BALANCING CONTROL AND GENERATIVITY IN THE DEVELOPMENT OF A NATIONAL HEALTH INFRASTRUCTURE

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Why Sundhed.dk as Case Study

- Successful portal
- International attention
- National initiative
- High standing in Denmark
- Incorporated in strategies
Research Motivation

- Patient centered e-health services through portals and platforms
- To cater for development of novel functionality and services, the platform owner needs to exert a certain degree of control, economic, social and technological, in order to appropriate economic rent from the system (Tiwana et al., 2010).
- Control exists because of generativity (Eaton et al., 2011), a key capacity of information infrastructures that refers to the degree to which it enables continuous innovation, adoption and scaling (Hanseth et al., 2012)
Research Motivation (cont.)

- The control versus generativity debate has often covered areas where the actors with an interest of innovation on the platform are widely dispersed and not connected (such as telecom/mobile platforms).
- Are there other tensions or conflicts between control and generativity when dealing with consumer platforms versus those that cater for a public/state/national platform.
Research Aim and Question

- How does the portal evolve in a continuous interplay between broad involvement, consensus building and political unity on the one side and the ability to be agile and cater for rapid innovation on the other.

- RQ: what are the dynamics between control and generativity when developing national health infrastructures?
Sundhedsjournal og registreringer

Sundhedsdata
› Sundhedsdata fra sygehus
› Sundhedsdata fra læge

Tilmeldinger
› Livtestamente
› Screeningsprogrammer
› Organdonation
› Bloddonation
› Ægdonation
› Se alle
# Short History of Sundhed.dk

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>1992</td>
<td>Danish health network is established</td>
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<td>1994</td>
<td>MedCom is established</td>
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<td>2001</td>
<td>The regional authorities and the government start working on establishing a national health portal</td>
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<td>2003</td>
<td>Sundhed.dk go-live after a tendering process</td>
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<td>2004</td>
<td>Support for login and secure services/access to personalized data</td>
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<td>2013</td>
<td>Around 850 000 unique users every month, about 1/3 per health personnel, the rest citizens</td>
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Organization

[Diagram showing the structure of the organization with various partners and their respective roles such as Governance, Liaison, Content to CMS, and Projects.]
Success factors

- Similar organisation as the rest of the health sector (agreements and financing)
- Political unity, financial backing
- Basic underlying infrastructures in place (e.g. secure network for health data)
- No other real competition
- Sundhed.dk integrated as part of the national and regional strategies and legislation within e-health
Challenges

• Maintenance of Sundhed.dk versus development of new services
• Development capacity and prioritization
• Sundhed.dk as a vendor or opinion carrier
"It is super-difficult to be sundhed.dk – serving so many masters"
«I believe we should go in a direction where we get more coordinated orders»

«In the start we had one task and it was described well»
«If you are making something that is integrated with our security setup, logging procedures (...) you cannot help putting on our specialists. Because they know how to do this»

«It is frustrating when the ministry level asks to have a service developed – there is no space now, it is someone else's turn»

«It is a fantastic engine, really, so when I get frustrated I see the potential in it, but the more we have the more we want»
«You can risk that, through political negotiations, a politician says – now we need more people to donate their organs. They want to lift their political showcases through us»
Preliminary findings

• Having the status as «the one» place for citizen and health personell access to health data creates strong pressures for catering for innovation

• Platform control seems important for the «state solution» for reasons such as a responsibility for the stability, authenticity, correctness and security of the portal

• The partners are what gives the platform legitimacy – so balancing consensus and broad involvement versus opening up/generativity is central.