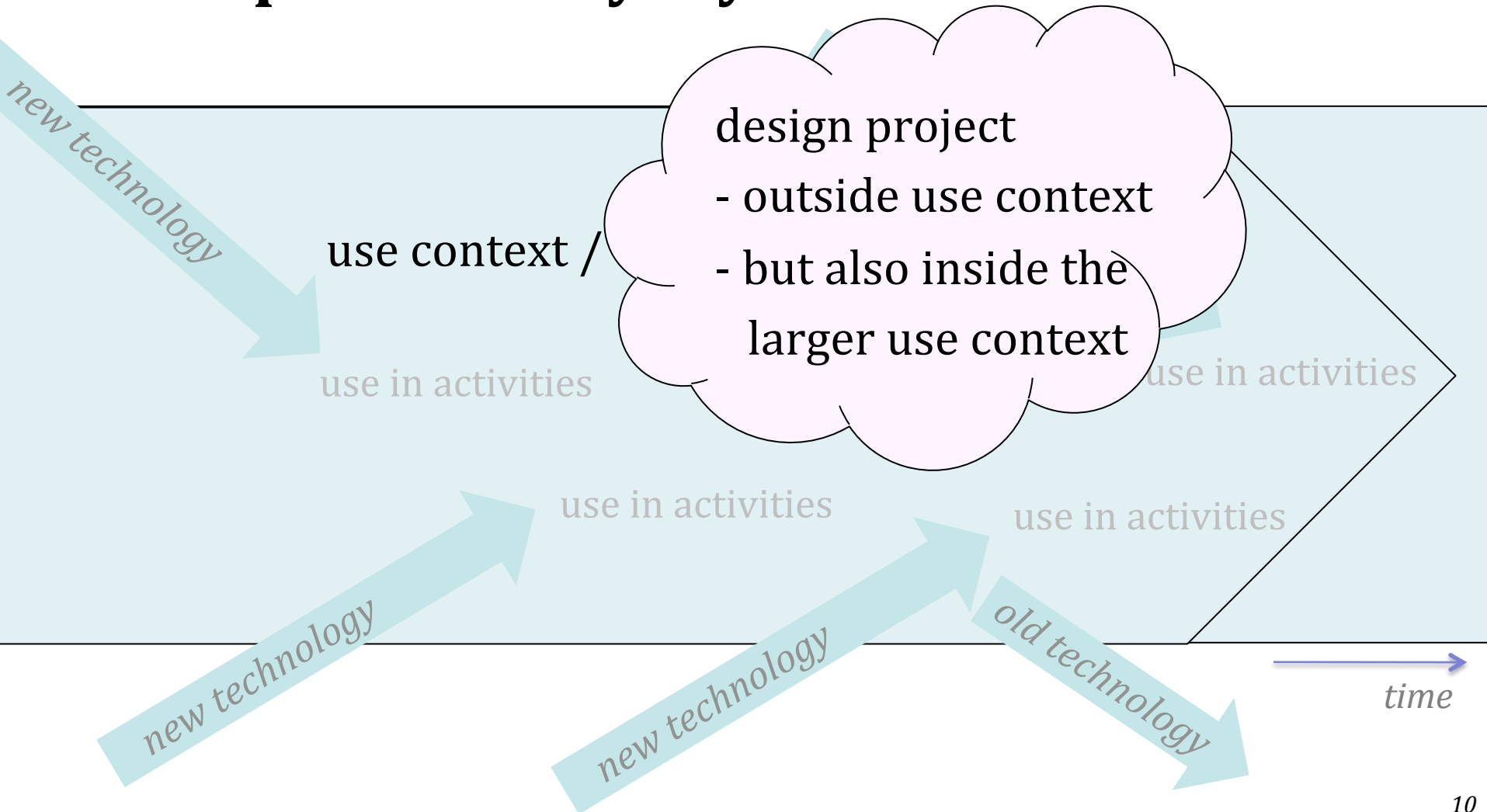
- technology is not neutral (*Marcuse, Foucault ++*)
 - design from somewhere (*Suchman*)
 - “do categories have politics?” (*Winograd / Suchman, Winne*)
 - “sorting things out” (*Bowker& Star*)



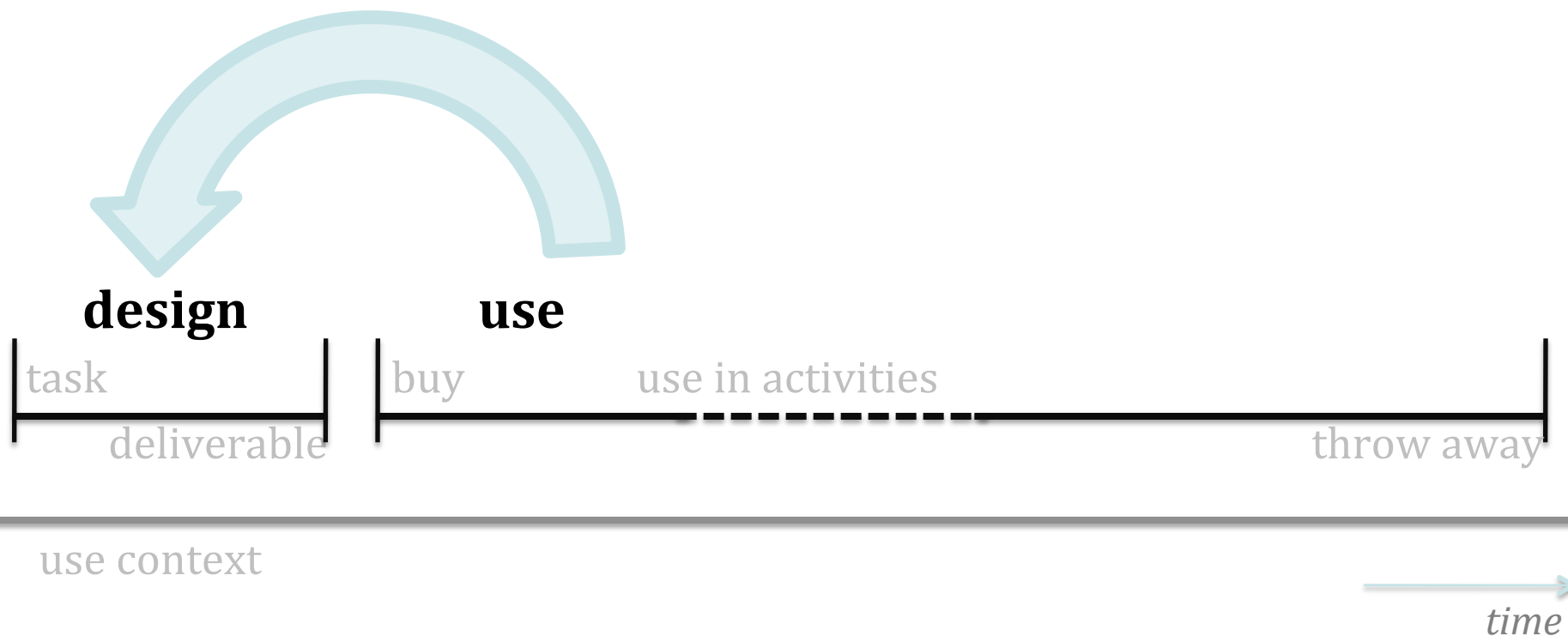
PD as a perspective on design of IT

- future users of technical solutions should **have a say** in the design of those solutions
 - 1) providing knowledge that will improve the design
 - 2) ease the introduction of the new technology
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use is part of everyday activities



design ↔ **use**



PD basics

- having a say
 - having a voice \neq having a say
 - power
- mutual learning
 - two-way learning
 - developing technical imagination
- co-realization
 - based on different expertise (speak their own language)
 - intertwining analysis & design

- *model power*
- *agenda control*

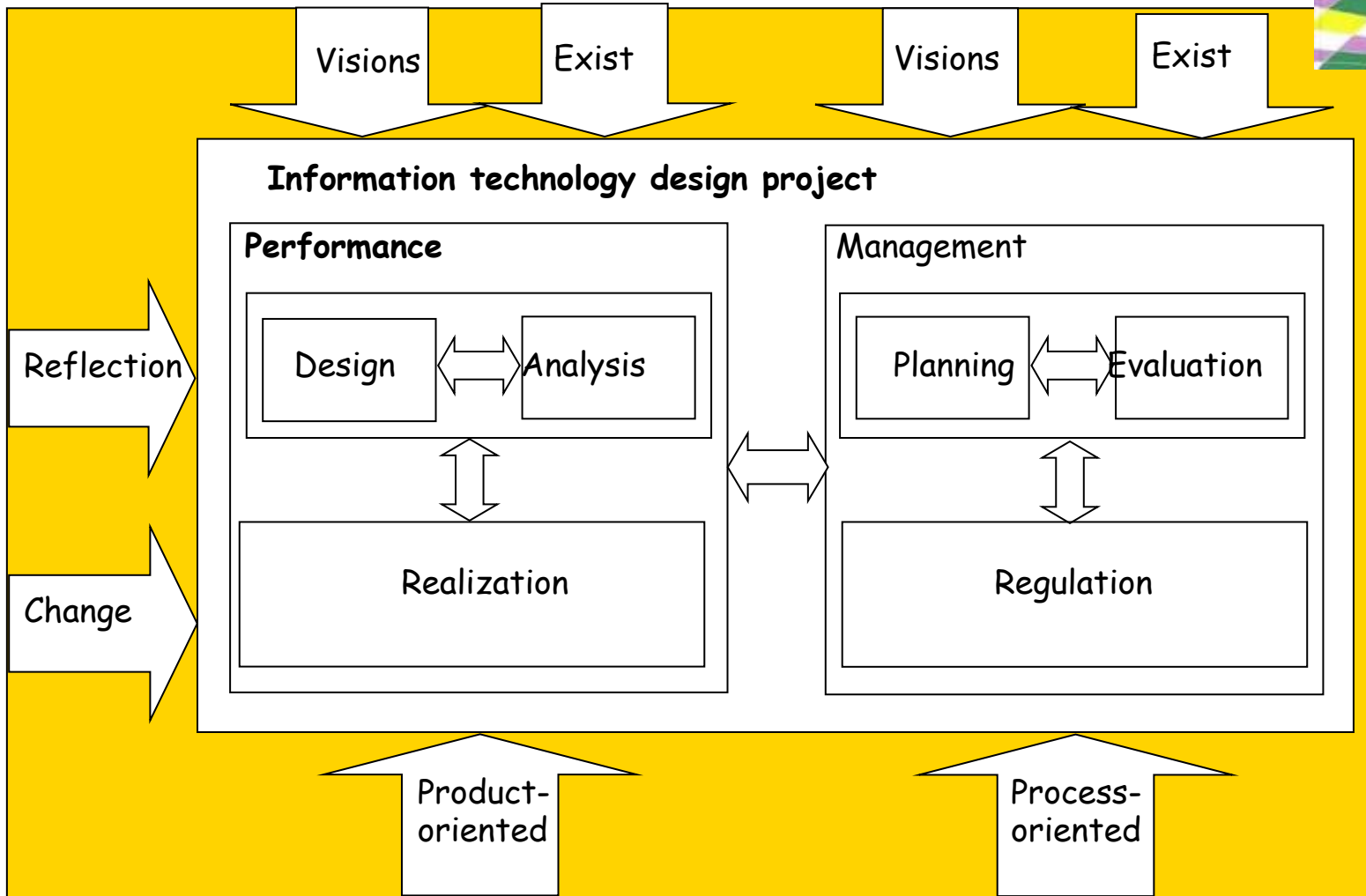
- *problem setting*
- *levels of influence*

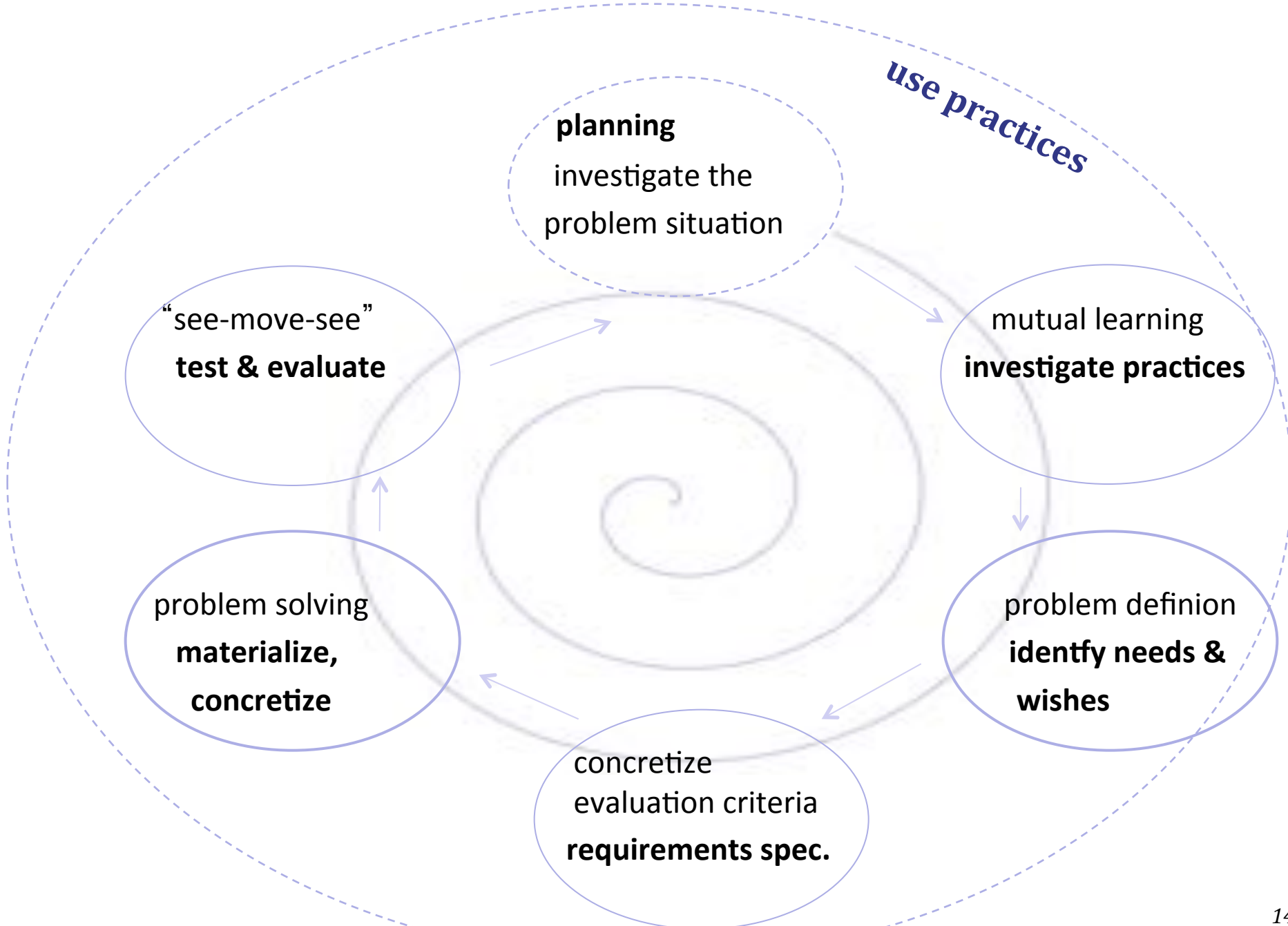
- *tacit knowledge*
- *prototyping*





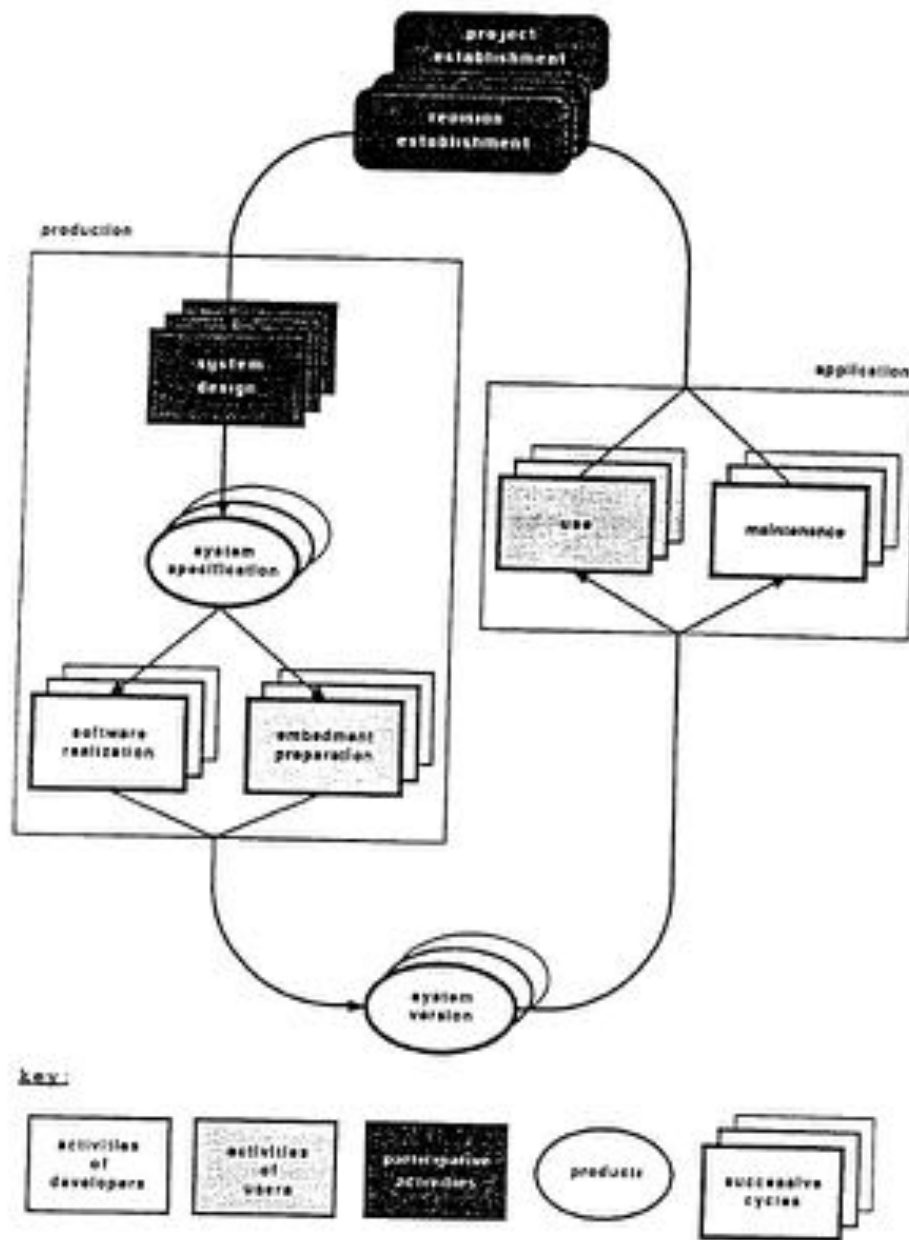
dimensions of design of IT





STEPS

Software
Technology for
Evolutionary
Participatory
Systems development



Christiane Floyd et al

Figure 1: Project Model of STEPS

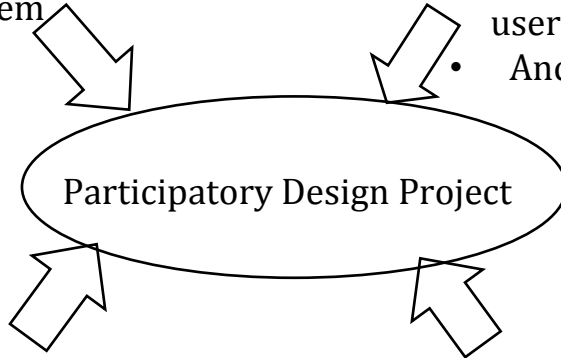
MUST

Concepts

- Vision Phases
- Technology usage
- Standard system
- Etcetera

Principles

- Coherent vision
- Genuine user participation
- First hand experience with users' practices
- Anchoring visions



Techniques and tools

- Observation
- Diagnostic mapping
- Dead Sea scrolls
- Hearing etc.

Project organisation

- Project establishment
- Strategic alignment
- Ethnographic analyses
- Visions development

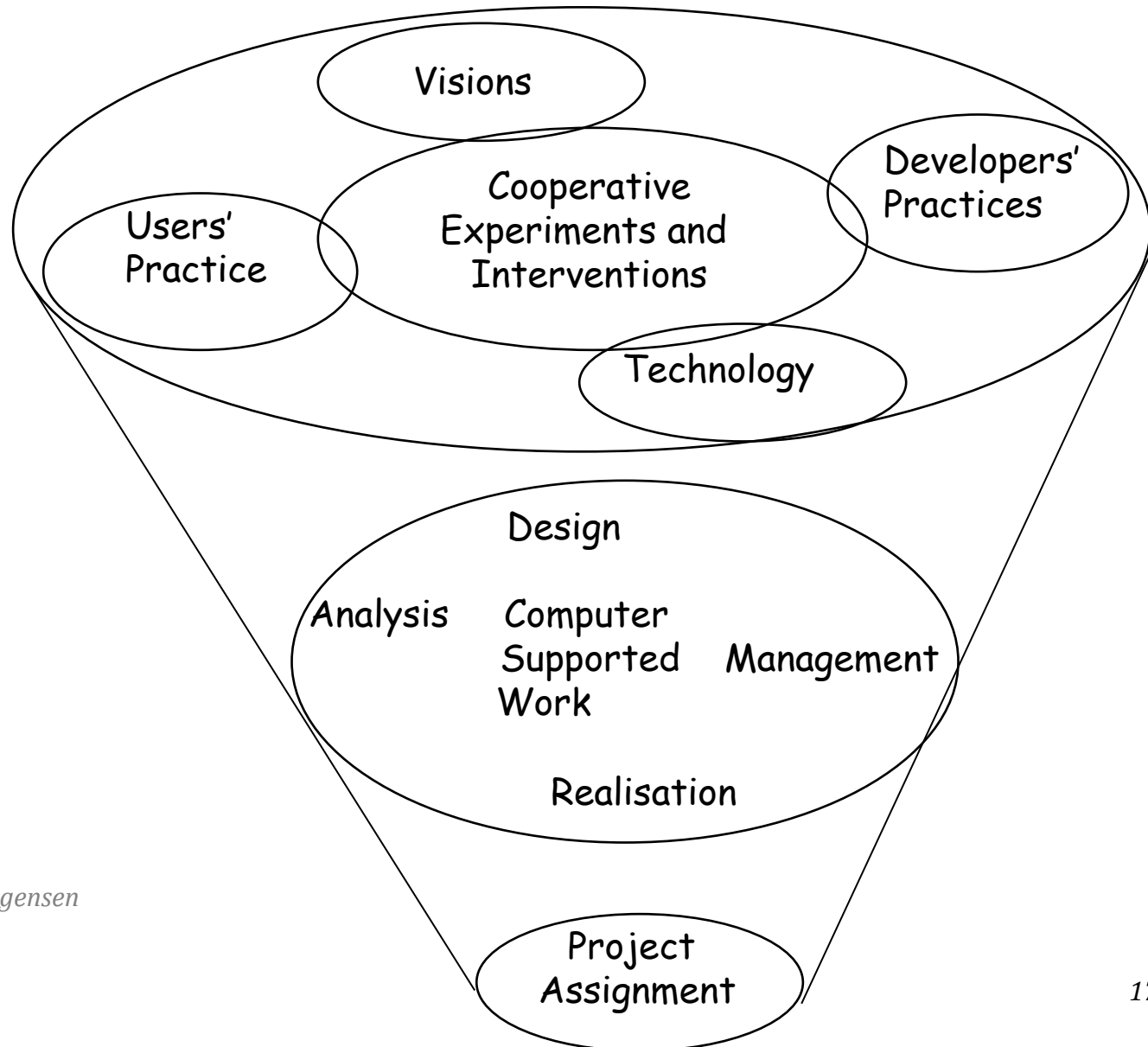
Metode for
forundersøgelse i
Systemudvikling –
og
Teori herom



Keld Bødker, Finn Kensing, Jesper Simonsen

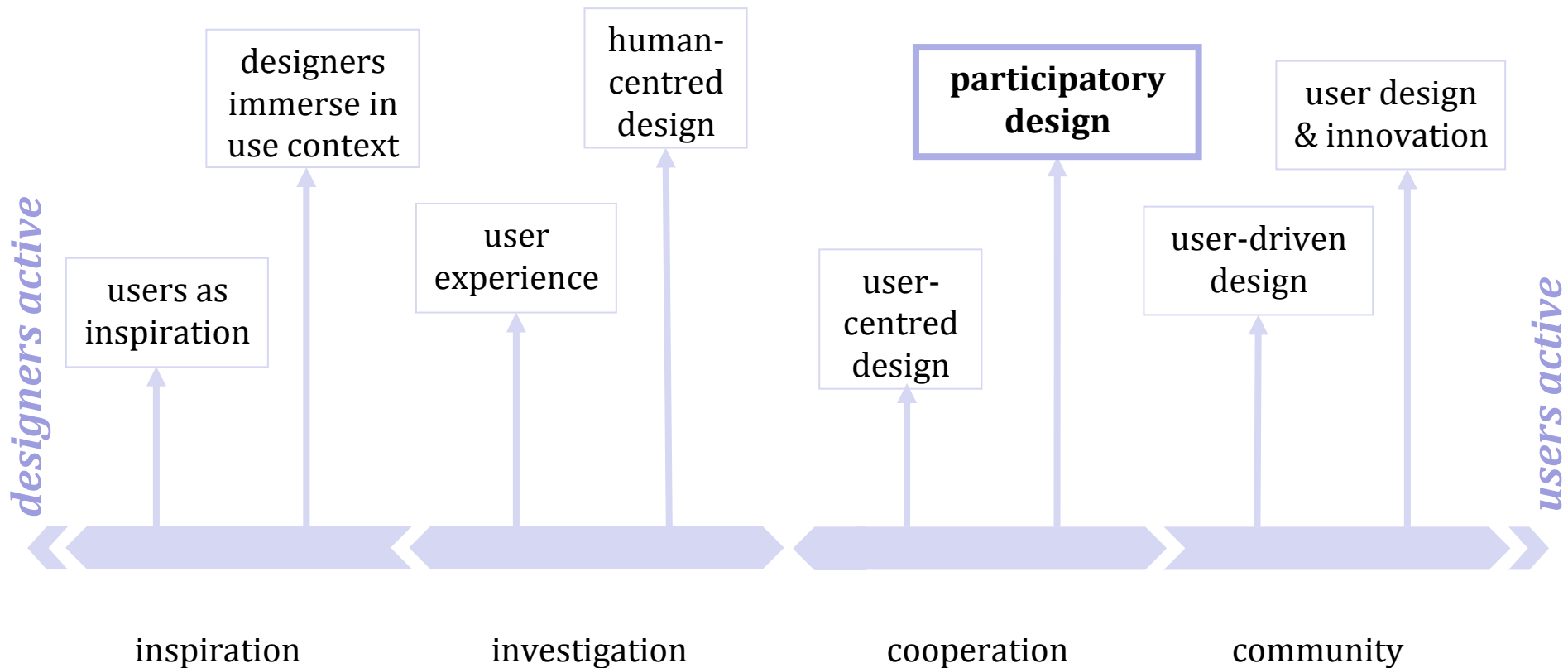
CESD

Cooperative
Experimental
Systems
Development



Morten Kyng, Kaj Grønbaek, Preben Mogensen

degrees of user inclusion in design

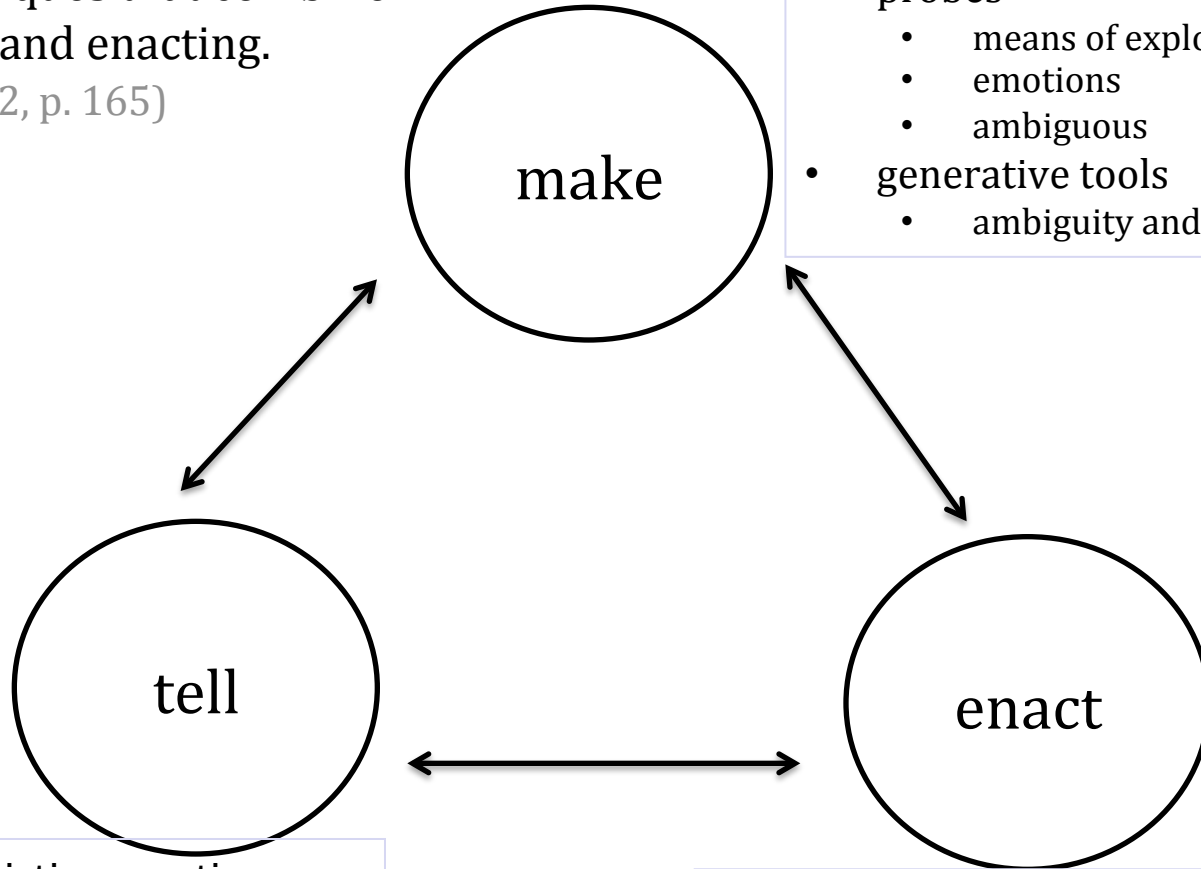


tools & techniques

- document analysis
- interview
- observation
- future workshop
- thinking aloud
- workshop of various kind
- scenario
- cartography
- prototyping
- brainstorming
- storyboard
- role play
- (cultural) probe
- walk through
- ...



A Participatory Design practice entails tools and techniques that combine telling, making and enacting.
(Brandt et al 2012, p. 165)



- participatory prototyping
 - mock-ups
 - paper prototypes
- probes
 - means of exploring experience
 - emotions
 - ambiguous
- generative tools
 - ambiguity and creativity

- telling about existing practices
- introducing change perspectives
- telling about needs and dreams
- balance between “what is” and “what could be”

- inspiration from theatre techniques
- scenarios
- performances with props, mock-ups & prototypes
- developing knowledge through practice 20

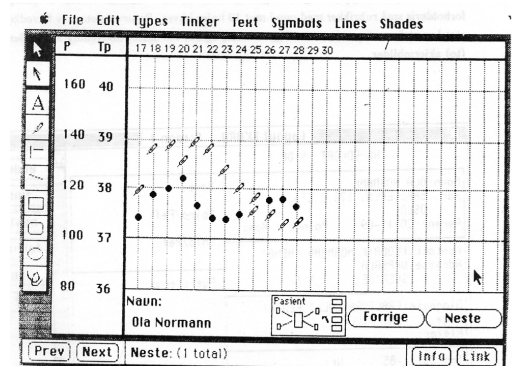
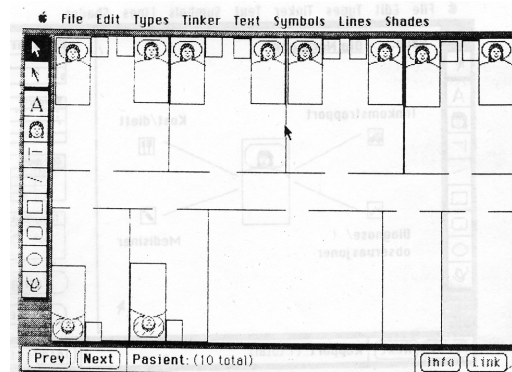
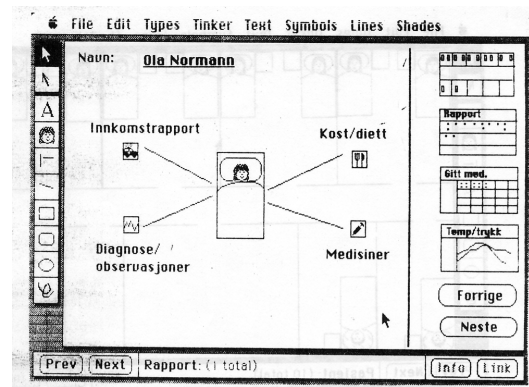
future workshop

Phase	2-day schedule	1-day schedule	1/2-day schedule
<u>Preparation phase</u> Designing the room, introducing the Theme and working method	1 h	½ h	1/2 h
<u>Critique phase</u> Creating a richer; common image Of the problematic situation	4 h	2 ½ h	1 h
<u>Fantasy phase</u> Generating visions of an improved Situation without restrictions	6 h	2 h	1 ½ h
<u>Realization phase</u> Bringing the visions down to earth and Developing a plan	4 h	2 h	1 ½ h
<u>Follow-Up Phase</u>			

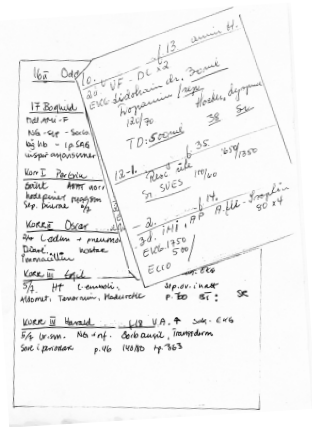
florence



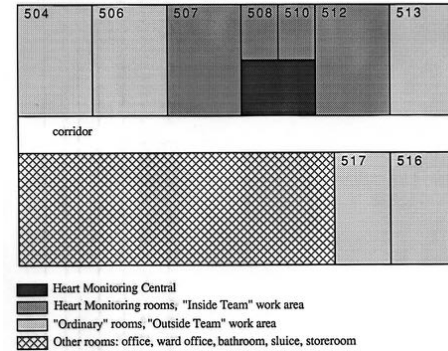
florence



florence



Map of the cardiological ward.



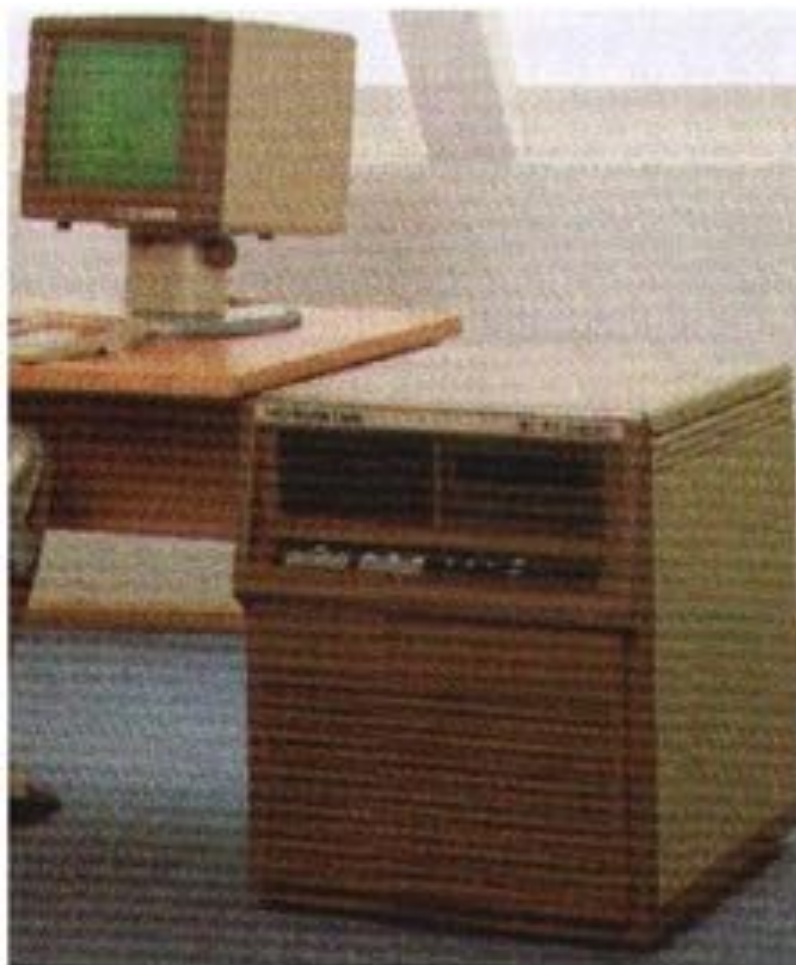
507-2 <NAME>, Hans Diag: AMI-F Hosp.hist: Arr. 24.1. Earlier post-traumatical epilepsy, uses fentanyl. Still bothered with some pain. Out of bed. Tries to stop smoking. IV: Inv:	508 <NAME>, Kjell Diag: Arr. 25/1 dyspnoe Hosp.hist: AMI and insuff. earlier. Now acute dyspnoe. Improved cond from morphin ogdial. Foleycat. Started on capoten. IV: Inv: 27/1: 3dayspr. Ecg	510 <NAME>, Gunnar Diag: Arr. 25/1 AMI stop Hosp.hist: Hypertension earlier. To day br.pain. Pulse and resp less in doctor's office. H.massage couple of min. Rubbing. Insuff. Tachycard IV: Inv: 27/1: 3dayspr. Ecg. stix	512-1 <NAME>, Thorbjørn Diag: Arr. 22.01. AMI-L small Hosp.hist: Been trough uncomplicated small AMI now. Proved leukemi lately. ST-twel V2-V3. Proved Chronic lymphatical leukemi. 3 days. IV: Inv:
507-1 <NAME>, Albert Diag: AMI-N Hosp.hist: Arr. 24.1. Earlier asthma bronciale. Felt br.pain since 21.1. Still be.g. arriving wted. ECG:AMI-N. Now bothered with insp.pain. To be activated IV: Inv:	WORK TEAM WORK TASKS		512-2 <NAME>, Torhild Diag: Arr. 26/1 88. AMI? H.insuff? Hosp.hist: AMI 77 and 81. Increasing AP since Nov.87. Insuff. lately. ACT: Br.pain since Spm. Dyspnoe. IV: Nitrodr. Inv: 27/1: 2d. ECG.stix

Kommando_ "ARBEIDSARK" versjon fra 21/10 -86

507-2 Navn: Fødselsår:-.. Diagnose:	508 Navn: Fødselsår:-.. Diagnose:	510 Navn: Fødselsår:-.. Diagnose:	512-2 Navn: Fødselsår:-.. Diagnose:
507-1 Navn: Fødselsår:-.. Diagnose:	Arbeidsgruppe: Sykepleier:..... Sykepleier:..... Sykepleier:..... Hjelpepleier:..... Legge:		512-1 Navn: Fødselsår:-.. Diagnose:

Kommandoer er: **Flytt pas**; **Endre arb.gruppe**; **Skriv ut**; **Pasient-info** og **Avslutt**

florence



507-2 <NAME>, Hans Diag: AMI-F Hosp.hist: Arr. 24.1. Earlier post-traumatic epilepsy, waxes febrile. Still bothered with some pain. Out of bed. Tries to stop smoking. IV: Inv:	-48	508 <NAME>, Kjell Diag: Arr. 25/1 dyspnoe Hosp.hist: AMI and insuff. earlier. Now acute dyspnoe. Improved cond from morphin ogdiural. Foleycat. Started on capoten. IV: Inv: 27/1: 3dayspr. Ecg	-19	510 <NAME>, Gunnar Diag: Arr. 25/1 AMI stop Hosp.hist: Hypertension earlier. To day br.pain. Pulse and resp.less in doctor's office. H.massage couple of min. Rubbing. Insuff. Tachycard IV: Inv: 27/1: 3dayspr. Ecg, stix	-27	512-1 <NAME>, Thorbjørn Diag: Arr. 22.01. AMI-L, small Hosp.hist: Been trough uncomplicated small AMI now. Proved leukemi lately. ST-swel V2-V3. Proved Cronical lymphatical leukemi. 3 days. IV: Inv:	-24
507-1 <NAME>, Albert Diag: AMI-N Hosp.hist: Arr. 24.1. Earlier asthma bronciale. Felt br.pain since 21.1. Still br.p. arriving ward. ECG:AMI-N. Now bothered with insp.pain. To be activated IV: Inv:	-10	WORK TEAM		WORK TASKS		512-2 <NAME>, Torhild Diag: Arr. 26/1 88. AMI? Hlinuff? Hosp.hist: AMI 77 and 81. Increasing AP since Nov.87. Insuff. lately. ACT: Br.pain since 5pm. Dyspnoe. IV: Nitrodr. Inv: 27/1: 2d. ECG.atix	-21

Figure 25: ND-100 and Tandberg terminal



The KOOLO app

KOOLO is an app designed to support young people in transition from pediatrics to adult medicine. The app is a result of design collaboration between KJULU and the Youth Council at Akershus University Hospital. Master student Nora Aasen led the first design workshop in 2013 and together with the Youth Council decided on and designed the first prototype with three main functions: a calendar for keeping track of appointments and events connected to young people's life as a patient, mood tracking, and an electronic version of the transition checklists implemented at Akershus University Hospital. Nora delivered her thesis in May 2014, and the KJULU team continued the work with the app together with the Youth Council. We started the development of the KOOLO app during Autumn 2015, and it is now available for download for both iOS and Android and offers three main functions:

- MoodLine and MoodMap to record, with photos and color-tagging, how you feel.
- Calendar to note and remember appointments and events that you want to keep separate from the general calendar app on your phone.
- Transition checklists to help you prepare for transition.

KOOLO is developed mainly for research purposes, but anyone can use it. Because the design and development of the app would not be possible without the competence, knowledge, and resources of all the participants, we do not consider it our own. We share the KOOLO app design and source code under the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International Public License and invite you to build forth on the work we have started.

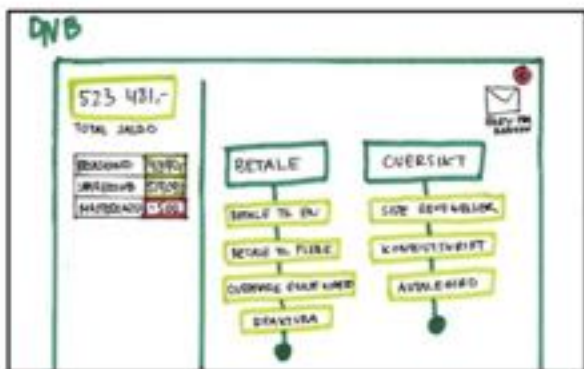


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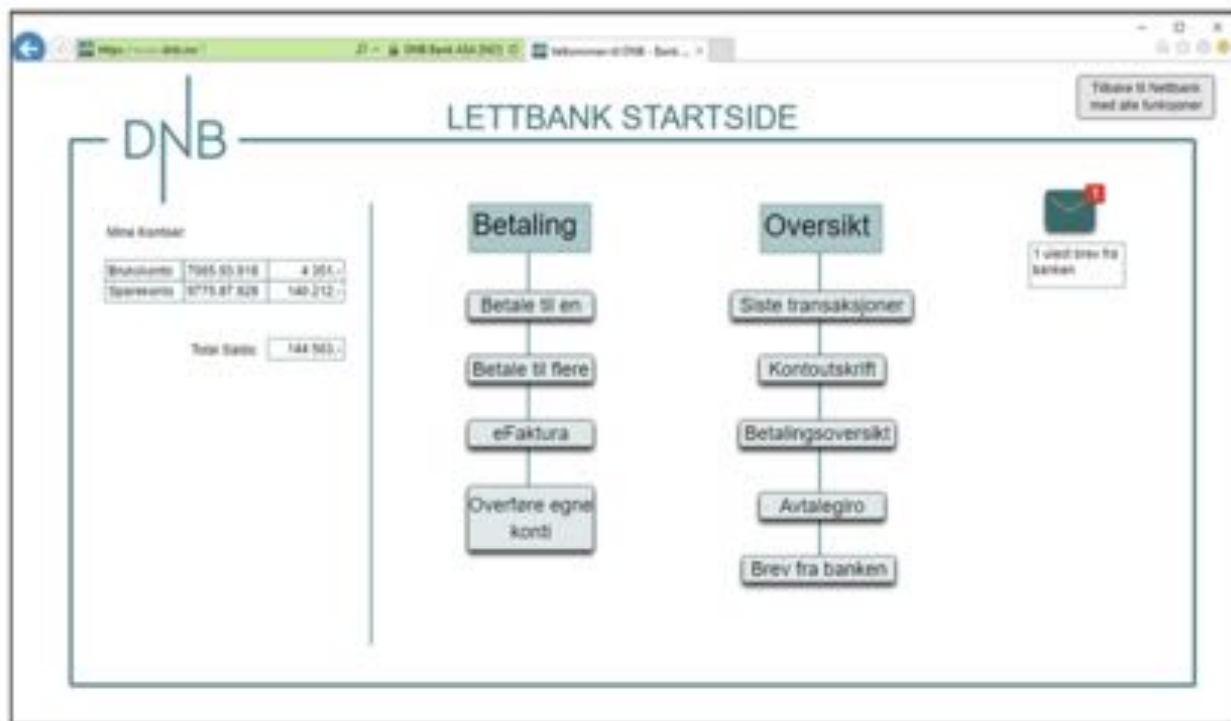
*Maja van der Velden,
Margaret Sommervold*

*Suhas Joshi
Espen Johnsen m.fl.*





Figur 59: Forslaget som deltagerne foretrakk



Figur 60: Det siste forslaget til startside



Karoline Stark

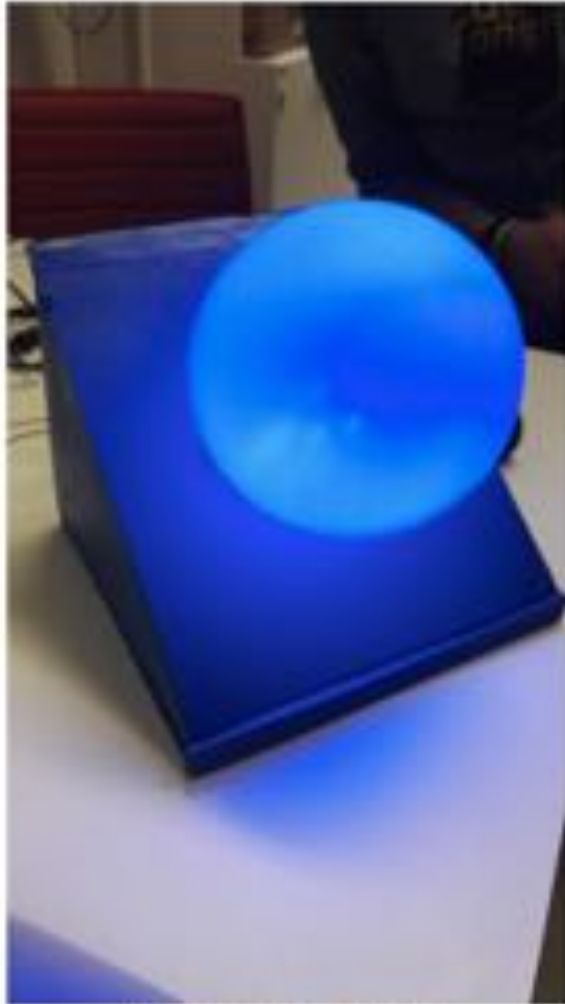


Figure 15 The lamp



Figure 16 the lamps light-modes

Red light (left): new message, Blue light (right): no message

Peter Havgar

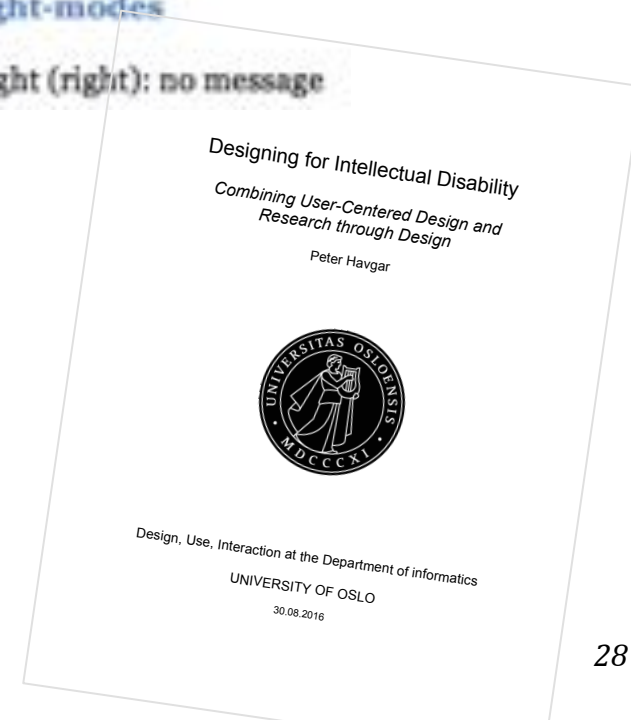




Figure 4: The 10 final designs manifested as functional prototypes. For each design of the two rows, the top image demonstrates the visible front of the design, while the bottom image reveals the underlying technical components.

Suhas Joshi



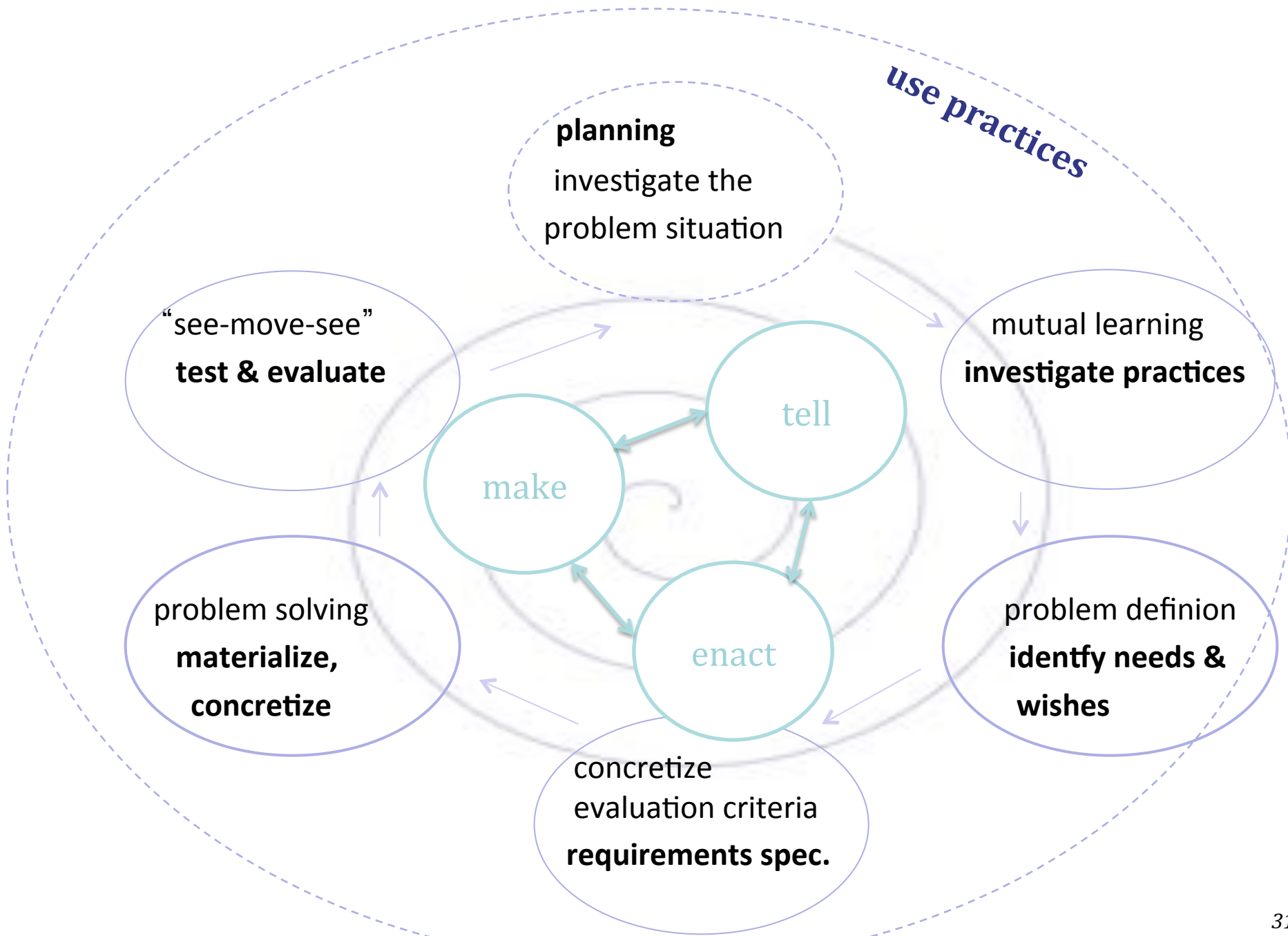
*Suhas Joshi &
Thomas Iversen*



Physical problem	Cry a lot (own suggestion)	Emotions
	Bleed nose-blood	
	Broken leg	
	Wounds on the skin	
Head pain	Head ache	
	Dizzy	
Vomiting	Pain in the belly	
	Vomit	
	Nausea	Social problems
	Phlegm in my mouth	
	Things smell bad/unpleasant	
	Nose feels tight	
	Cough	
	Warm or sweat	Unknownness
	Dry in the mouth	
	Pain in the mouth	I think it is my fault that I am sick
	Don't manage to eat	
	Sleep during the day	I don't get to know things I want to know
	Easily tired	
	Don't manage anything	Medication problems
	Cannot read	Disgusting to take med.



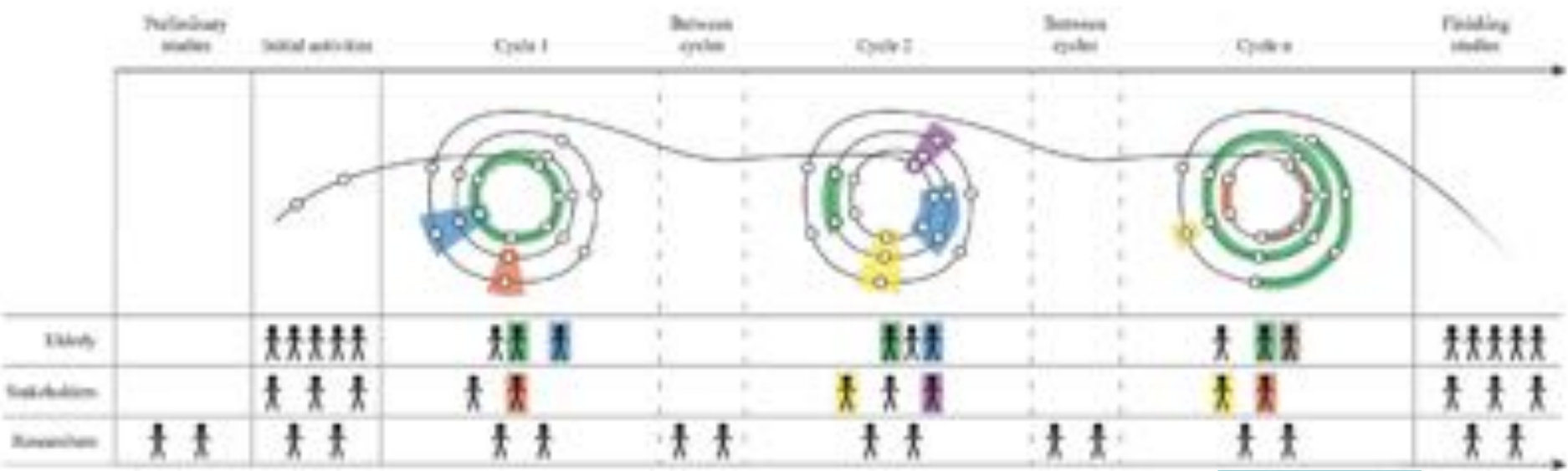
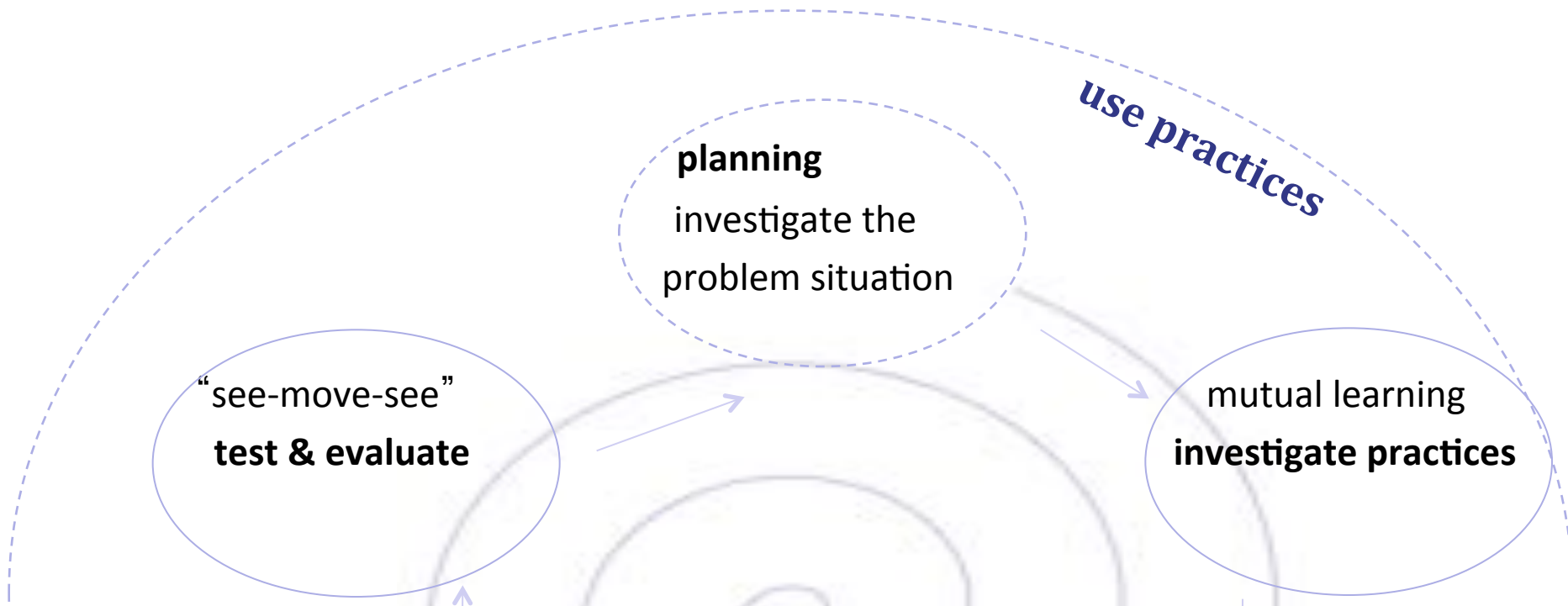
the **Sisom** project
2004-2006





Suhas Joshi





Suhas Joshi

Participatory Design

20 — 24
AUGUST 2018

FREE Portal to the Complete Archive of Participatory Design Conference (PDC) Proceedings

This portal gives you access to all papers published in all Participatory Design Conferences since the first conference held in 1990.

PDC 2018 proceedings will be added soon.

Use the search facility (to the right) to access all PDC proceedings.

The archive gives you FREE full text search and pdf-access to PDC-proceedings:

- 1990 through 2002
- 2004 (volume 2) and 2004 (volume 1)

The archive gives you FREE text search to title, author, and abstract and full text pdf-access (through ACM Digital Library) to PDC-proceedings:

- 2004 (volume 1) and 2004 (volume 1)
- 2006 through 2016 (volume 1 and volume 2)

Search tips:

- Search terms are case-insensitive
- Common words are ignored
- By default only articles containing all terms in the query are returned (i.e., AND is implied)
- Combine multiple words with OR to find articles containing either term; e.g. education OR research
- Use parentheses to create more complex queries; e.g. archive ((journal OR conference) NOT (these))
- Search for an exact phrase by putting it in quotes; e.g. "open access publishing"
- Exclude a word by prefixing it with - or NOT; e.g. online -politics or online NOT politics
- Use * in a term as a wildcard to match any sequence of characters; e.g. a result normally would match documents containing "sociological" or "societal"

Participatory Design Conference 2018

20 — 24
AUGUST 2018

Monday 20th Aug | Tuesday 21st Aug | Wednesday 22nd Aug | Thursday 23rd Aug | Friday 24th Aug

08:00	Registration 08:00 - 09:00 (and coffee)	Registration 08:00 - 09:00 (and coffee)	Registration 08:00 - 09:00 (and coffee)	Registration 08:00 - 09:00 (and coffee)	Registration 08:00 - 09:00 (and coffee)
09:00	Workshops 09:00 - 12:30	Workshops 09:00 - 12:30	Welcome 09:30 - 10:30 Aperturas Subterráneas	Full Paper Track (3) 09:00 - 13:30 LEARNING & EDUCATION	Full Paper Track (5) 09:00 - 11:00 FRONT BACK AND THE ROLES IN BETWEEN
10:00	Workshops 10:30 - 12:00	Workshops 10:30 - 12:00	Full Paper Track (6) 10:30 - 12:00 POWER	Full Paper Track (4) 11:00 - 13:00 COMPLICATED THINGS	Short Paper Track (2) 11:30 - 11:50 POLITICS
11:00	Workshops 11:30 - 12:00	Workshops 11:30 - 12:00	Local participation session 14:00 - 17:00	Full Paper Track (2) 14:45 - 16:15 COMMONINGS	Short Paper Track (2) 11:50 - 12:10 URBAN ONL.
12:00	Lunch 12:30 - 13:30	Lunch 12:30 - 13:30	Full Paper Track (1) 13:00 - 14:30	Situated Actions 14:00 - 15:30	Keynote 14:00 - 15:00 Norjag Mawes
13:00	Workshops 13:30 - 17:00	Workshops 13:30 - 17:00	Full Paper Track (7) 13:00 - 14:30	Panel, inclusivity in PD + David Hakken Participatory Design Grant	Conclusion Panel
14:00	Workshops 14:00 - 17:00	Workshops 14:00 - 17:00	Full Paper Track (8) 14:30 - 16:30	Business Meeting 16:30 - 18:00	

The roles of adult-participants in the back- and frontstage work of Participatory Design processes involving children

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ACM Reference format:
K. Dreesen and S. Schepers. 2018. The roles of adult-participants in the back- and frontstage work of Participatory Design processes involving children. In *Proceedings of the 15th Participatory Design Conference - Volume 1*, August 20-24, 2018, Aarhus and Oslo, Norway. ACM, New York, NY, 1-10. <https://doi.org/10.1145/3210888.3210912>

ABSTRACT
A vast body of literature is dedicated to the roles of designers and participants in Participatory Design (PD) processes and more specifically to the roles both hold in frontstage design processes. By devoting "Making Things" a backstage work process in which a collaboration with a local youth work organization is set up to design workspaces together with children and youth workers, we focus on the different roles of adult-participants in the front- and backstage activities of these processes. Drawing from an existing ethnography of such processes, we identify the different roles of youth workers ("MAs") in the front- and backstage activities of "Making Things". The aim of this paper is to identify the roles of youth workers and to analyze how a team of researchers, the paper contributors to a growing interest for these backstage activities and the importance of relational agency and systemic agreements in PD processes.

CCS CONCEPTS
Human-centered computing → Participatory design

KEYWORDS
Participatory Design, children, backstage, adult-participant roles, FAAL

Micro-Ethics for Participatory Design with Marginalised Children

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ABSTRACT
Marginalised children are uniquely vulnerable within western societies. Conducting participatory design research with them comes with particular ethical challenges, some of which we illustrate in this paper. Through several examples across two different participatory design projects (one with autistic children, another with visually impaired children), we reflect on the often overlooked tensions on the level of micro-ethics. We argue we are often required to rely on multiple moral frames of reference. We discuss issues that the immediate interaction between researchers and marginalised children in participatory projects can bring and offer an understanding of how micro-ethics manifest in these collaborations. We contribute to a theoretical exploration of ethical encounters based on empirical grounds, which can guide other researchers in their participatory endeavours.

CCS CONCEPTS
Human-centered computing → Participatory design; Accessibility theory, concepts and paradigms; Social and professional topics → Codes of ethics

KEYWORDS
Children; Marginalization; Participatory Research; Ethics

ACM Reference format:
Katta Spiel, Emeline Brulot, Christophor Frauenberger, Gilles Bailly, and Geraldine Fitzpatrick. 2018. Micro-Ethics for Participatory Design with Marginalised Children. In *Proceedings of the 15th Participatory Design Conference - Volume 1*, August 20-24, 2018, Aarhus and Oslo, Norway. ACM, New York, NY, 1-10. <https://doi.org/10.1145/3210888.3210912>

Practices of Readiness: Punctuation, Poise and the Contingencies of Participatory Design

Yoko Akama, Ann Linstead
registration
practical information
call for participation

Full paper track 5: FRONT, BACK AND THE ROLES IN BETWEEN

Friday 24th of August
9:00 - 11:00
Hasseløst University, in the Old Prison

Katrien Dreesen · Selina Schepers
The roles of adult-participants in the back- and frontstage work of Participatory Design processes involving children →

Alice Victoria Brown, Jaz Heejeong Choi
Refugee and Post-Trauma Journeys in the Fuzzy Front End of Co-Creative Practices →

Nerita Ivari, Marianne Kinnula
Empowering Children through Design and Making: towards Protagonist Role Adoption →

Katta Spiel, Emeline Brulot, Christophor Frauenberger, Gilles Bailly, Geraldine Fitzpatrick
Micro-Ethics for Participatory Design with Marginalised Children →

methods & techniques for PD & design of IT

- application area
- perspective / world view
- guidelines
 - techniques
 - tools
 - principles for organization

- having a say
- mutual learning
- co-construction

design is forming ideas in some material:

users can participate in getting and selecting ideas, giving them a material form, and experimenting with materials