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«Connected Care – creating patient-oriented digitally supported health services»

Researching Digitalization Workshop, LSE May 19th 2015
Researching Digitalization in Health

• Digitalization: “a sociotechnical process of applying digitizing techniques to broader social and institutional contexts that render digital technologies infrastructural” (Tilson, Lyytinen, and Sorensen, 2010)

• Researching Digitalization in Health through multiple longitudinal case studies: projects at different stages, with different project owners and ambitions.

• Analysis of trajectories followed – focus on the interplay between novel digital capabilities and established communication practices, organizational arrangements, technological setups, value logics, regulatory provisions.
# Projects Followed

<table>
<thead>
<tr>
<th>Vision</th>
<th>Status</th>
<th>Owner</th>
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<tbody>
<tr>
<td>“National Platform”</td>
<td>National infrastructure for patients: access to trustful information (1&lt;sup&gt;st&lt;/sup&gt; stage), secure dialogue services (2&lt;sup&gt;nd&lt;/sup&gt; stage). A blend of patient and provider controlled components.</td>
<td>Ongoing. Initiated in 2010.</td>
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<td>“My Record”</td>
<td>A door to the hospital: tailored services to patients based on relationship with specific clinics. Hospital controlled.</td>
<td>Ongoing. Initiated in 2005.</td>
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<td>Rehab</td>
<td>Improve the interface between the clinical side of care and patients by introducing novel patient-provider communication channels (i.e. including text, video, etc.).</td>
<td>Ongoing. Initiated in 2008. New organisational structure in place to deal with the new patient relation (telemedicine outpatient clinic)</td>
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<td>BEPPLO</td>
<td>implementing electronic care messages between the hospital and municipal care</td>
<td>Ongoing.</td>
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«Citizen platform» (helsenorge.no)

New service «Digital Dialogue» (e-consultation)
Example: paying for e-consultation

- What types of medical consultation can be made available?
- How much to charge? Shall it be charged exactly as a physical presence consultation?
- What will be the definition of start and end for consultations performed via asynchronous communication (sequence of messages)?
- How can it be ensured that patients will be aware of charges beforehand?
- How the charged amounts will be collected (e-invoices, e-payments, regular payments, etc.)?
Popular generic services:

- Secure email
- Change appointment
- Prepare for appointment

Linking hospital and patient
Example: change appointment

• Patient can register a wish to change the assigned appointment time:
  – Triggered by a ’real problem’ (avoid phone queueing)
  – Minimum information required, does not require log in

• Adoption process by the various outpatient clinics exposed various challenges:
  – Diversity: somatic vs psychiatric patients
    • Phone calls purpose
  – Occasion for educating and disciplining patients
    • Making patients aware of waiting times and instil realistic expectations
  – Expose different policies of appointment management
Improving Coordination between primary and secondary care in Norway

Means of the coordination reform:

1. Supporting communication through the introduction of ICT-based communication between hospitals and municipal health care units

2. Economic incentives:
   - Reallocated care funding (5 billion NOK) from hospitals to municipalities
   - Municipal co-payment of general hospital admissions (on selected somatic health services) incentive for prevention
   - when a municipality cannot receive a patient ready for discharge, it must pay the hospital 4500 NOK for every 24 hours the patient has to stay in hospital.
What we looked for and how

• We examined the effects (benefits and drawbacks) of the two measures as perceived by health-care professionals in primary and Hospital care, and discusses the consequences for primary-secondary care coordination

• 27 Interviews: at Hospital and at 8 different Municipalites (mainly ordering office) and 1 Advisor of Health Authority

• The interviews developed along the following themes:
  – issues of concern in collaborating with the counterpart
  – benefits/challenges of the new communication system and effects for the coordination primary-secondary care
  – effects of the changed incentives system (co-financing and payment regulation) for the coordination primary-secondary care
Possible directions emerging from framing as “digitalization”:

• Digitization as a form of representation triggers a chain of transformations ala Latour (reduction and amplification),

• Digitization as a form of mediation creates new arenas for bestowing actors with rights of selection, exclusion, interception, etc.

• Digitization as datafication: "byproducts" of digitized acting (data generated) acquire value and follow their own trajectories