Managing collaboration across boundaries in health information technology projects

K. Garrety, A. Dalley & P. Yu  
(University of Wollongong)  
I. McLoughlin (Monash University)  
R. Wilson (Newcastle University UK)
Introduction

- The problems – organisational, social, cultural, political ...

- ARC Discovery Project 2011-13: Retrospective, comparative study of small & large interorganisational EHR projects in Australia & England

- What has been tried so far? With what consequences? What can we learn?
Interorganisational EHR

- Focus on the boundaries between specialisms / interested parties - ICT developers, clinicians, policymakers, bureaucrats, patients

- Interactions?? Collaboration??

- Boundary objects & processes
Boundary objects

- Star & Griesemer 1989 – a museum of vertebrate zoology

- Physical & conceptual ‘things’ that are “plastic enough to adapt to local needs and the constraints of the several parties employing them, yet robust enough to maintain a common identity across sites”
Some examples

- Software architectures, blueprints, prototypes, contracts, databases, standardised forms & operating procedures
- (Potentially) the PCEHR and associated artefacts – ConOps, websites, rules & legislation
An important point...

There is a difference between ‘designated’ or ‘intended’ boundary objects and objects that actually do facilitate coordination and collaboration across occupational groups.

(Levina & Vaast 2005)
A relevant variable

- Complexity of boundaries (Carlile 2004)
  - similarity / differences in knowledge
  - interdependencies
  - novelty
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<tr>
<th>Nature of boundary</th>
<th>Boundary processes</th>
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<tr>
<td><strong>Information processing:</strong> similar knowledge, low novelty &amp; independence</td>
<td><strong>Transfer</strong> of knowledge across boundaries is sufficient</td>
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<td><strong>Interpretive:</strong> some difference in knowledge, some novelty &amp; dependence</td>
<td>Knowledge needs to be translated across boundaries</td>
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<td><strong>Political:</strong> diverse knowledge &amp; interests, novel, interdependent</td>
<td>Knowledge (&amp; routines &amp; practices) are transformed</td>
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Problems arise when boundaries are misrecognised – for example, when knowledge is transferred across a politically complex boundary.
(Potential) boundary objects

- A web interface connecting hospitals & GPs (Australian regional)
- Animated simulations (England ERDIP)
- Business Architectures & Concepts of Operations (Australia national)
- Output-based specifications (England national NPfIT)
A few boundary processes

- Steering committee & intensive face-to-face boundary work (Australian regional)
- Ethnographic observations, focus groups with users using simulations (ERDIP)
- Circulation of draft architectures, feedback invited (Australian national)
- Use of OBS to ‘lock in’ developers (England NPfIT)
Some observations

- Even small regional projects require *a lot* of skilled boundary work.

- So far, national projects have *very seriously under-estimated* the amount of skilled boundary spanning required to develop workable systems.

- Consultation around boundary objects is not enough. Ongoing co-production is needed to transform systems and routines.