Lecture in IN5430 May 8th 2018

# Critical Perspectives on Management, Governance and Control of ICT

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Today:

- Critique of traditional management approaches
  - Too much reliance on «command and control»
  - Alternative approaches: «information infrastructures»
- Readings
  - Ciborra, C. U. (2000): "A Critical Review of the Literature on the Management of Corporate Information Infrastructure". Chapter 2 in "From Control to Drift", Oxford University Press
  - Ciborra, C.U (2004): "Encountering information systems as a phenomenon" Chapter 1 in "The Social Study of Information and Communication Technology". Oxford University Press

Ciborra in «From Control to Drift»
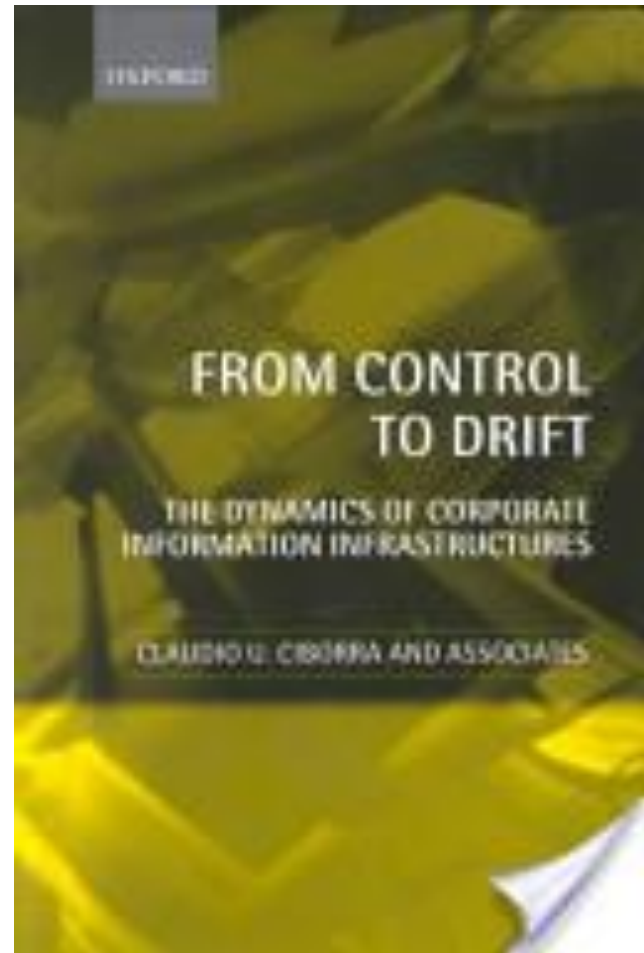
Chapter 2:
A Critical Review of
the Literature on the Management
of Corporate Information Infrastructure

- Alternative to existing literature:
  - Weill and Broadbent (1998): *«Leveraging the New Infrastructure. How Market Leaders Capitalize on Information Technology"*
  - They claim: IT infrastructure is an asset, manage it as other assets in your investments portfolio
  - The recommendations are «based on proven and familiar principles of financial portfolio management»

Asset: «A resource with economic value that an individual, corporation or country owns or controls with the expectation that it will provide future benefit"

- Different understandings of what «Information Infrastructures» are
  - 'common sense' versus theoretical notion
- The complexity of the existing IT and the interplay between IT and organization makes the information infrastructure much more complex to deal with than other assets
  - There are limitations to control-based approaches
- Central terms:
  - The «installed base»: IIs are never developed from scratch, always already exists
  - «Cultivation of installed base»

Alternative to control

- The «From Control to Drift» book contains cases showing the limitations (or even counter-productivity) of traditional managerial approaches (control-based)

- Alternatives to control:
  - Cultivation of the installed base:
    - Less control (the plant must grow)
    - Less detached control, more involved «care»
   - Selection based on proven results (learning process)

Similar argument:

- Ole Hanseth and Claudio Ciborra:
- «Risk, Complexity and ICT»
- Focus: integration
  - Solution or problem?
- Increased integration -> increased risk
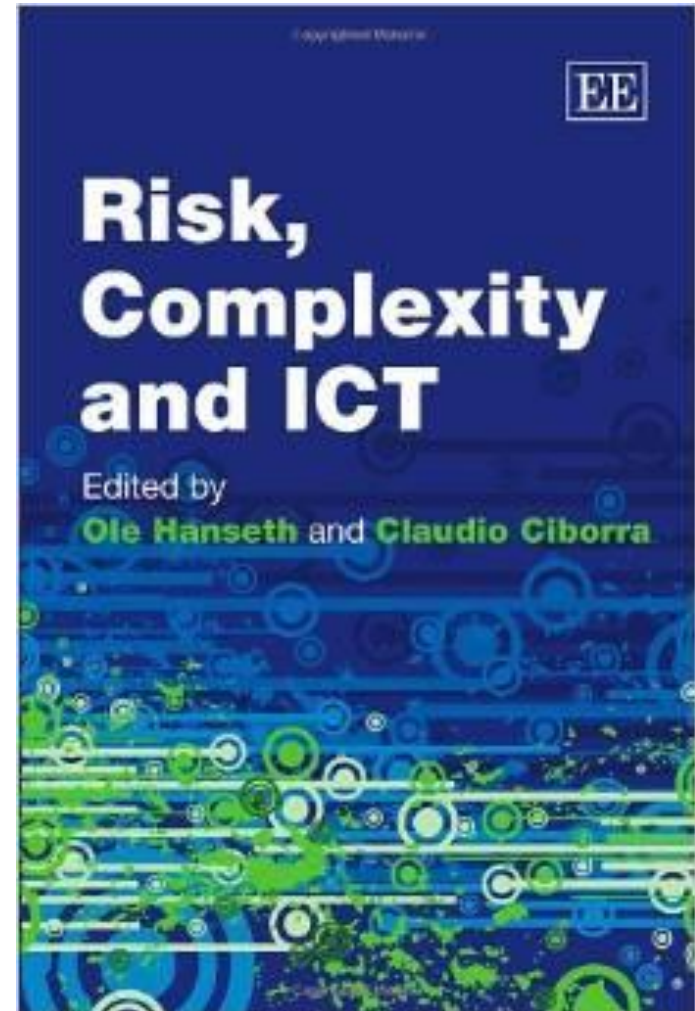
The second reading

- Ciborra, C.U (2004): "Encountering information systems as a phenomenon"
- A methodological argument: how to approach (study, understand, deal with) these phenomena?
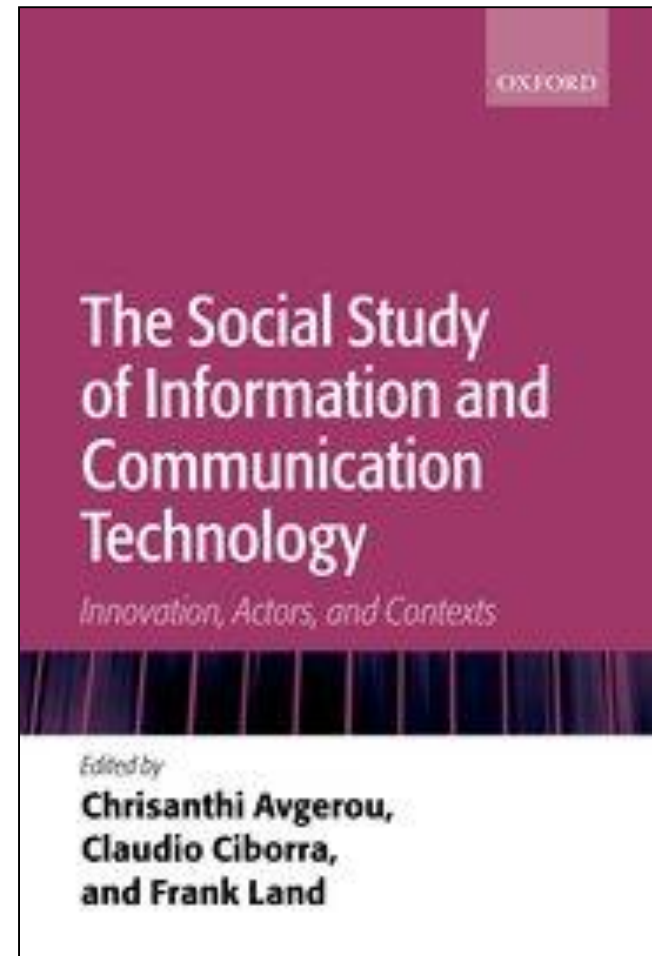
Some quotes:

- «Managers… lack the words to describe… the unexpeced consequences, serendipitous occurrences, and emergent, disappointing features of the new technological systems… A key reason for managers' bafflement and uncertainty lies in the ungrounded expectations created by widely used managerial and consulting models… The vacuity and boastfulness of these promises should not fool anyone…The recommendation is: 'more command and control'»

Argument

- We need to think differently about IT than what managerial/consultant approaches advocate
- Phenomenology (Husserl, Heidegger):
  - «go back to the basics and enounter the world as it presents itself in our everyday experiences»
  - «rely on evidence, intuition, and empathy»
  - In «the murky world of informal, worldly, and everyday modes of operations and practice, It is the realm of hacking, practical intelligence,…, the shortcut and the transgressions…»

# With a phenomenological lens we might see that:

- Technology tend to surprise us when it is put into use
  - «drift» as metaphor
- Implementation requires ongoing work
  - «care» as metaphor
- Technology doesn't evolve according to rational implementation plans
  - «cultivation» as metaphor (bricolage, improvisation)
- Technology comes with promises and threats
  - «hospitality» as metaphor

Other points in Ciborra (2000)

- Tensions/differences between:
  - Formulation and implementation
  - Espoused theory versus theory in use
  - Single-loop learning or double-loop learning
  - Management politics vs. politics of non-humans

Helse Sør-Øst skrinlegger røntgenprosjekt til en halv milliard

Styret i Helse Sør-Øst skrinlegger det som skulle bli et nytt, felles radiologisystem for alle sykehusene. Helseforetaket har brukt over 220 millioner på prosjektet – og flere kostnader vil påløpe i 2018.
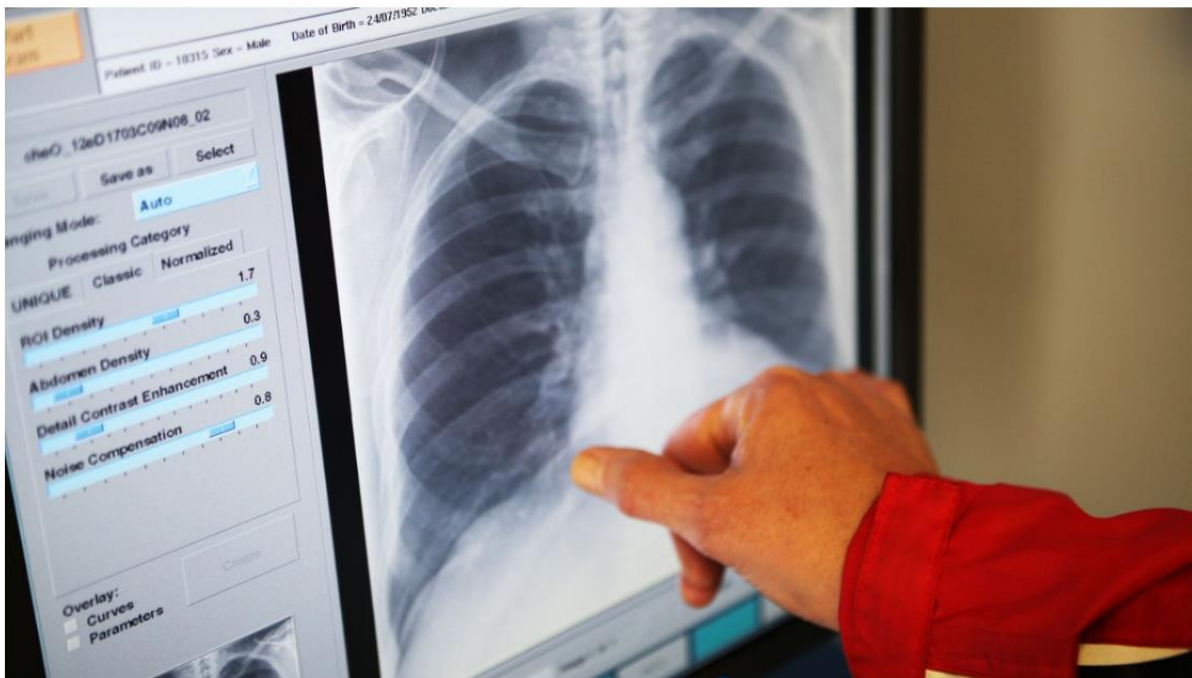
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Publisert 23. apr. kl. 06:21
Oppdatert 23. apr. kl. 10:36

STOPPER RADIOLOGI-PROSJEKT: Helse Sør-Øst stopper en investering på nesten en halv milliard kroner og satser

Helse Sør-Øst: Outsourcing stoppes

Helse Sør-Øst vil stanse outsourcing av IT inntil videre. Venstre mener toppsjefen og styreleder i Helse Sør-Øst bør trekke seg, fordi de har tatt for lett på oppgaven.

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MANGELFULL KONTROLL: I dag får adm. dir Cathrine Lofthus og styreleder Ann-Kristin Olsen en granskingsrapport fra PwC hvor det slås fast at Helse Sør-Øst har hatt dårlig kontroll med outsourcing-prosjektet.
FOTO: LINE TOMTER / NRK

Ifølge toppsjef Cathrine Lofthus i Helse Sør-Øst skal datterselskapet Sykehuspartner fortsatt ha ansvar for IT i helseforetaket inntil de har

Example: NAV

- Social insurance/benefits, social welfare, employment (2006 merger)
- Administers 1/3 of national budget (<320 billion NOK/year), 30 mill. transactions/year
- >19000 employees
- NAV ICT:
  - Runs > 300 applications
  - 425 employees
  - + ca. 200 consultants
  - ICT renewal projects

NAV's ICT renewal projects

- Projects: (2012 numbers)
  - Arena: 225-300 mill. NOK (over six years)
  - Infotrygd: 150-210 mill. NOK (over six years)
  - New «vedtaksløsning»: 340-460 mill. NOK (over seven years)
  - Self service solution: 350-460 mill. NOK (over seven years)
  - Info-platform/resource- and production mng: 260-360 mill. (seven years)
  - Agreement for customer side: 600-850 mill. NOK (over six years)
- 15-20 years' perspective (3,3 billion NOK)
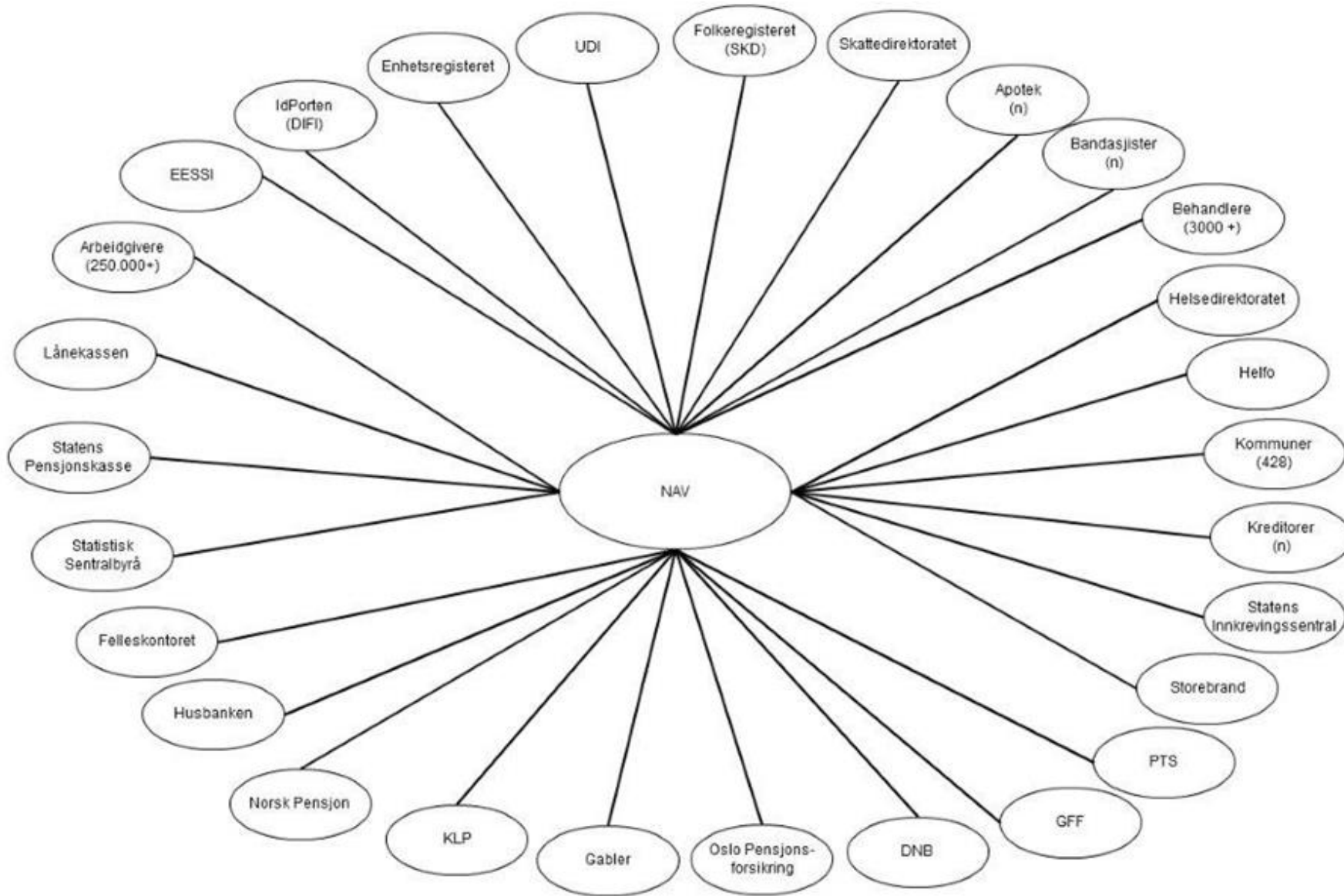
Some of the external parties that NAV systems communicate with

Progress with ICT renewal:

- Work planned from 2010, initiated in 2012
- Project 1, 2 and 3
    - Project 1: 1,75 bNOK allocated
    - Spring 2013: Halted – to be «re-organized»
    - Prioritized disability pension reform 1.1.15
    - Estimated losses: 110-170 mill. NOK
- Increased overall costs ~ 1,5 bNOK (?)
- Parliament hearings
    - November 28th 2014 and February 2nd 2015

+0,13%
(/finans/#/market/ose)

Rente 3
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Rente 10
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USD: 6,1
EUR: 8,1
SEK: 88
(/finans

«in hindsight we see that we were too ambitious, and that we did not realize the complexity of harmonizing the new platform with the existing solutions»

Etter et halvt år og 700 millioner kroner satte NAV-direktør Joakim Lystad foten ned for moderniseringe av etatens IT-plattform.

Politikk og samfunn (/nyheter/politikkSamfunn/)

Nav stanset IT-prosjekt etter å ha brukt 700 mill.

Falt tilbake på å bruke det mest moderne av de gamle systemene istedenfor.

NTB (mailto:dn.no@dn.no)
Publisert: 23.01.2014 — 21:07   Oppdatert: 11.02.2014 — 10:16

Complex

CE (circled)
- patterns

probe · sense · respond

Complicated

$C \longrightarrow E$
- analysis
- experts

sense · **analyse** · respond

Chaotic

$C \neq E$
- no patterns

act · sense · respond

Simple

$C = E$
- best practice
- SOPs

sense · **categorise** · respond

Source: anecdote.com
Adapted from Snowden et. al. (2007)

("The Cynefin framework")

Complex

the relationship between cause and effect can only be perceived in retrospect

probe – sense - respond

emergent practice

Complicated

the relationship between cause and effect requires analysis or some other form of investigation and/or the application of expert knowledge

sense – analyze - respond

good practice

novel practice

Chaotic

no relationship between cause and effect at systems level

act – sense -respond

best practice

Simple

the relationship between cause and effect is obvious to all

sense – categorize - respond