

# 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

<b>Nature of boundary</b>	<b>Boundary processes</b>
<b>Information processing:</b> similar knowledge, low novelty & independence	<b>Transfer</b> of knowledge across boundaries is sufficient
<b>Interpretive:</b> some difference in knowledge, some novelty & dependence	Knowledge needs to be <b>translated</b> across boundaries
<b>Political:</b> diverse knowledge & interests, novel, interdependent	Knowledge (& routines & practices) are <b>transformed</b>

*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