

# Two perspectives

- Doing e-social science
  - Internet data: new realities talking about old realities?
- Studying the development and effects of e-social science
  - Social dimensions of e-social science infrastructures

# E-Social Science Infrastructures: a social informatics perspective

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# Change the social sciences with ICT?

- Yes:
  - (some) researchers try out new possibilities
- Old phenomenon:
  - Derek de Sola Price: instrumentalities
- But how?
  - variation, selection, co-evolution

# Big promises

- New data and data types, and new analytical tools
- New forms of theorizing: micro modeling and simulation
- Integrating different data
- Universal access to data, tools, documents
- New infrastructures for collaboration

# E-social science

- Progress, new phase, bridging the old (qualitative and quantitative) divides  
or
- Another approach in the already heterogeneous social sciences

Important from a science policy perspective

# Social informatics

- Computerization as social movement
  - Universal access to many heterogeneous data as rhetoric
  - Mobilizing resources as goal
- The web of computing
  - Complex arena, Context
  - Second order effects

# Second order effects

- Old technology: the journal system
- New technology: more data less data

# Investigating the social dynamics of e-social science

- Several case studies
- Mainly in the ecological domain
  - Started earlier
  - Even more complex (physical, biological, climate, social, economic, behavioral)
  - Distance
- NWO grant

# Theoretical perspectives

- Learning from the past
- Communities of practice
- Bridging communities of practice
- Social shaping of infrastructures: who is in and who is out?

# Learning from the past

- Not much investigated about how researchers use data and data infrastructures

# Communities of practice

- Originally: social learning in co-located small communities of skilled professionals
- Now: broad concept, various types
- Co-location is not a characteristic
- ICT improves knowledge sharing within CoP's
  
- Invisible (closed) colleges, but not aware of this
- Trust & identity -> closed, restricted learning (paradigm), not much exchange with others

# Bridging CoP's with e-science?

- Infrastructures often focusing on codified knowledge
- Metadata systems to support access and use, and to enable integrating data
  - Differences of meaning between fields (and in reality)
- Metadata systems within a CoP: simple, between CoP's: very difficult
  - Choice: depends on the actors involved

# The web of computing

- Case studies: who are the actors that are in and out, and on what level: CoP, decision making arena, etc
- Producers of data
- Users of data
- Providers of the data infrastructure

# 1: Ecological data infrastructure, first findings

- Rhetoric vs. practice: Different interest and positions
  - the ‘champions’: progress as survival
  - data providers: providing and non-providing
- Many data-types as aim, but start narrow :
  - Learning of lock-in?
- Step by step strategy: in the end nobody can stay out
- And where are the users?

## 2. Social data, a practitioners report

- Rhetoric vs. practice:
  - the social science dream machine versus reality of narrow selections
  - Start of learning or lock-in?
- Arena's at various levels tending to lock-in
  - Infrastructure projects
  - National policies for social data sharing
  - EU policies: constructing coalitions for research infrastructures

# Conclusions

- How to create bridging infrastructures is a socio-technical problem / and unsolved
- Second order effects:
  - Infrastructures that exclude
  - More data - less data
- Emerging and existing coalitions resulting in early lock-in
- How stimulate e-social science without destroying social science heterogeneity?