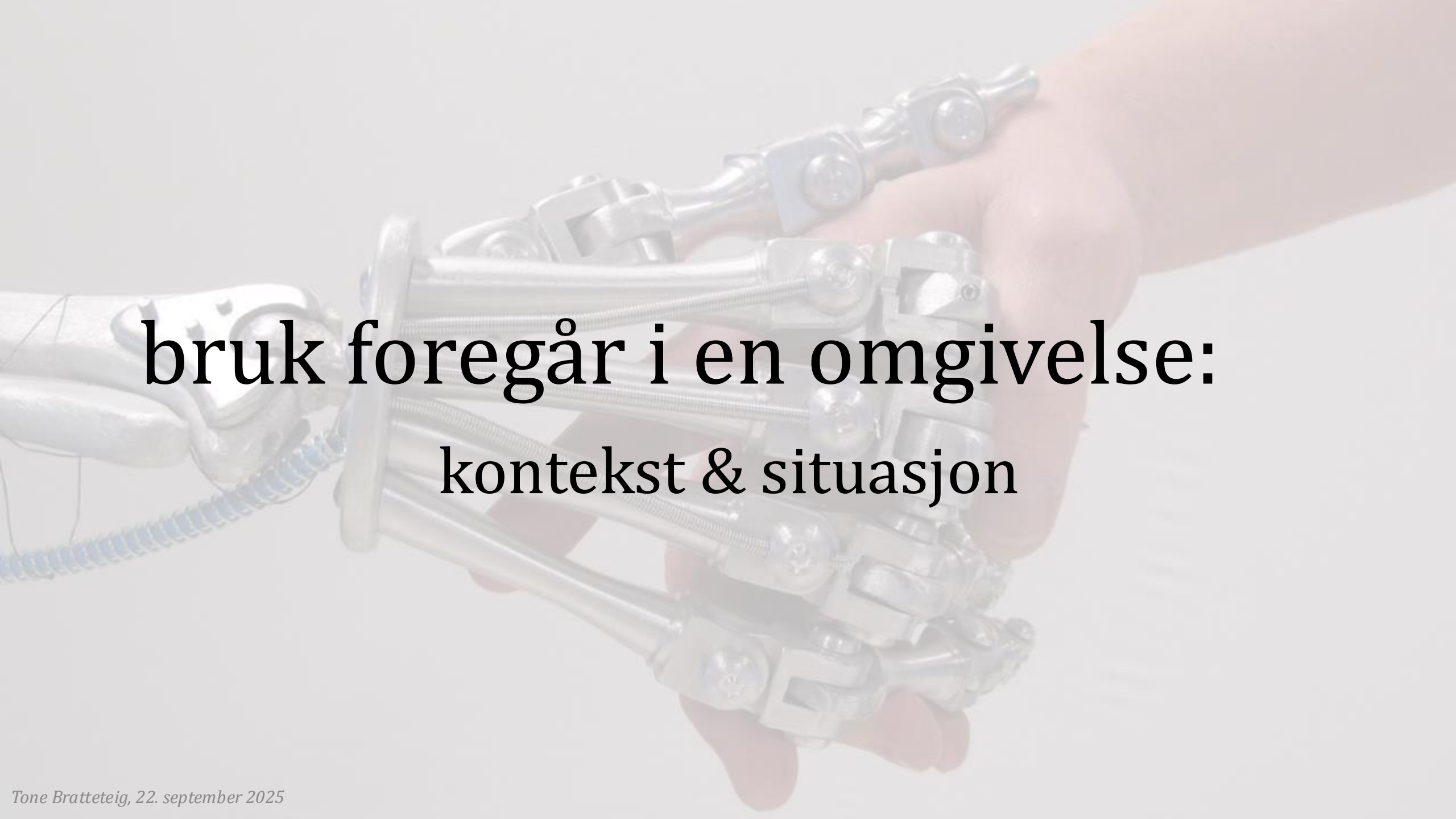


A hand holding a prosthetic arm with a complex metal joint structure. The background is a light, neutral color.

bruk foregår i en omgivelse:
kontekst & situasjon

i dag: bruk i relasjon til omgivelsene

bruk

- er alltid bruk av «noe» – om objekter, verktøy og maskiner

(Redström & Wiltse / Redström)

et digitaliserings-perspektiv

→ forskjellen på fysiske og digitale objekter

- er noe man kan – om kunnskap og digital kompetanse

(Moe / Klein & Hoffman)

et fenomenologisk perspektiv

→ hvordan vi forstår verden og lærer

- er noe man gjør – om aktivitet og arbeid

(Oskarsen / Engeström)

et prosessuelt perspektiv

→ hvordan oppgaver er sammenvevd

- foregår i en omgivelse – om kontekst og situasjon

(Dourish / Robertson & Loke & Hovde om organisasjoner)

et fenomenologisk perspektiv

→ hvordan vi handler i verden

- + inngår i komplekse økologier og systemer

(uke 43)

en situasjon

er en helt bestemt, konkret konstellasjon av:

- 1) en eller flere personer, enkeltpersoner eller grupper
- 2) som har ulike interesser, verdier, identiteter og behov
- 3) og som utfører gjøremål, oppgaver eller aktiviteter
- 4) både rutiner og unntak
- 5) under bestemte fysiske, sosiale og kulturelle forutsetninger (f.eks. ved å bruke ting og materialer)
- 6) i en bestemt fysisk, kulturell og sosial kontekst.

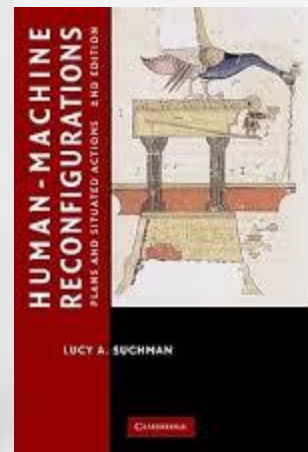
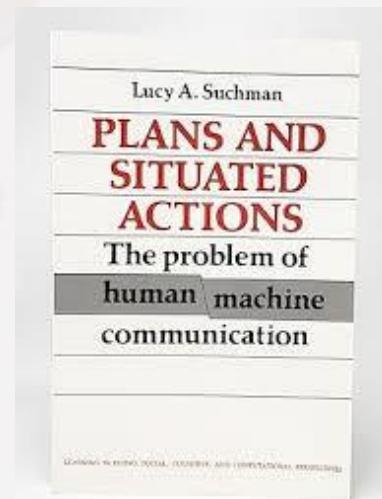
(ref. Svein Hovde)



handlinger er alltid situasjonsbestemte «situerte»

situated actions “underscores the view that every course of action depends in essential ways on its material and social circumstances.” (p70)

“If one intends to buy bread, for instance, the knowledge of which bakers are open and which are shut on that day of the week will enter into the generation of one’s plan of action in a definite way; one’s knowledge of local topography (and perhaps of map-reading) will guide one’s locomotion to the selected shop; one’s knowledge of linguistic grammar and of the reciprocal roles of shopkeeper and customer will be needed to generate that part of the action-plan concerned with speaking to the baker, and one’s financial competence will guide and monitor the exchange of coins over the shop counter.” (p.44)



situasjonsbestemte handlinger

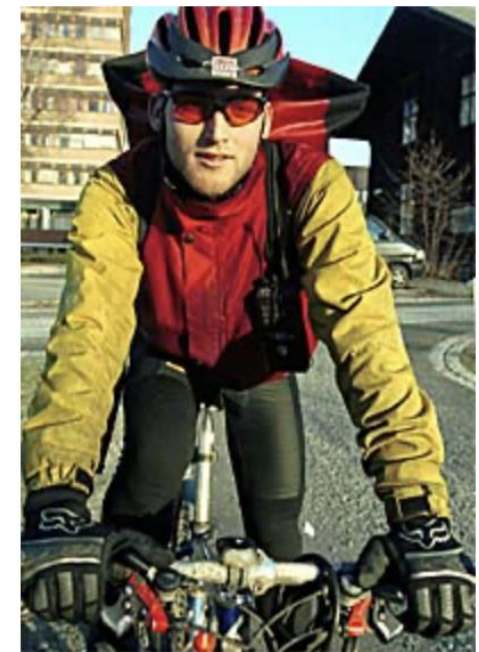


Hva handler sosiologien om?

Hvordan vi ordner seg når mye er ordnet på forhånd

Hvordan vi velger under betingelser vi ikke selv har valgt

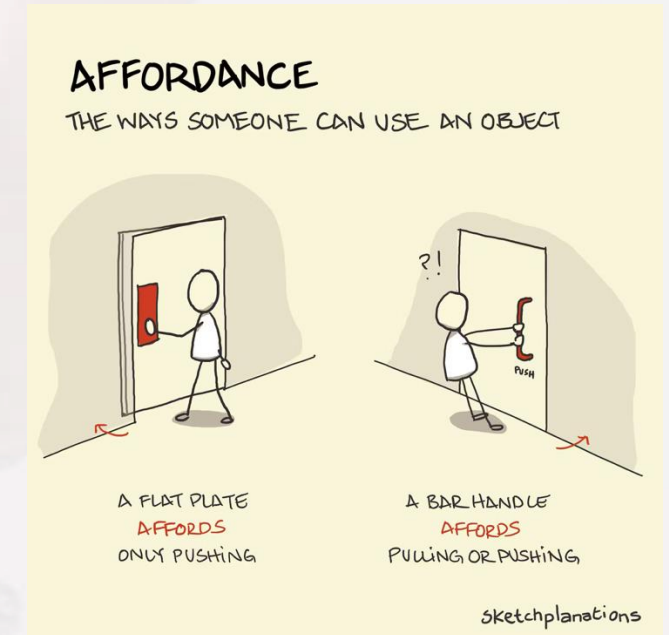
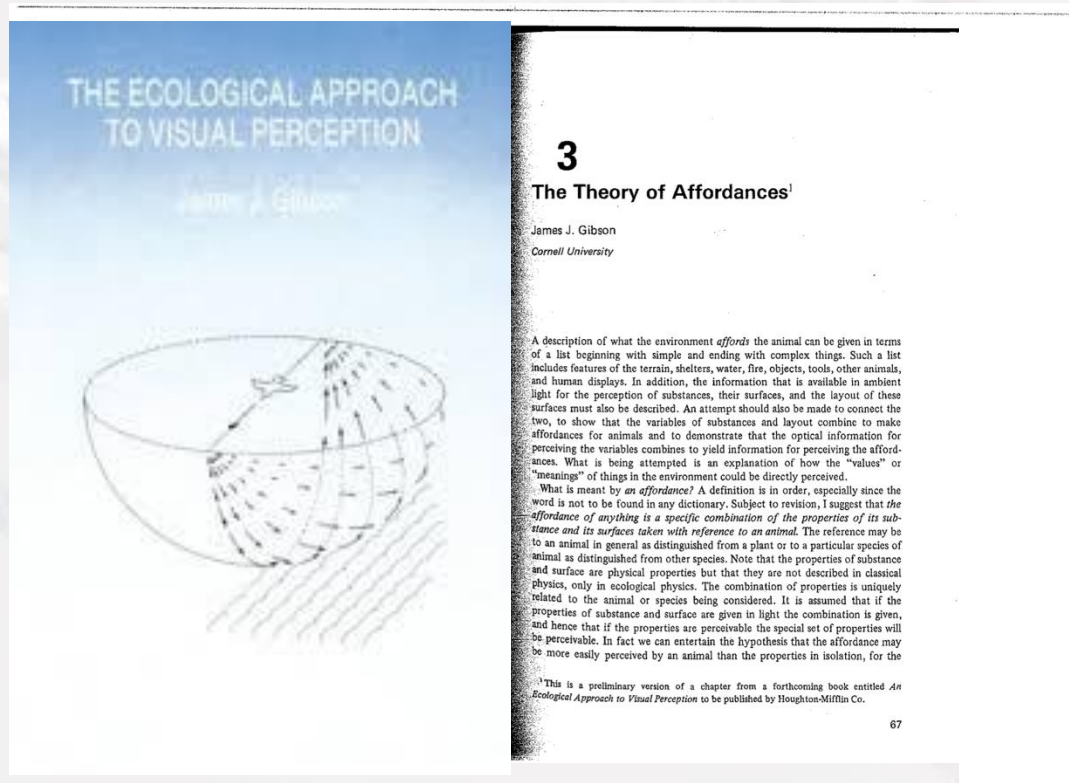
Svein Hovde



Et sykkelbud bør kunne ta telefonen midt i en oppbremsing. (Foto: Ståle Skogstad ©)

*Jo Herstads PhD om sykkelbud
(bilde fra Apollon)*

situasjonsbestemte handlinger i omgivelsene



affordances: hvordan omgivelsene inviterer til / tilbyr handlinger

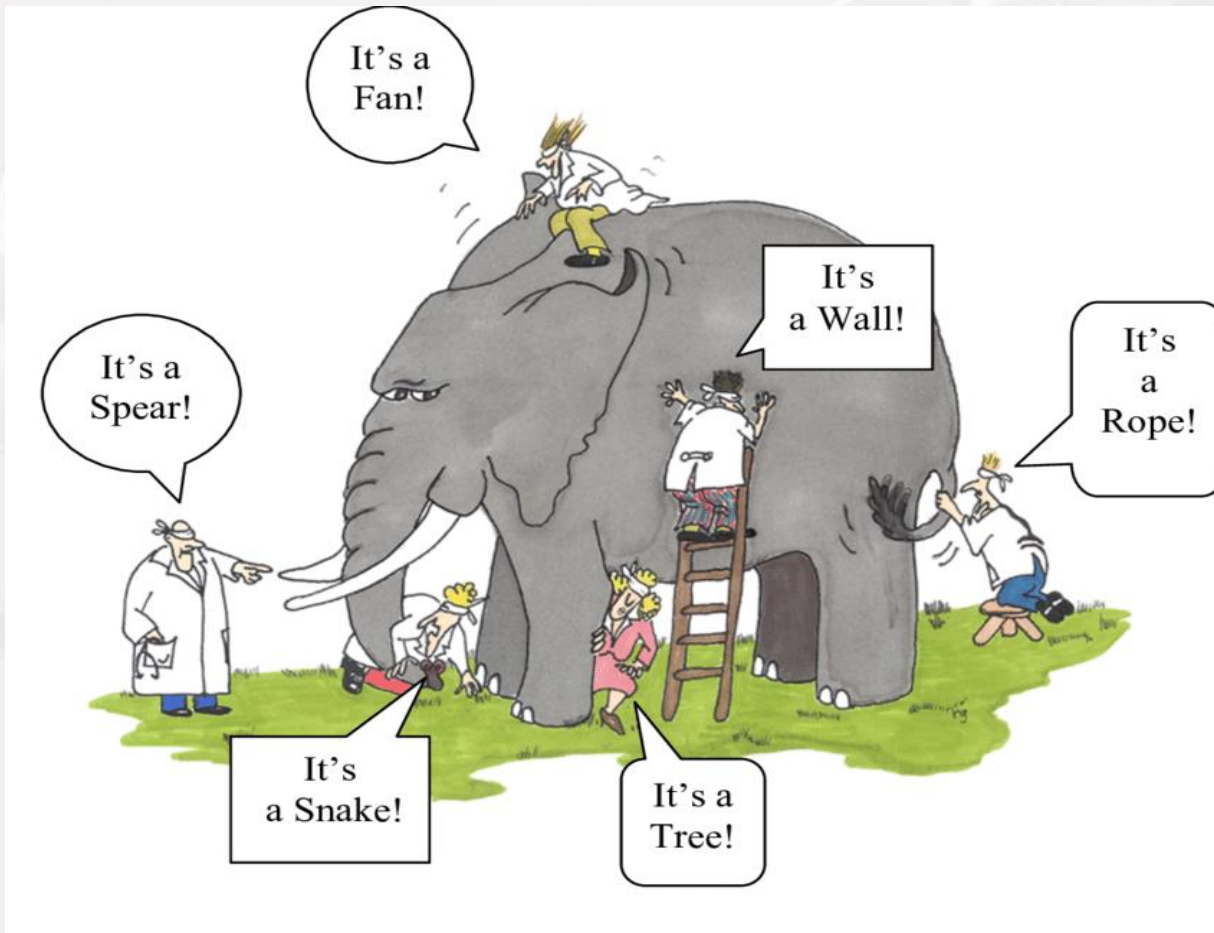
kontekst

= det som omgir teksten, sammenheng, hvordan artefakten er sammenvevd med omgivelsene

samme artefakt – forskjellige kontekster (omgivelser)

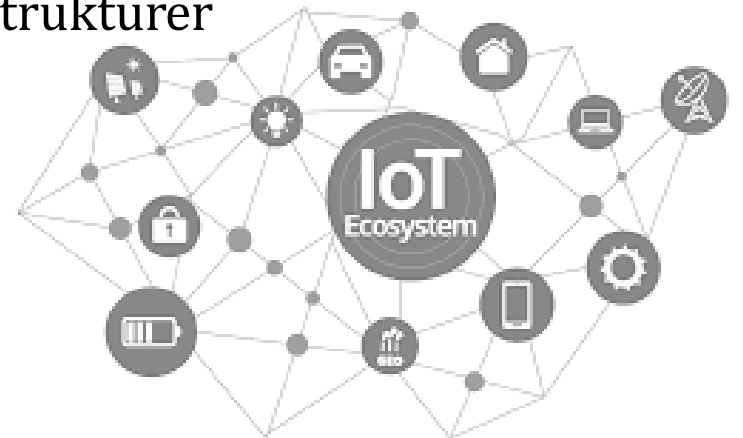


kontekst – den større helheten vi inngår i



artefakter og aktiviteter inngår ofte også i en større teknisk helhet

- økologier
- systemer
- nettverk
- infrastrukturer
- ...



The boundaries between 'the digital' and our everyday physical world are dissolving as we develop more physical ways of interacting with computing. This forum presents some of the topics discussed in the colorful multidisciplinary field of tangible and embodied interaction.

Eva Hornecker, Editor

fra IN1060

Habituated Objects Everyday Tangibles That Foster the Independent Living of an Elderly Woman

Margot Brereton

Queensland University of Technology | m.brereton@qut.edu.au

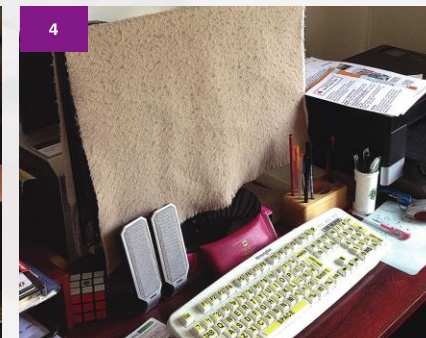
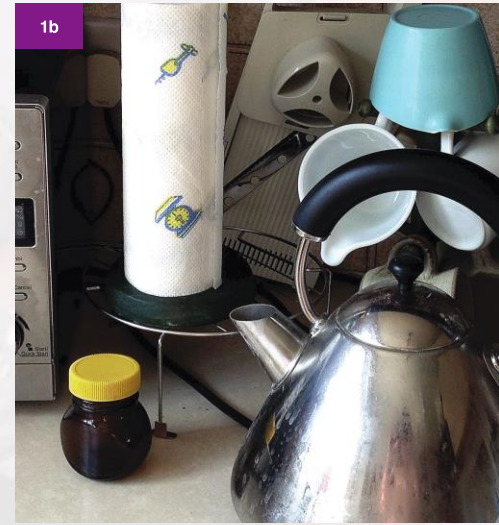
I recently visited an 82-year-old woman, Maria, the mother of a good friend whom I have known over the years. This visit got me thinking about tangible and embodied interaction in a different way: from the perspective of the everyday objects that inhabit and augment our lives and how they support independence and agency as we age. Maria is partially sighted and still getting used to living with an artificial hip she had implanted about a year ago. Still, she seems to navigate her fairly cluttered home with remarkable ease. And, like many of us, she wants to maintain her independence and control her own destiny for as long as she can. Many discussions about supporting independent living for the elderly begin with monitoring, and yet the concepts of monitoring and independence are rather uneasy bedfellows. I began to contemplate just how she lives with and fosters her own independence through all of her things and what we might learn from that for designing for the emerging Internet of Things.

Maria has many objects, devices, and technologies she has adopted and adapted to support her living, and these in turn shape how she

lives. I call these things *habituated objects* because she has incorporated them into her routines and her home, and they have in turn played a role in shaping how she lives in her home. I asked her what she thought were her most important and favorite objects. It's a diverse and interesting list: magnifying glasses, shoes, tea-bag squeezer, big-screen TV, computer, key-on-a-string, free bus pass, sturdy shoes, and so on.

These important things might give a little insight into tangible and embodied interaction design, not from the perspective of the young and healthy visiting museums and collaborating in workplaces, but from the perspective of one older woman in her actual aging body with all of its specific capabilities and time-worn habits in the home she has adapted to suit her living for the past 15 years.

Maria grew up during World War II in the U.K. and knows what it was like to live on rations. She doesn't like to waste anything. There is a paper bag on the kitchen counter that I would be tempted to throw out, but is there in case she buys bananas—they keep better in a paper bag like that. There



- Figure 1. (a) The kettle, tea, and tea-bag squeezer by the bed are all used for the habitual morning tea in bed. (b) The marmite jar that holds two portions of milk is taken upstairs at night in preparation for the morning tea in bed.
- Figure 2. Magnifying glasses are placed in strategic locations around the house. (a) The magnifying glass with built-in light is placed on a small table near where the bus timetables are kept. (b) A large magnifying glass kept in the kitchen for reading labels. (c) A magnifying glass placed near the couch.
- Figure 3. A key on a string by the windowsill is let down to welcome visitors.
- Figure 4. The computer monitor is often switched off and covered when not in use.

There is a small Marmite jar next to the kettle. I would recycle that one, but she tells me it's the perfect size for about two servings of milk (s. 20-22)

Paul Dourish

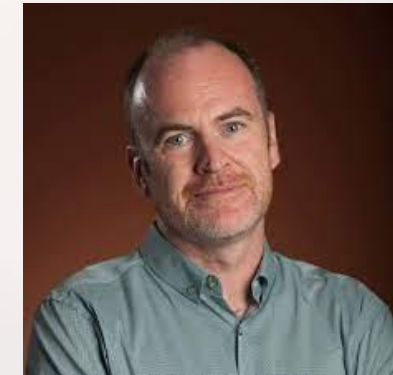
What we talk about when we talk about context

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Abstract The emergence of ubiquitous computing as a new design paradigm poses significant challenges for human-computer interaction (HCI) and interaction design. Traditionally, HCI has taken place within a constrained and well-understood domain of experience—single users sitting at desks and interacting with conventionally-designed computers employing screens, keyboards and mice for interaction. New opportunities have engendered considerable interest in “context-aware computing”—computational systems that can sense and respond to aspects of the settings in which they are used. However, considerable confusion surrounds the notion of “context”—what it means, what it includes and what role it plays in interactive systems. This paper suggests that the representational stance implied by conventional interpretations of “context” misinterprets the role of context in everyday human activity, and proposes an alternative model that suggests different directions for design.

1999), embodied interaction (Dourish 2001), and more. Although the nomenclature varies, the central ideas are largely the same. Extrapolating from current trends in the development of low-cost and low-power devices, ubiquitous computing proposes a digital future in which computation is embedded into the fabric of the world around us. In this world, our primary experience of computation is not with a traditional desktop computer, but rather with a range of computationally-enhanced devices—pieces of paper, pens, walls, books, hammers, etc. The opportunity implied by this ubiquitous computing vision is to capitalise on our familiarity, skill and experience in dealing with the everyday world around us. The world can become an interface to computation, and computation can become an adjunct to everyday interaction.

There are many significant research issues that this vision encompasses, but two have become particularly prominent in HCI. The first is the mutual relationship between physical form and activity; how we can design



What we talk about when we talk about context

- en diskusjon fra et fenomenologisk perspektiv med med ubiquitous / context-aware computing

kontekst som **representasjon** antar at

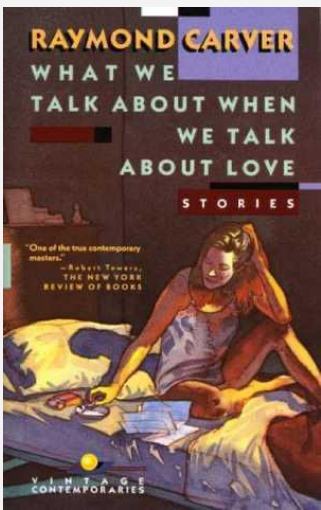
- kontekst som en form for informasjon
- konteksten er avgrensbar
- konteksten er stabil
- konteksten kan skilles fra aktiviteten

(= en positivistisk tilnærming)

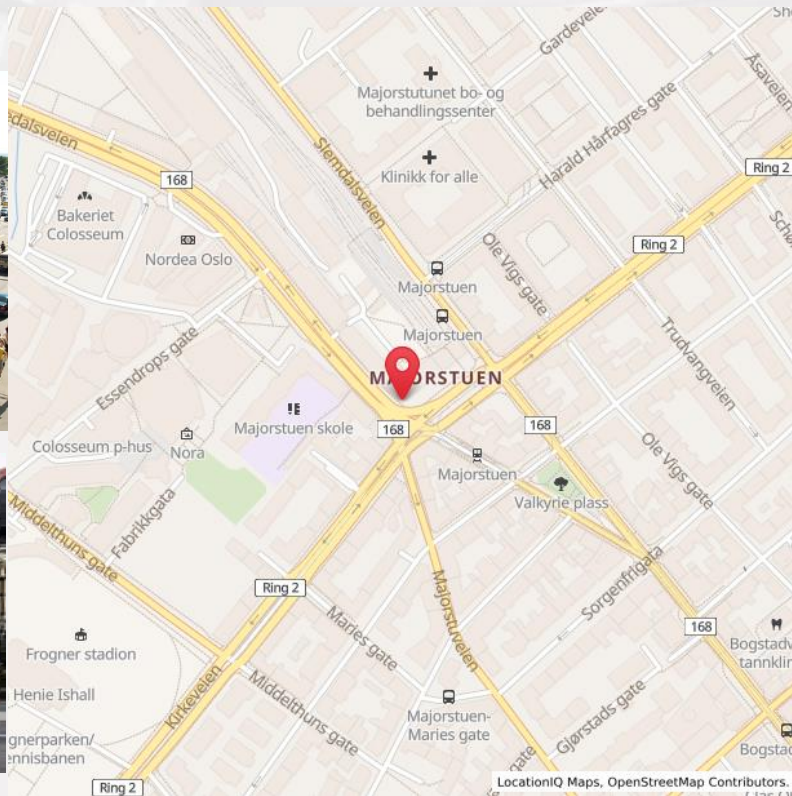
kontekst som **interaksjon** hevder at

- kontekst er relasjonen mellom objekter / aktiviteter
 - konteksten defineres kontinuerlig
 - konteksten forandrer seg med det som skjer
 - konteksten oppstår fra aktiviteten
- = kontekst er noe folk gjør

(= en fenomenologisk tilnærming)



What we talk about when we talk about context



kontekst som **interaksjon** hevder at

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(= en fenomenologisk tilnærming)

What we talk about when we talk about context

Viktige kilder til forståelse (parallele tenkemåter)

- etnometodologi: vår felles virkelighet følger av hva vi gjør, vi lager orden
- «being ordinary»: hverdagen er vanlig og tas for gitt (for et fellesskap), vi tenker oss ikke om
- praksis: en kompetent aktivitet, et perspektiv på meningsfylt handling
- kontekst er en «emergent property» i situasjoner der vi interagerer
- kontekstuelle egenskaper gis mening gjennom og i praksis
- kontekst kan aldri tas ut av det sosiale og kodes
- kontekst og aktivitet er gjensidig avhengig av / definerer hverandre
- ubiquitous computing => unremarkable computing

On 'Meanings' of Acts and What is
Meant and Made Known by What
is Said in a Pluralistic Social World

RAGNAR ROMMETVEIT · Oslo University

1 Introduction

Mainstream sociological, psychological, sociolinguistic and psycholinguistic research is, in my opinion, pervaded by false, though very seductive, monistic assumptions about our language and the world. Much of what I have recently written on language, thought and communication (see, for example, Rommetveit 1978 and 1979) may, in fact, be conceived of as crusades against such explicitly held and/or tacitly endorsed

Designing Situations

Toni Robertson

Faculty of Engineering and Information
Technology

University of Technology, Sydney

PO Box 123, Broadway, NSW, AUSTRALIA

Toni.Robertson@uts.edu.au

Lian Loke

Faculty of Engineering and Information
Technology

University of Technology, Sydney

PO Box 123, Broadway, NSW, AUSTRALIA

Lian.Loke@uts.edu.au

ABSTRACT

This paper extends the analytic framework Suchman used in *Plans and Situated Actions* by using it as a tool in the design of interactive, immersive environments that rely on human movement as input. We describe the historical and methodological background to Suchman's framework and the impact of her analysis on the development of HCI and related fields. We provide two examples of its use to support prototype evaluation, design reflection and generative and iterative design. Suchman's recognition that computers act on the basis of resources within their situations, just as people act in accord with the resources of theirs, broadens our focus from the design of interfaces to the design of situations within which interaction between people and computers can occur. The tool, and the methodological and theoretical commitments embedded within it, contribute to the design of emerging technologies and to current discussions about approaches to design within shifting paradigms of HCI.

It is over twenty years since Suchman first published *Plans and Situated Actions* (P&SA). The book quickly assumed classic status and continues to be highly influential in the evolving field of human computer interaction (HCI), as well as computer supported cooperative work (CSCW), participatory design (PD) and related areas. In a discussion of the impact of P&SA on the development of HCI, Carroll (2003) commented that it "has been reconstructed as an emblem for sweeping currents of paradigmatic development in HCI, many of which Suchman herself subsequently helped to launch" (p. 273). He makes the crucial point that it is the reconstructions of P&SA that may be its most significant contributions to our understanding of HCI.

More recently, Harrison, Tatar and Sengers (2007) suggested that a number of disparate approaches such as PD, situated action, ethnography and critical design might be usefully understood as united in a coherent third wave, or paradigm, in HCI.



Designing situations

Suchman's situated action

- interaction needs to achieve «mutual intelligibility»
- «planned, purposeful actions are inevitably situated actions. By situated actions, I mean simply actions taken in the context of the particular, concrete circumstances. ... The circumstances of our actions are never fully anticipated and are continuously changing around us.» (LS: 26)
- TR & LL bruker Suchmans enkle rammeverk

The User		The Machine	
Actions not available to the machine	Actions available to the machine	Effects available to the user	Design rationale

Figure 1. Suchman's analytic framework

- hva om både mennesker og maskiner handler i den konteksten de oppfatter?

evaluering av prototype

The User		The Machine		
Actions not available to the machine		Actions available to the machine	Effects available to the user	Game context
User activity	Movement description			
Awaiting start of game.	Ready position: Standing feet hip width apart, both hands held at navel, closed fist.	Calibrated image of user	Gamescape Visualtext: "Countdown"	Game starts
Attempt to hit CD as it intersects speaker cone.	Reach out to upper front left with left arm, fingers spread.	(no machine input besides image of user)	CD emerges from centre and travels to upper left speaker.	Event – CD launched
Successful strike on the beat.	Left hand intersects speaker cone simultaneously with CD.	Motion detection over area representing upper left speaker cone	Speaker vibrates and CD shrinks. Sound of cymbal clash.	Event – successful strike
Return to ready position.	Lower left arm to ready position.	(no machine input besides image of user)	Gamescape with animated characters dancing along	Pending next event
Waiting for next event, rhythmic sway to music.	Shifting weight side to side.	(no machine input besides image of user)	Gamescape with animated characters dancing along	Pending next event

Figure 2. Fragment of interaction with Eyetoy™ game mapped to Suchman's Analytic Framework

design av interaksjon

The User		The Machine		
Actions not available to the machine	Actions available to the machine	Effects available to the user	Internal 'logic'	Design Questions
<i>Slow-moving, contemplative visitors.</i> Betty and Val enter room together and stand fairly still looking around with heads turning.	Two figures enter room together. Some motion within a small area	State 1. Flock coherent presentation on wall, w2.	System in state 1. What is that behaviour? What does the system consider “still”? Standing absolutely still may realistically translate to talking on the phone or to a companion. Watching the display may translate to slow, peaceful, gentle body movements and locomotion within a very small area.	
<i>Head-poker.</i> Young teenager enters, blocked by Betty and Val, so leaves.	Figure enters room, stops just inside doorway then exits.	Is there a change?	Has this person been detected? May want dead zone at entry. If their entrance and quick exit affects the system only those already there will experience the shift. Is this the behaviour we want?	
Betty and Val decide to stay and watch more, walk towards centre.	Two figures move towards centre.	Does the state change?	Is this sufficient movement to trigger a state shift to state 2? What is state 2 behaviour?	
They watch the flock, turning slowly taking 1 or 2 steps each way.	Detection of 1-2 figures at centre moving slowly in a small area.	Flock behaviour depends on answers to design questions.	Does position of visitors matter to the room? If so how? Will the system differentiate two people close together?	

Figure 3. Fragment of interaction with *Bystander* mapped to Suchman's Analytic Framework

organisasjonsteori

Every organized human activity – from the making of pots to the placing of a man on the moon – gives rise to two fundamental and opposing requirements: the division of labor into various tasks to be performed, and the coordination of these tasks to accomplish the activity. The structure of an organization can be defined simply as the sum total of the ways in which it divides its labor into distinct tasks and then achieves coordination among them. (Mintzberg 1979:2)

oppsummert:

- organisering av arbeidet: dele opp og sette sammen
- organisasjon: en stabil organisering av arbeidet

En situasjonsteori om organisasjoner - Henry Mintzbergs bidrag

Forelesningsnotat IN3220/IN4220

April 2023 ¹

Svein Hovde

Innledning

For en del år siden observerte jeg en liten firmabil tilhørende en håndverksbedrift som passerte i ei Oslogate. Den hadde firmaets motto skrevet med store bokstaver: Det sto «Vårt rykte er vårt levebrød.» Ethvert firma og enhver organisasjon kunne nok slutte seg til dette slagordet. Uansett om en henvender seg til kunder på et lokalt eller globalt marked eller utfører tjenesteyting basert på et politisk mandat er relasjonen til den eller de som utgjør ens kunde- eller publikumsgrunnlag sentral.

Her skal jeg se nærmere på noen teoretiske perspektiver på hvordan organisasjoner forsøker å løse sine oppgaver og oppnå sine mål. Disse kan være langt mer komplekse og mangfoldige enn å bygge eller forsvare et godt rykte. Et fundamentalt mål for enhver

organisasjoner og institusjoner

en generell betegnelse som omfatter
alle slags mål-rettede virksomheter

organisasjon

en virksomhet som er
etablert for å realisere
et mål / formål

ivaretar samfunnsoppgaver og
har en varig formell funksjon

institusjon

en organisasjon eller
stabil praksis / ordning /
norm i et samfunn

Mintzberg om organisasjoner

basert på empiriske studier av organisasjoner i praksis

- 5 grunnleggende deler av en organisasjon
- 5 fundamentale koordineringsmekanismer
- 5 former for desentralisering
- 5 ulike konfigurasjoner



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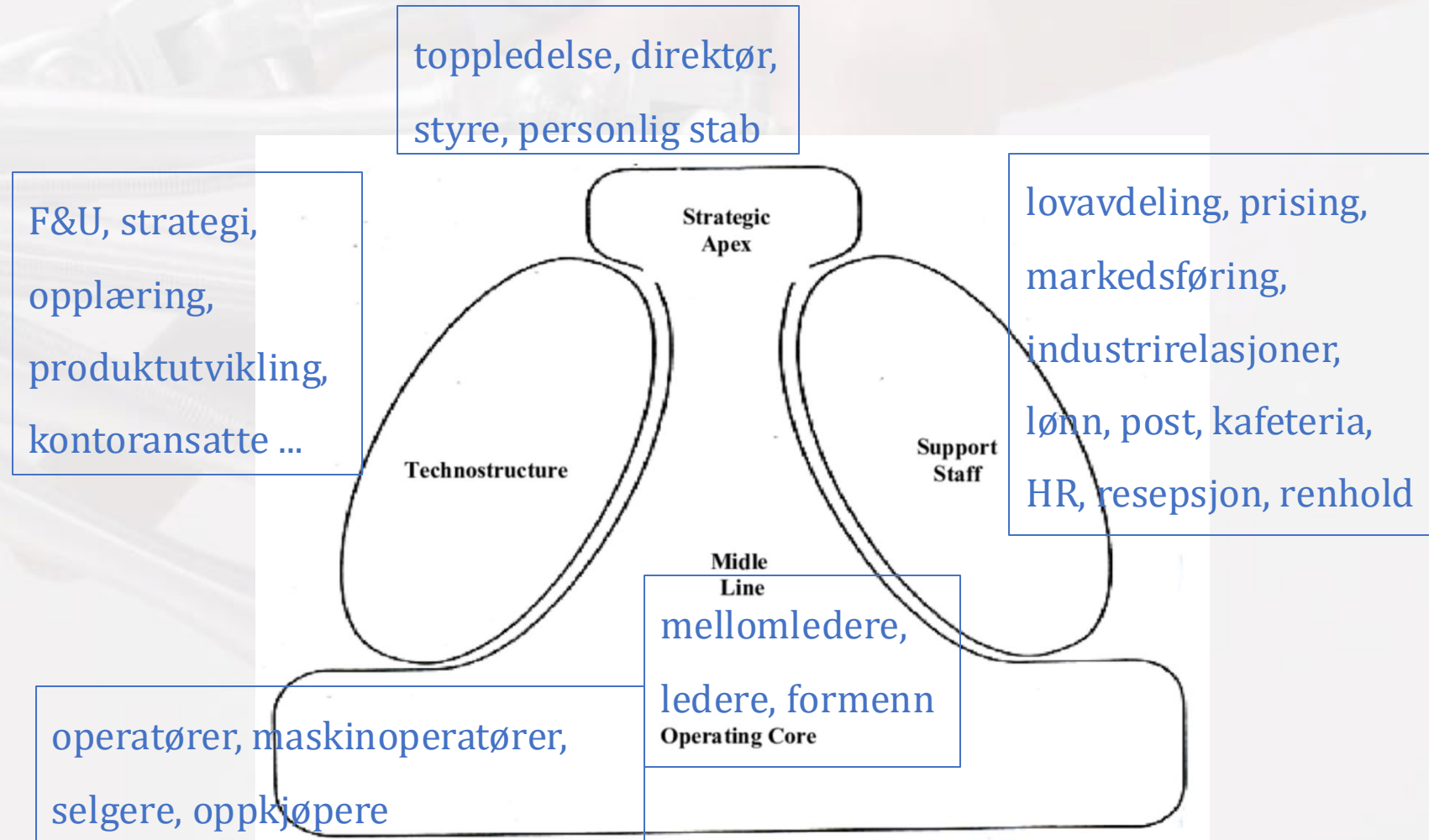
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5 grunnleggende deler av en organisasjon

- toppledelse
- teknostruktur
- støttestab
- mellomledelse
- operativ kjerne

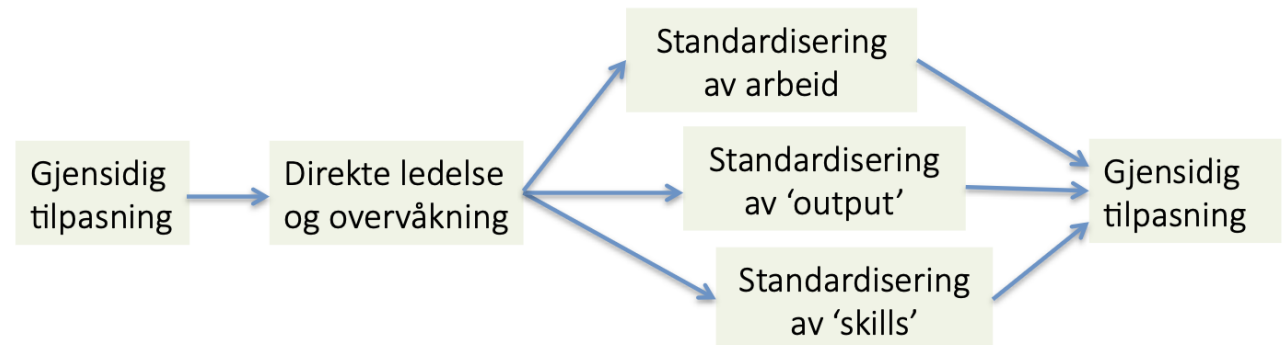


5 fundamentale koordineringsmekanismer

- gjensidig tilpasning
- direkte overvåkning
- standardisering av arbeidsprosesser
- standardisering av «output» / resultater
- standardisering av kompetanse

figur fra Svein Hovdes notat

Koordineringsmekanismene: Et kontinuum av kompleksitet



5 ulike konfigurasjoner

- enkel struktur
 - maskinbyråkrati
 - fagbyråkrati
 - divisjonalisert form
 - adhocrati
- + normativ organisasjon

Konfigurasjoner - figurlig talt og kort sagt

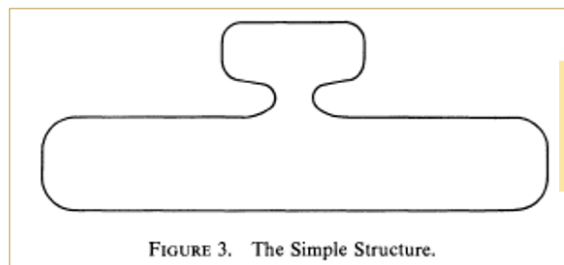


FIGURE 3. The Simple Structure.

Ukomplisert i enkle,
men ofte dynamiske
omgivelser

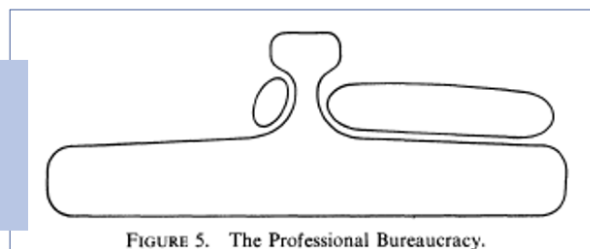


FIGURE 5. The Professional Bureaucracy.

Byråkrati, men ikke
sentralisert, store
støttestaber, liten
teknostuktur

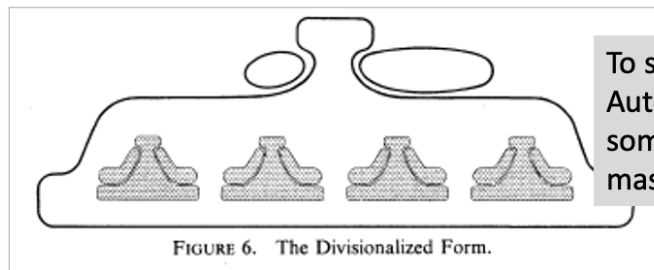


FIGURE 6. The Divisionalized Form.

To strukturer i en.
Autonome divisjoner
som hver for seg er
maskinbyråkratier

Et arbeidsflyt-
byråkrati med
en besettelse for
kontroll

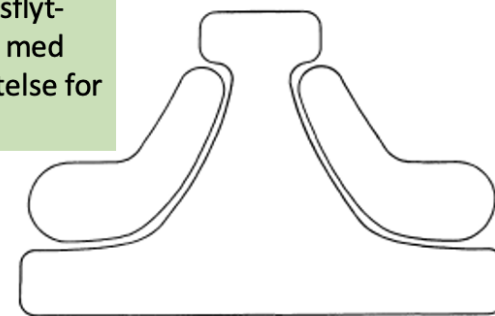


FIGURE 4. The Machine Bureaucracy.

Lite utviklet
adferdsformalisering
og toppledelse,
organisk og dynamisk
prosjektorganisasjon

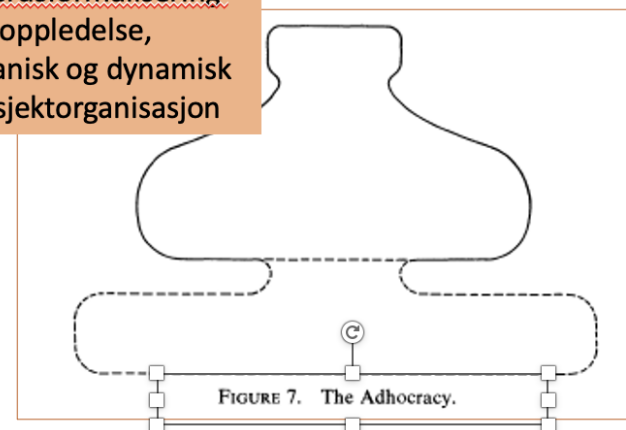


FIGURE 7. The Adhocracy.

svein

5 ulike konfigurasjoner

figur fra Svein Hovde

- enkel struktur
- maskinbyråkrati
- fagbyråkrati
- divisjonalisert form
- adhocrati

Konfigurasjon	Primær koordineringsmekanisme	Organisasjonens nøkkedel
Enkel struktur	Direkte overvåking	Strategisk apex
Maskinbyråkrati	Stand. av arbeidsprosesser	Teknostruktur
Fagbyråkrati	Stand. av kompetanse	Operatører
Divisjonalisert	Stand. av resultater	Mellomledelse
Ad hocratisk	Gjensidig tilpasning	Støttestab
Normativ org.	Stand. av normer	Ideologi

oppsummering organisasjoner

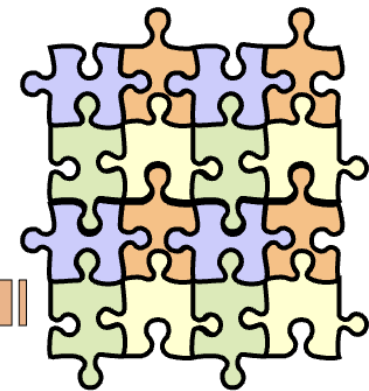
Forslag til sammenføring: Kontrollrelasjoner

Ansattes forsøk på å *kontrollere* og forbedre sine arbeidsbetingelser gjennom individuelle og kollektive handlinger

Organisasjoners strategier for å *kontrollere* sine omgivelser gjennom organisasjonsutvikling, oppkjøp av konkurrenter, lobbyvirksomhet osv.



Organisasjoners anstrengelser for å *kontrollere* sine medarbeidere



Organisasjoners og folks egne måter å øve og understøtte ansattes *selvkontroll*

Samfunnets forsøk på å *kontrollere* bedrifter gjennom konkurransetilsyn, forurensningstilsyn, arbeidstilsyn osv.

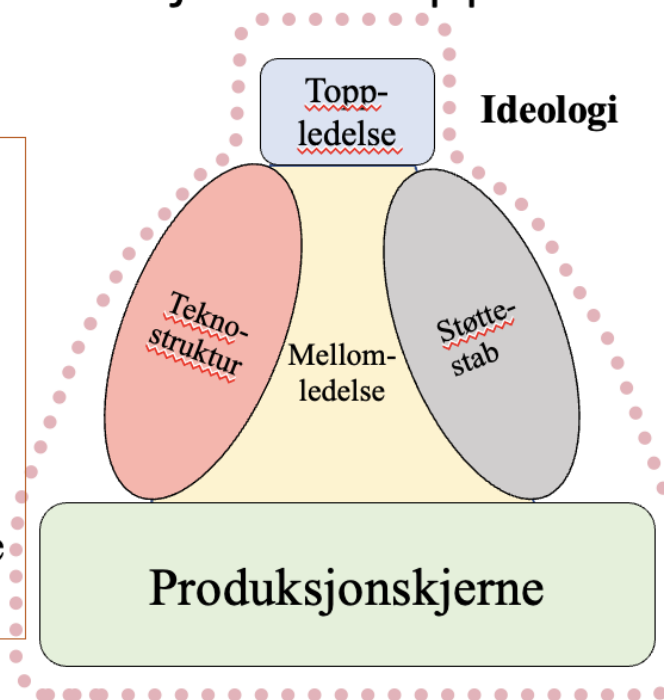
figur fra Svein Hovde

oppsummering organisasjoner 2

Strukturering av organisasjoner – oppdatert versjon

Seks koordineringsmekanismer:

- Gjensidig tilpasning
- Direkte overvåkning
- Standardisering av arbeidsprosesser
- Standardisering av output
- Standardisering av kompetanse
- Standardisering av normer



Ni designparametre:

- Jobbspesialisering
- Adferdsformalisering
- Opplæring og indoktrinering
- Enhetsdannelse
- Enhetsstørrelse
- Planleggings- og kontrollsystemer
- Kontaktmekanismer
- Vertikal desentralisering
- Horisontal desentralisering

Seks konfigurasjoner:

Enkel struktur
Maskinbyråkratiet
Fagbyråkratiet

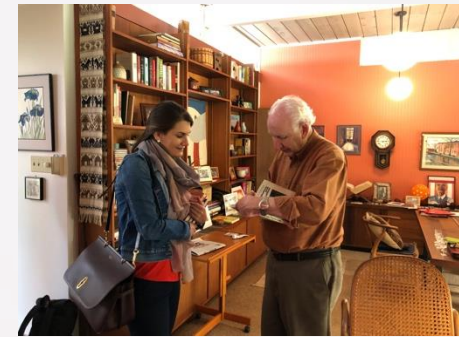
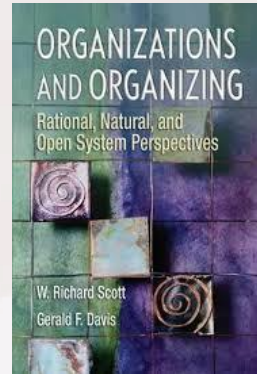
Divisjonalisert form
Ad-hocratiet
Den normative organisasjon

figur fra Svein Hovde

oppsummering organisasjoner 3

organisasjonsteorier som fremhever ståsted, erfaringsverden og interesser

- Silverman (1970): organisasjonsteori og «the actor's point of view»
- Scott (1981): organisasjoner som rasjonelle, naturlige og åpne systemer
- Burrell og Morgan (1979): sosiologiske paradigmer og organisasjonsanalyse basert på ulike ontologier og antakelser om natur og kunnskapsproduksjon
- Morgan (1988): organisasjonsbilder = åtte metaforer for hvordan vi ser organisasjoner og vektlegger deres egenskaper



1. *maskin*
2. *organisme*
3. *hjerne*
4. *kultur*
5. *politisk system*
6. *psykisk fengsel*
7. *transformasjon*
8. *dominans-instrument*

Mintzberg om beslutningstaking

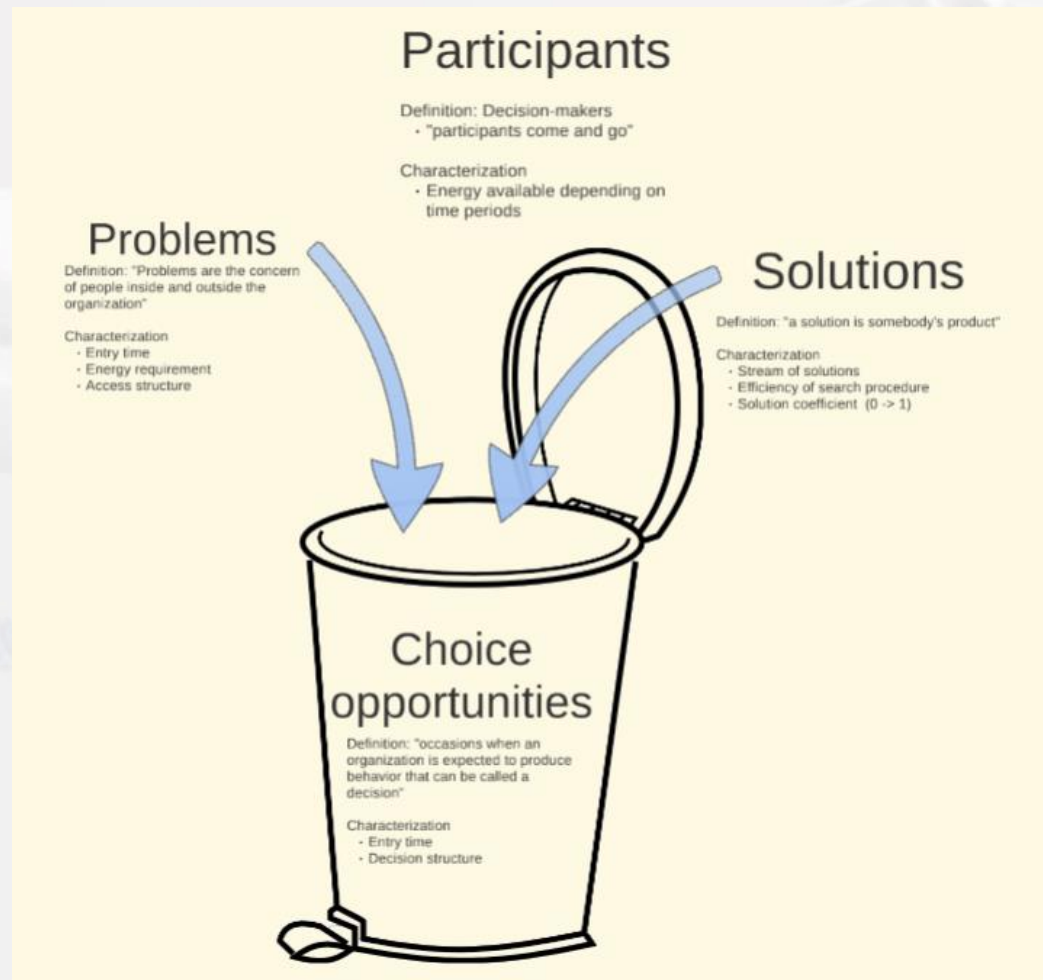


Characteristics of the three Approaches to Making Decisions

"Thinking first" features the qualities of	"Seeing first" features the qualities of	"Doing first" features the qualities of
science	art	craft
planning, programming	visioning, imaging	venturing, learning
the verbal	the visual	the visceral
facts	ideas	experiences

<https://www.youtube.com/watch?v=DyvXu3lSSG0>

March om beslutningstaking



The Garbage Can theory

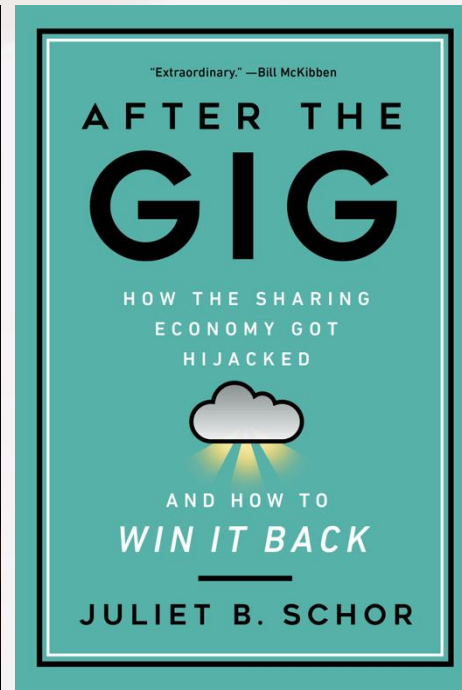
beslutninger er resultatet av flere, løst koblede «strømmer» i organisasjonen:

- deltakere
- problemer
- løsninger
- beslutningsmuligheter

til slutt

Mintzberg om
roller vi tar som samfunnsmedlemmer:

- kunde (på et marked)
- klient (i en tjenestetransaksjon)
- subjekt (som medlem i en organisasjon eller institusjon)
- samfunnsborger (som rettighetshaver og deltaker i samfunnslivet)



https://www.youtube.com/watch?v=KyA_ibtPZBU