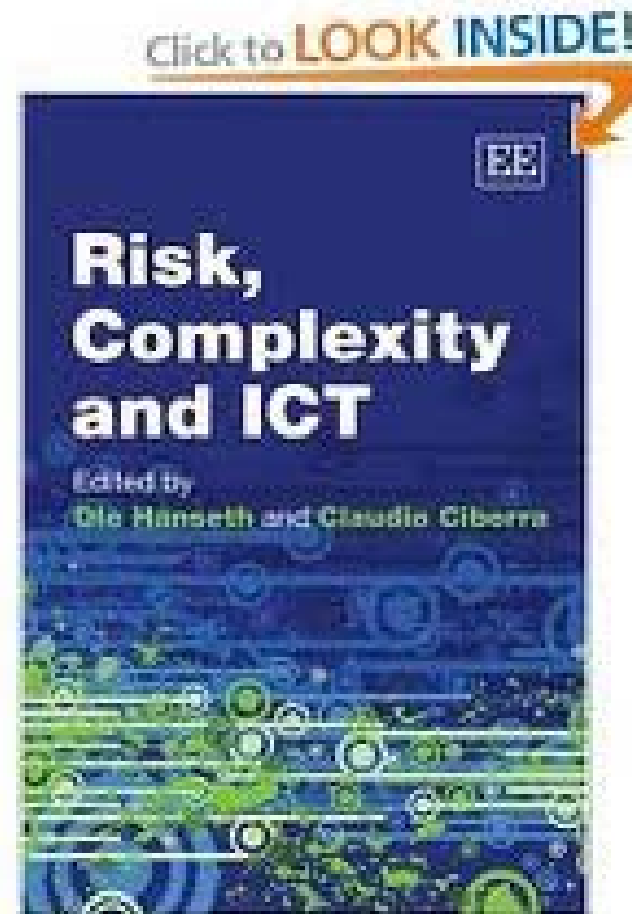
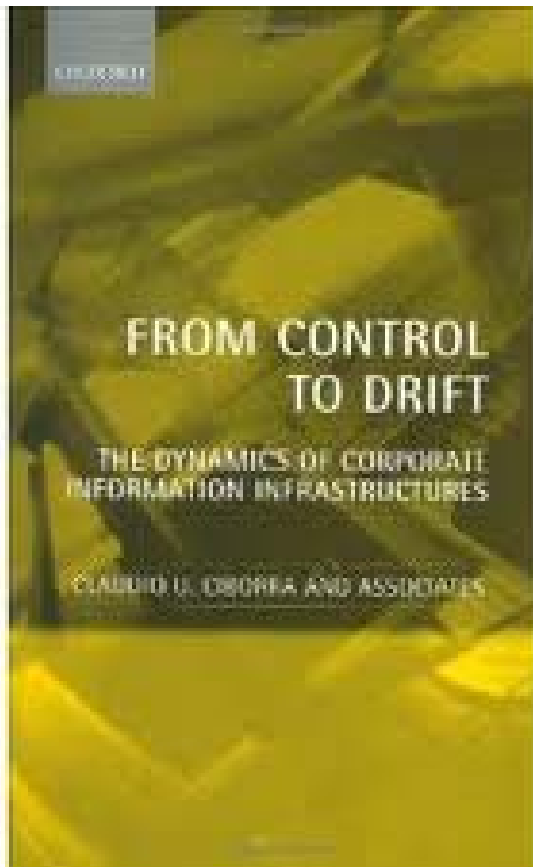


# GOVERNANCE OF INTER- ORGANISATIONAL STANDARDIZATION PROCESSES

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# ICT assemblages/information infrastructures



# Topic:



- From "governance through standardization" to "governance of standardization"
  - ▣ Standardization not (only) a solution, but a challenge in itself
  - ▣ Defining and realizing standards
- What are appropriate governance mechanisms for inter-organizational standardization?
  - ▣ Can bottom-up standardization lead to desirable results?
  - ▣ Can top-down standardization adopt other governance mechanisms?

# Empirical context

- Standardization in the Norwegian healthcare sector
  - ▣ Early to digitize core work tools (EPR systems)
  - ▣ ... but slow to achieve interoperability
- Nationally coordinated, specification-driven, top-down initiatives
  - ▣ 1990: KITH established (national standardization for healthcare)
  - ▣ Aligned with European initiatives (CEN TC 251)
  - ▣ EDIFACT and OSI standards hegemony, relatively little impact
- De facto standards
  - ▣ evolved around commercial products, regional health authorities' initiatives, hospital mergers etc.

# Examples



- General pattern:
  - Large-scale, top-down initiatives stalled/troubled
  - Bottom-up initiatives lead to (limited) growth
- Examples:
  - KITH's EPR standard, message standards
  - Electronic Prescriptions
  - National Healthcare Network
  - ELIN – Electronic Information Exchange
  - Furst Medical Laboratories (message exchange since 1987)
  - DIPS (de facto standard product - EPR system)
  - Well Interactor (interactive referrals, orders)

# Inter-organizational standardization



- Challenges of inter-organizational standardization:
  - Difference of interests
  - Asymmetric cost/benefit distribution
  - No central locus of control (voluntary participation)
  
- Collective action dilemmas
  - Conflict between individual and collective rationality
  - Joint standard as a public good

# Aim of research



- What are appropriate governance mechanisms for standardization
  - ▣ What can be learnt from analysing the cases?
  - ▣ Can bottom-up standardization lead to desirable results?
    - Or.... :
  - ▣ Can top-down standardization adopt other governance mechanisms?
  - ▣ How can we organize standardization in a more "governable" manner?

# Relevant conceptual resources:

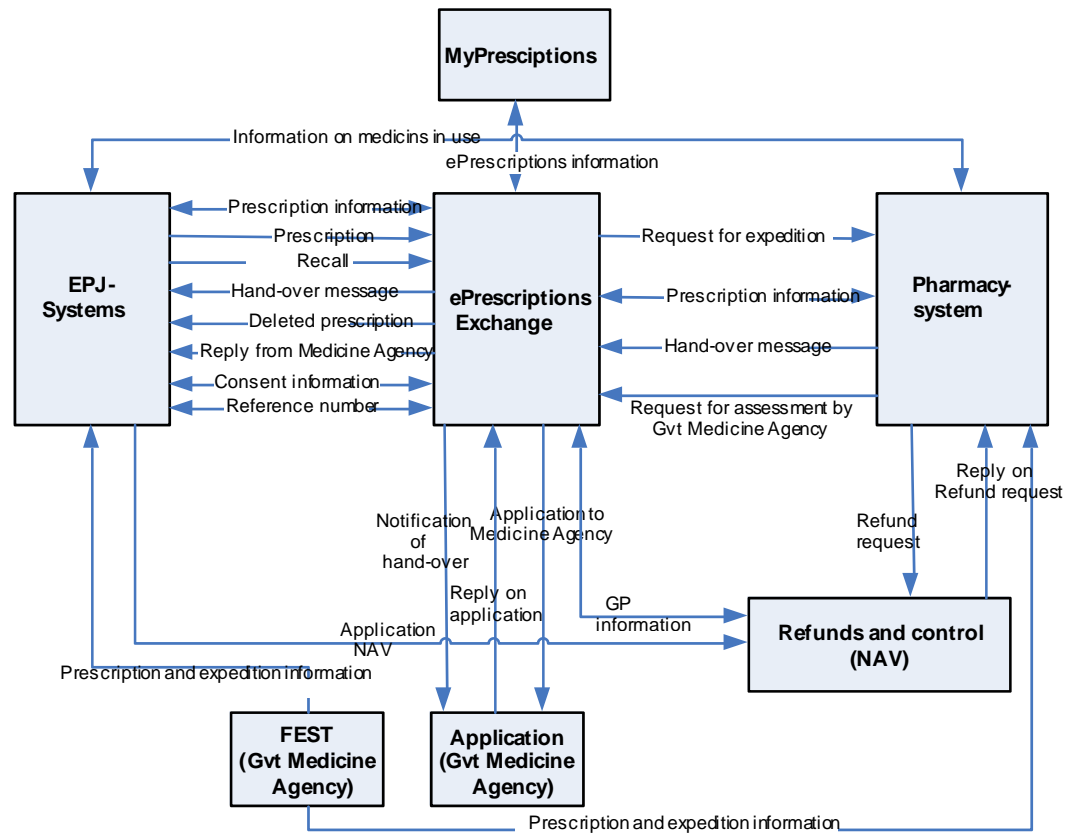
- Draw on studies of:
  - The Internet's evolution
    - IETF's standardization process (RFC), end-to-end architecture (Janet Abbate), generativity (Jonathan Zittrain), regulatory modalities (Lawrence Lessig)
  - Commons-based peer production
    - E.g. open source software production, Creative Commons, Wikipedia etc. (Yochai Benkler, Eric von Hippel)
  - Regulation of commons
    - Elinor Ostrom's studies of collective governance of natural resources
- These domains represent other ways of coordinating and harnessing collective capacity
  - What makes these phenomena "governable" through alternative means?
  - "Complexity thresholds"?



# Proposition:

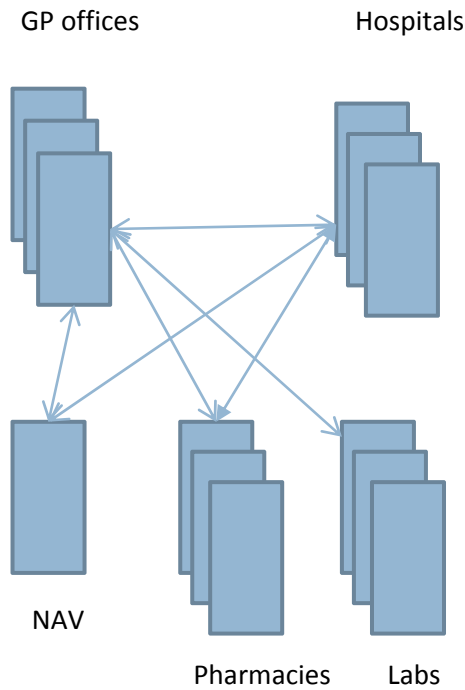
- Governability is a function of:
  - ▣ The solution architecture
    - Tight or loose couplings?
    - Modular or integrated solution? (and: how modularized?)
  - ▣ The strategy chosen
    - Specification driven or learning driven? (focus on goals or process?)
    - Incremental or "big bang"?
  - ▣ The organization of the participants
    - Project geography, voting, consensus (possibility for veto), incentive mechanisms (motivational, strategic or structural)
- Governance is temporally dynamic (changing over time):
  - Technical realizability of solution
  - Organizational implementability and usability
  - Future maintainability

# ePrescription

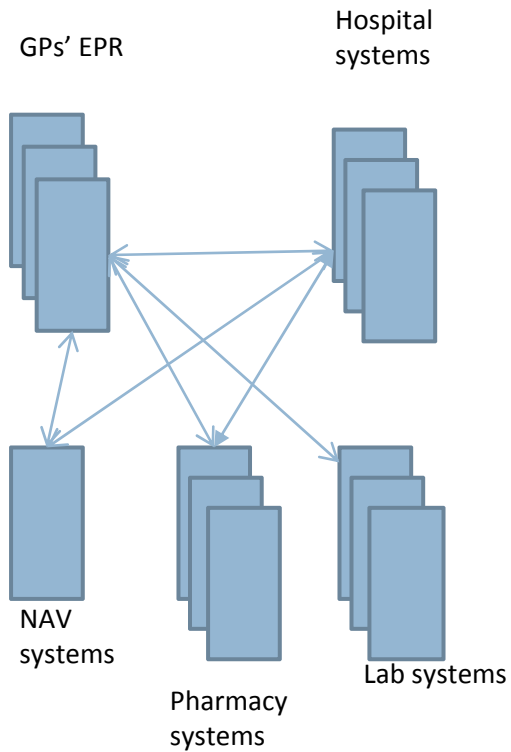


# The EDI Paradigm

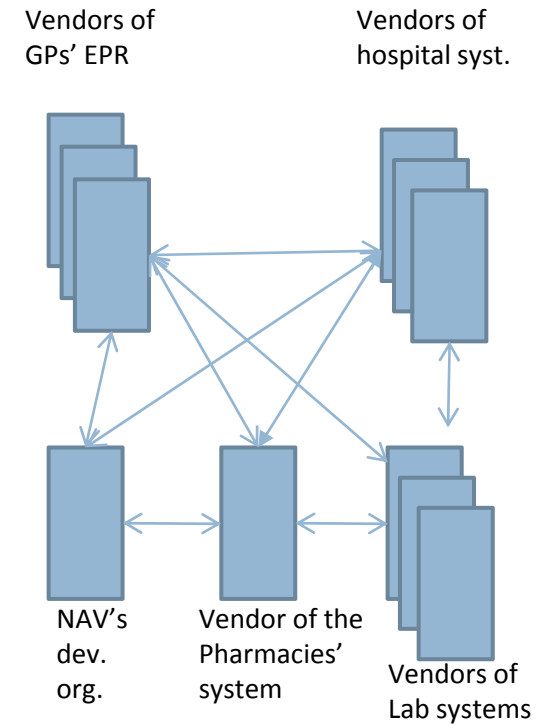
Information flow



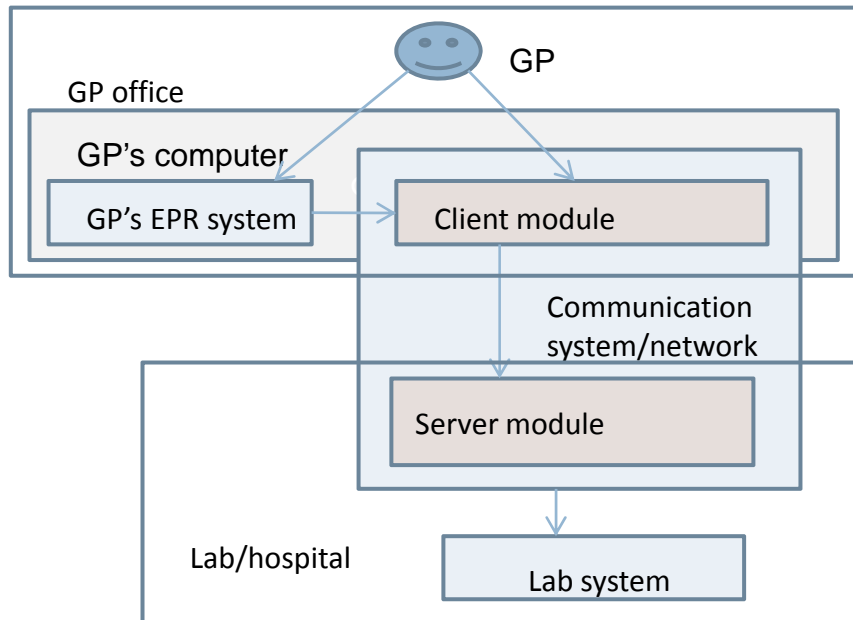
ICT architecture



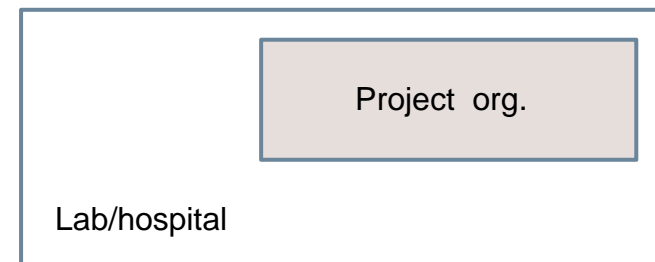
Project organization



# An alternative



ICT architecture



Project organization



- Thank you for your attention!