# Institutional theory

## IN520 Lecture

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# First, an apology…

- This session is an introduction to a very large field, that spans multiple disciplines
- The chapter by Currie is long, covers some history, and brings up tons of references, and I found it a bit messy: **It is quite normal to be confused!**
- But, as with all theories; if you find any of this interesting or relevant to your own work, follow the references.
- This is (academic) life, and is also what you will have to deal with when writing your thesis

# Outline: Two parts

1. (very basic) Overview of institutional theory, following the chapter by Currie. I will not cover everything in this chapter (and I will not use other references much)

2. Example of institutional theory used in information systems research
   – In particular, such theory used in the HISP project on health information systems strengthening in developing countries

- The idea is that the second part will make it easier to digest and understand the first part.

  Institutional theory in practice!

# What is an institution?

- Many definitions, some commonalities:
  - Multi-faceted, durable, social structures, made up of symbolic elements, social activities, and material resources" - Scott (2001)
- Family, religion, economic systems, legal systems, language, mass media, businesses, academia, the nation-state, art…

# What's the difference between an organization and an institution?

- A school is an organization; education is an institution

- A football club is an organization; football as a game is an institution

- "An organization is a player, while institutions are the rules of the game"

# Football as an institution

# Institutional theory is about the stability and change of institutions

- *Institutionalization* is the process by which an institution attains a stable and durable state or property

- *Deinstitutionalization* is a process by which the legitimacy of an established practice erodes or discontinues

- *Reinstitutionalization* is an exit from one institutionalization, and entry into another institutional form

# Example: Family

- "Multi-faceted, durable, social structures, made up of symbolic elements, social activities, and material resources"

- Mother, father, children. "Western nuclear family"
- Formal rules (marriage, laws, etc), informal rules (no cheating, division of responsibilities), symbolic elements (wedding, ring, "mother in law"), social activities (vacation, Friday taco!, etc), material resources (shared home, the table around which you gather for dinner, etc)

- Is this institution similar all over the world?
- How stable is it? Is it changing?

# Why are institutions interesting from an IT/IS perspective?

- Instititutional theory is/has traditionally been concerned with stability, while technologies are often associated with rapid and sometimes disruptive societal and organizational changes

- Developing and using IT are subject to social pressures

- So: IT influence institutions influence IT

# Example: IT and institution of "mass media"



– Norske Skog fulgte de entydige rådene fra finansmarkedene: Fokuser og skaff så store markedsandeler som mulig– altså fjerne alt som ikke bygget opp under kjerneproduktet.

Men rundt årtusenskiftet startet problemene.

– For første gang i verdenshistorien falt etterspørselen etter avispapir. Fram til da hadde det bare gått en vei – oppover. Det var ikke mulig å se at dette markedet skulle falle da de store investeringene ble gjort på 90-tallet, sier Moen.

# Institutional theory and economic-rationalistic perspective

- Institutional theory brings in the social context
- The boundary of rational choice (about IT) is socially constructed, and if legitimated and taken for granted as a social fact, operates and persists even beneath the level of consciousness
  - We (and our organizations) act out of socially constructed ideas of what is beneficial. We use institutional arguments rather than rational choice arguments

- Provides an understanding of phenomena not so well explained by economic-rationalist models, such as the wide adoption and acceptance of IT innovations seemingly suboptimal in economic and technical terms

# Question 1

- Why do we all have to switch to DAB radios???

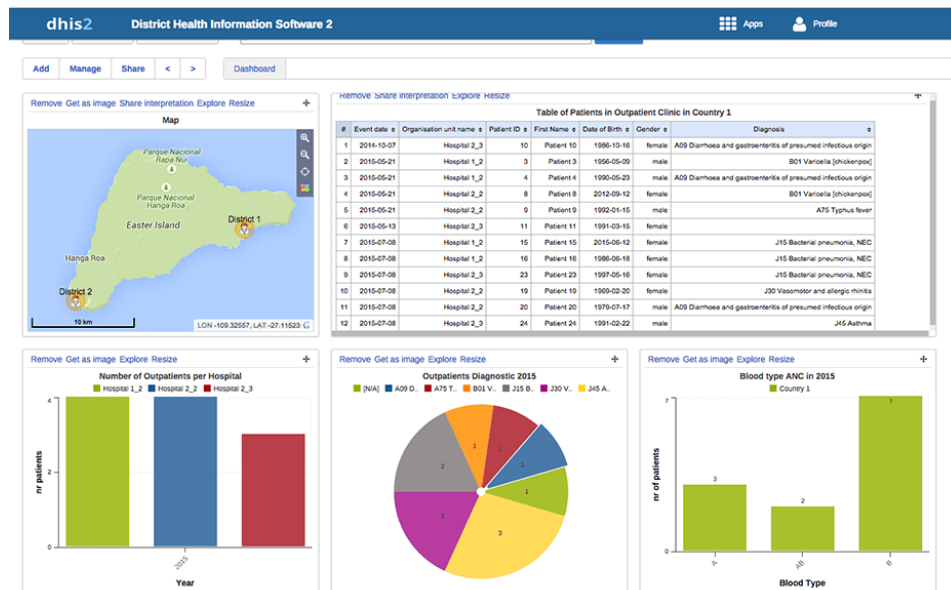- "Seemingly suboptimal in economic and technical terms"...

# Question 2

- Who has an iPhone, and why did you get one?

# Question 3

- Why is the DHIS2 software the way it is?



- Who made it, for whom, for what use? Why is it open source? Why does a country want to use it, while another country doesn't?

# One final introductory comment..

- The chapter talks a lot about (old) institutionalism and neo-institutionalism. It is possible to define both so that they seem either mutually exclusive, or mostly overlapping! (thus, no need to get too deep into this story unless you want to do a PhD)

- Old institutionalism saw organizations as organic whole, focused on the state or governments, and rational-choice approaches

- New institutionalism has more focus on individuals (in institutions), and their conceptions (as opposed to rational choice), and does not only deal with governments and states

So far, so good?

Moving to some central concepts...
(or, the language institutional theory gives us to explain things)

# Institutional change

- This is the overarching theme. The following slides deals with different constructs to look at this
  - The reading by Currie goes a bit back and forth

- I will thus not focus too much on this per se, but re-iterate that all concepts of change should be seen as useful also to describe/understand lack of change.

# Organizational field

- "Those organizations that, in the aggregate, constitute a recognized area of insitutional life" – DiMaggio and Powell 1983

- All universities and university colleges in Norway (all universities in the world?)
  - The players (organizations) than play a certain game (institutions). In this case, the game of "higher education".

# Organizational isomorphism

- Isomorphism: to become the same
- Within an organizational field, researchers found "rational actors make their organizations increasingly similar as they try to change them"
- Universities operate more or less the same way?
- In Silicon Valley, firms try to have dynamic and flat structures, with table tennis and freedom of innovation?

# This is not a mirror



Plato (L) and Aristotle (R)
by Rafaello Sanzio

# Organizational isomorphism

- Coercive isomorphism: formal and informal pressures exerted on organization by powerful entities such as the state and by cultural expectations in the organization's environment
  - Examples?
- Mimetic isomorphism stems from uncertainty. When things are uncertain (as with new technologies), you watch what others are doing and model yourself after them
  - Examples?
- Normative pressures stem largely from professionalization. Collective struggle of members of an occuption to define conditions and methods or their work
  - Examples?

# Institutional logics

- "sets of material practices and symbolic constructions which constitute a field's organizing principles and which are available to organizations and individuals to elaborate" – Friedland and Alford 1991

- Formal and informal rules of action, interaction, and interpretations that guide and constrain decision makers. Cognitive maps and belief systems.

- Example: Our economy (the institution) has certain shared belief systems (such as capitalism). Alternatives?
  - Communism/planned economy
  - Islamic banking (no usury, profit and loss sharing, etc)

- More on this in the second part of the lecture…

# Paradox of embedded agency; institutional entrepreneur

- If actors are embedded in an institutional field, acting according to the field's regulative, normative, and cognitive processes, how can they even see a different way of doing things, and make others adopt it?

- In other words: If all you know is apple, how can you even envision a banana?

# One attempt: Institutional entrepreneur

- Institutional entrepreneurship "activities of actors who have an interest in particular institutional arrangements and who leverages resources to create new institutions or to transform existing ones" – Maguire, Hardy, and Lawrence 2004

- Re-introduction of agency and interest into institutional analysis. **We are not slaves of our institutions**.

- Furthermore, we are not only part of the institutions in which we work. While I'm in the "academic world", I am also living within many other institutions (parliamentary democracy, market economy, "Western popular culture", etc etc), which may shape my conceptions of work practices at the university.

# Institutional theory in IS research

- Not as rigourous. Play down the ambiguities and multi-disciplinarity of the field (second part of the lecture will show this)

- Selective in the use: more on institutional effects on IT, less on IT as process of institutionalization

  - Examples: mindful innovation (Swanson and Ramiller), coercive, mimetic and normative pressures on assimilation of IT (Liang et al), institutionalization of IT budgeting (Hu and Quan), managment fashions of IT adoption (Currie) + +

- Currie found seven broad categories of use:

  - Technology and institutions, innovation, industrial sectors, adoption and diffusion, strategy and outsourcing, applications development and implementation, and knowledge-based work

# Summary on the use of Institutional theory in IS

- Dominant view is that institutions are part of the environment shaping development and use of IT

- IT-as-institution: focus on institutionalization of technology within a single organization. IT itself treated as "Multi-faceted, durable, social structures, made up of symbolic elements, social activities, and material resources"

- Institutional concepts are often simplified

- IS researchers rarely relates to the history and interdisciplinarity of institutional theory

# Some challenges of using institutional theory in IS

- IT research focus on lower level of analysis rather than the "regulative processes, normative systems, and cultural frameworks"

- What is science? Positivist methods (surveys, experiments) vs interpretivist methods (case studies and ethnographies). Many IT/IS researchers apply the former, and may we wary about ill-defined institutionalist concepts

- Poorly defined concepts, multiple definitions of institutions, a field with "almost no limits"

- Shift from asking "Big questions" towards "narrowly oriented research" like `normal` science

# Summary of part 1

- Instititutional theory deals with stability and change of institutions

- Central concepts: organizational fields, organizational isomorphism, institutional logics, intstitutional entrepreneurs

- Have increasingly been used to look at IT and IS; mostly on how technology development and use is shaped by institutions

- Is a large, interdisciplinary field, and most IT/IS application is piecemeal

# Part 2

# Example of (in-house) use of institutional theory in information systems research

# Interplay of Institutional logics and implications for deinstitutionalization: Case study of HMIS implementation in Tajikistan

- Health Information Systems Programme (HISP) at UiO (6th floor, several master thesis projects available!): have certain values, belief systems, something we take for granted, shaped by the institutions we are part of

- Tajikistan Ministry of Health had different values and belief systems, **concerning the same things!**

- How come? What were the implications?

# What is HISP; short story

- Network of researchers, practictioners, developers, working on Health Information Systems

- University of Oslo, friends and family across the world!

- Develops the open source DHIS2 platform, engaged in implementing it in many countries and for many organizations

# What is DHIS2; short story

- [www.dhis2.org](www.dhis2.org)
- Open source software/platform, primarly designed to support decisions in the health sector
- Developed over two decades, it has become generic to cater the many different needs around the world

# What do HISP try to do with DHIS2; short story

- Help (primarily) Ministries of Health to better monitor, evaluate, and plan health interventions
- In addition to DHIS2, we have certain ideas of how this should be done, and work with users to implement it in a way that we see as beneficial to
  - Decentralized evidence-based decision-making
  - Sustainability in terms of dealing with change and limited resources

# The Tajikistan story

# The project



- HISP team from UiO responsible for a donor-led project to design, develop, and pilot a new HMIS, using DHIS2

# It did not go well!

# Why not?

- What are the key institutions that challenge the introduction of ICT-based HMIS reforms in the context of a post-Soviet economy?

- What theoretical concepts inspired by institutional theory could help us to understand deeply the nature of these challenges, and how these may be addressed?

# Chose an institutional perspective

- While institutions are the result of human activity, they are not necessarily the products of conscious design (DiMaggio and Powell)

- Institutions are resistant to change and tend to be transmitted across generations (Scott)

- Ceremonial role of "ICT for development" (Noir and Walsham)

- Institutional logics as "the socially constructed, historical patterns of material practices, values, beliefs, and rules by which individuals produce and reproduce their material subsistence, organize time and space, and provide meaning to their social reality" (Thornton and Ocasio)

- They work at different levels, and multiple logics may be simultaneously at play, contributing to institutional contradictions (Friedland and Alford)

- Institutional entrepreneurs are agents of change (Thornton and Ocasio)

- Three key factors contribute to deinstitutionalization: political, functional, and social (Oliver)

# Existing logics at play

- Two dominant logics had implications for what we tried to do:
    - Central planning logic
    - Logic of technology (paper-oriented)

- These "logics" are the products of our analysis, an example of IS researchers using institutional concepts perhaps with too shallow an understanding. But, they had analytic value for us.

# Central planning (set of) logic(s)

- A strong Soviet legacy: Central planning meant systems had been designed to feed the top level with data, who would scientifically examine it and make appropriate action

- Curative rather than preventive approach to health. Preventive health need decision to be made closer to the problem, to stop them from emerging in the first place

- Gigantomania: collecting data on all kinds of events and factors were seen as scientific rigour

- However, while this may have made (more) sense in the Soviet era, the top level specialists were not there any longer, and the resources locally to collect this data was also not present. Data quality was poor.

# Technology logic of paper

- Soviet-style 5 year planning cycle.
- Can not make changes between the 5 years
- Also huge cost of making changes if everything is on paper
- Double entry as data quality measure



ДЕСЯТОЙ ПЯТИЛЕТКЕ — УДАРНЫЙ ТРУД !

# Why was this bad? Conflicting logics

- We came with different ideas, or institutional logics
- Decentralized decision-making (as opposed to central planning)
- HMIS is indicator and action-led (as opposed to gigantomania of data collection)
- Computer systems should be employed to internalize routine aggregation, increase flexibility, and decrease response time to changes in epidemiological information needs

# Two sets of conflicting logics

- Statistics for central planning and control versus using information for decentralized action

- Rigidity of paper-based reporting formats versus the flexibility of customizable electronic forms

# Central planning vs. decentralized action

- The Asian Development Bank gave us some legitimacy, but the ministry prevailed

- We instead implemented their requirements in the hope of highlighting the shortcomings of such a solution

- Led to development of new functionality in DHIS2, which made it easier to accommodate the requirements of Tajikistan

- We believed this could make a stronger case for change in the future (which I think it did, eventually)

# Rigidity of paper-based vs flexibility of electronic forms

- Not able to utilize any of the flexibility in the technology. Forms, design, logic remained the same
- However, we found at lower levels some alternative logics that were more in line with our thinking

# Interplay of logics and implications for deinstitutionalization

- A degree of **social** pressure had been placed on MoH to reform their HMIS through efforts of World Bank and ADB. However, the recommendations were not binding for the ministry, and we failed to create adequate momentum for change at the **political** level

- The interplay of logics primarily occured on the **functional** domain. While we failed to create any change, we influenced the discourse and left a technology with flexibility for future change

- There were some domestic seeds for change

# Conclusions

- The study attempted to use institutional theory, especially the concept of institutional logics, to analyse the failure of IS change

- While maybe not completely faithful to the complexities of institutional theory, it was a useful exercise that shed light on the "why" of this failure.

- By using concepts from institutional theory, we came to better understand the dynamics of IS implementation