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Towards greater systemisation in CI research: an exploration of social development as a framework for comparison and understanding

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Abstract

The theme of complexity alludes to the difficulties community informatics (CI) researchers face when analysing use of ICTs by communities. In response, de Moor (2009a, 2009b) and Stillman (2010) identify the need for greater systemisation of CI research that enables complex socio-technical processes to be analysed over multiple cases. The principle by which such systemisation should occur is open to debate. It seems improbable that a single theoretical approach, at least in the short term, is going to satisfy everyone as greater systemisation is pursued. The paper suggests that, as a first step, efforts should be devoted to better appreciation of philosophical principles that underpin theories and their often unarticulated assumptions. In a spirit of inclusivity, the paper therefore argues that efforts to systemise CI research should seek to include a variety of theoretical frameworks and relate such frameworks on the basis of an accepted framework. As an example of such a framework, the work of Hall and Midgley (2004) in social development is provided to demonstrate the means by which different theoretical approaches can be understood and compared in relation to three dominant areas of discourse in social development. The paper explains this framework using research carried out in relation to community technology centres (CTCs) in regional New South Wales, Australia. While Hall and Midgley's framework reflects three areas of discourse, they leave the way open for additional areas of discourse to be included, namely those derived from indigenous knowledge.

Keywords

ci, research, exploration, social, development, framework, greater, comparison, systemisation, understanding, towards

Disciplines

Physical Sciences and Mathematics

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Towards greater systemisation in CI research:

An exploration of social development
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Introduction

- The paper shies away from notions of “grand theory”
- In seeking to achieve such a goal, the paper assumes understanding between knowledgeable participants is paramount as a precursor to theory development
- The method in this paper seeks to enable dialogue to occur

Key assumptions

- The development of a single CI theory that is acceptable to the majority of CI adherents is a longer term project
- People that subscribe contending philosophies understand the world differently
- Understanding the philosophies of others provides a vehicle for theory development

Complexity of CI research

- The socio-technical nature of CI research sets it apart as a difficult area to study
- Many assume that the introduction of ICTs is a straightforward process that will inevitably lead to benefit
- In contrast, the deployment of ICTs in a community can be a “messy” process that is highly contingent on prevailing circumstances.

The need for systemisation

- Kling advises that a useful first-step in developing theory is the systemisation of case study research to enable a body of coherent knowledge to be developed
- This sums up what this paper seeks to achieve.

Framework for systemisation

- Hall and Midgley's normative theories of social development are used
- They observe that social development programs appear to be factored on three alternative philosophies
- Each of these philosophies makes assumptions about 'how the world works'

Three normative approaches to social development

- 1 Populist approach
- 2 Enterprise approach
- 3 Statist approach

Populist

Social development is best achieved through the actions of groups of people working cooperatively for the benefit of their community

- **Assumption:** community-based processes invariably lead to social development
- **Things to look out for:** cooperation; interdependent relationship; active community mobilisation; participation in decision making.

Enterprise

Social development is best achieved through the commercial provision of services by the private sector

- **Assumption:** a viable commercial market exists for services that promote social development
- **Things to look for:** managing the development project as a business; commercial provision of services; competition; entrepreneurial activity; market failure

Statist

Social development is best achieved through the provision of services by government

- **Assumption:** governments invariably work to achieve social development outcomes for its citizens.
- **Things to look for:** government sponsorship/management of programs; high dependency of individuals on government for daily needs.

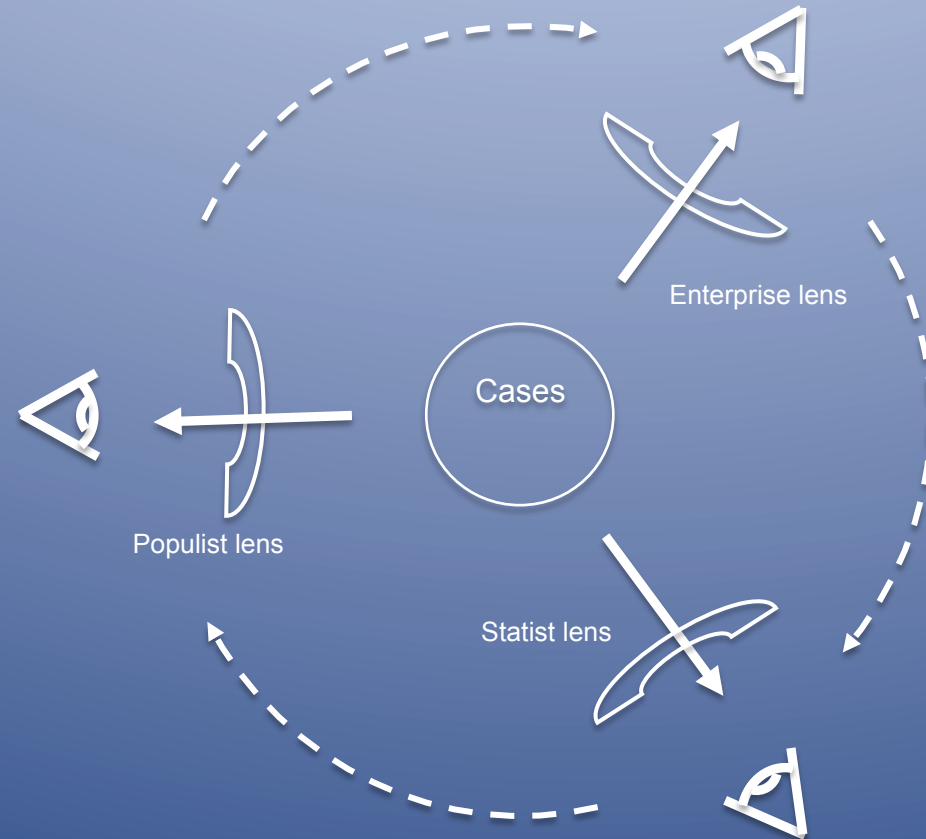
The case

- NSW CTC Program
- Government (federal and state) that funded 82 CTCs between 2000 and 2005
- Funding ceased in 2005 leaving each CTC to find its own way to sustainability
- In June 2008, 54 CTCs were still in operation

The research

- Seventeen cases were studied to develop a global perspective of CTCs in NSW
- When case accounts stopped yielding significantly contrasting data, further investigations of cases were stopped

Research Design



Three normative theories to social development

Statist

Governments play a central role in improving social conditions
(collectivist philosophy)

Enterprise

Social development is best achieved through the commercial provision of services by the private sector
(individualism)

Populist

Social development is best achieved through the actions of groups of people working cooperatively
(Populist philosophy)

Discussion

- Hall and Midgely, in outlining a case for the development of “holistic” social development seek to bring together the strengths of each of the normative approaches while simultaneously seeking to mitigate their weaknesses.

	POPULIST	ENTERPRISE	STATIST
Analysis of processes internal to CTC	Positive interpersonal and reciprocal interactions among staff, volunteers and customers	CTCs were managed in a cost effective way based on a business plan	CTCs valued their autonomy from government highly. Some were searching for assistance from government
Analysis of processes external to CTC	Broader community appreciated the role that the CTC as an important actor in the town	CTCs were active participants in the town's economy; entrepreneurial activities were evident	Some confusion about Government's role as customer was evident
Contradictions	Cooperative behaviour and volunteerism were not sufficient to sustain CTCs	Income streams were insufficient to sustain CTCs	Government priorities do not always work to achieve social development

Central challenge of CI theory that the case presents...

- Managers were not advocating a return to a Statist model of social development
- CTC managers seemed to be asking to define new modes of engagement with government.
- This mode of engagement appears as one that
 - gains some support for their operations,
 - which did not require them to cede autonomy back to centralised government control

Thinking more broadly...

- At a conceptual level the three approaches to social development can be brought together.

The strength of the *Populist* approach

- The effective-use principle of CI is well served by the Populist approach to development
- Acknowledgment of the importance of cooperative relationships among community members in seeking to address local problems through ICTs.

The strength of the *Enterprise* approach

- Cost effective and responsible management of finances appears as a beneficial approach
- Clearly insufficient to be an all encompassing logic given the difficulties in establishing viable commercial contexts for ICT based development projects

The strength of the *Statist* approach...

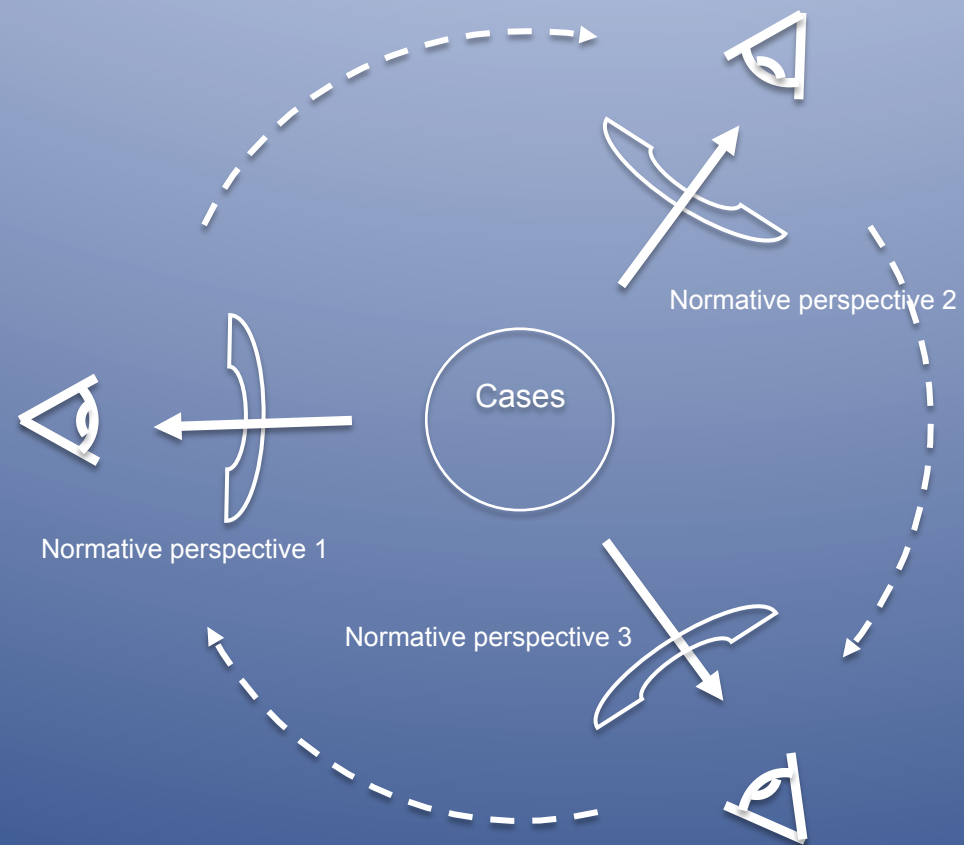
- News flash! Government has an important and ongoing role when considering ICT-based development
- How to best engage with government to develop best scenario solutions? that is *the* question

The strength of the *Statist* approach...

- CI's support for community activism suggests that relationships with government can be a challenging one
- Inter-government organisations and non-government organisations may fill the role of “lender of last resort” when government is not able to fill this role

Postscript

- The three approaches are not set in stone
- Any group of related principles could be used to triangulate on CI
- Given the numbers of people throughout the world whose normative perspectives are drawn from indigenous cultures and religions the need for a more systematic inclusion of such perspectives appears as a natural progression for CI.



Postscript

- The fundamental approach remains
- The method is to:
 - articulate fundamental philosophies and
 - expose hidden assumptions
- with a goal to better understanding the implications of ICT use in their local community context.

Questions?

Thank You!

Application of *Populist* constructs to the case studies

- Use of the Internet and computer applications were valued highly (>50% of respondents)
- Email and office applications were rated highly
- Social interaction (18%) was rated as a valued aspect of the services offered by the CTC

Application of *Populist* constructs to the case studies

- 90% of respondents nominated the CTC as a place in which they had learnt new knowledge and skills. Strongly represented in this data was IT skill development (80%).
- 71% of respondent indicated that the CTC had been a place where they had learnt skills in community group participation.

Application of *Populist* constructs to the case studies

- All of the cases enjoyed a significant degree of freedom to pursue initiatives that were aimed at addressing local problems.
- However this freedom was not unbridled because the initiatives were shaped by contingent circumstances.

Application of *Populist* constructs to the case studies

- Case study accounts reflect positive interpersonal and reciprocal interaction between staff, volunteers and customers within a CTC.
- CTCs would not have been able to remain operational if such cooperation was absent.
- The broader community appreciated the contribution that CTCs had made to their local communities.

Application of *Enterprise* Constructs to the Cases

- CTC managers displayed responsible financial management with a strong emphasis on cost containment and adherence to a business plan
- Managers displayed a willingness to integrate their CTCs into the town's economy
- Most managers were pessimistic about future commercial viability of their CTC

Application of *Enterprise* Constructs to the Cases

- The CTC played an important role in introducing ICTs to small business in their town
- The goal of developing CTCs as viable independent businesses, as originally planned in the NSW CTC Program, was not fully realised.

Application of *Enterprise* Constructs to the Cases

- The emphasis on business development in the NSW CTC Program had given impetus to a wide range of idea generation that generally addressed local needs.
- Thus, the connection drawn between private sector activity and entrepreneurialism was evident.

Application of *Statist* Constructs to the Cases

- The significance of the Statist perspective is best reflected in the absence of government involvement in the day-to-day running of the CTC.
- Both CTC staff and local government bureaucrats found this most difficult to cope with

Application of *Statist* Constructs to the Cases

- Despite the intention of the NSW CTC Program to remove governments from direct operational responsibility for CTCs, many CTCs relied on local government for partial ongoing support.