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Paradigms and Cadastral Research

Lani Roux & Michael Barry

Spatial Data Serving People:

Land Governance and the Environment – Building the Capacity

7th FIG Regional Conference

Hanoi Vietnam

19-22 October 2009





Taxonomy of Theory

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World View

- Paradigm a framework of basic assumptions
- Grand theory generalisations that transcend the border of disciplines
- Formal generalised substance explain an area of inquiry
- Substantive theory thesis, antithesis, synthesis; first level
- Hypothesis / Research question proposition stated for verification or falsification
- Proposition suitable statement of a concept for testing
- Concept move from the phenomena itself to data, bound by definitions and symbols.
- Definition
- Symbol
- Phenomena

Glazier and Grover 2002











Methodologies and Methods

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Silva & Stubjær (2002) Most common Methodology

- Case studies

Methods

- Documentary research
- Questionnaires
- Interviews
- Comparative analysis
- Participant observation

Other Methodologies:

Ethnography
Grounded Theory
Information Systems
Methodologies
Systems Theory

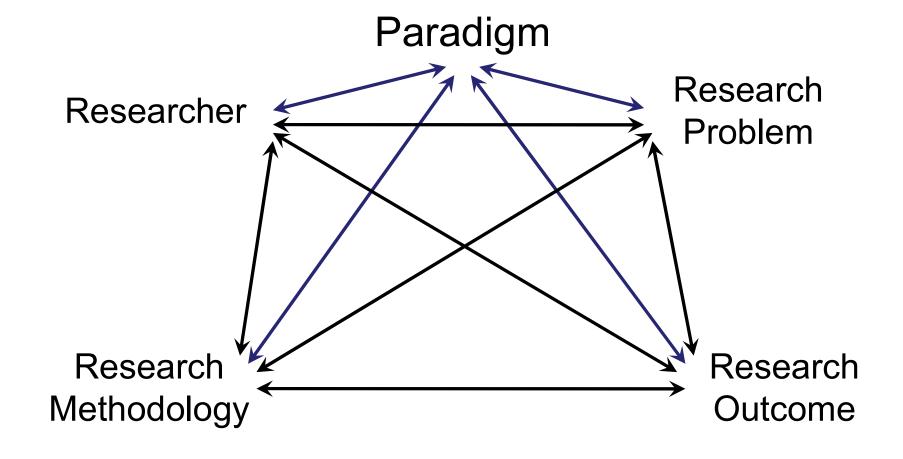




Research Design

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Four Paradigms

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Postpositivism

Empirical approach

Social Constructivism

Humans and their interaction with the world

Advocacy

Marginalised people

Empowerment / Collaboration

Pragmatism

Problem focussed

Practical solutions





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Postpositivism

Assumptions:

Effect follows cause (deterministic)

Problems can be reduced to parts (reductionism)

"Truth" can never be determined

Research:

Theory and hypotheses testing - deductive
Objective researcher –recognises world view and
bias of researcher

Outcome:

Explain causal relationships





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Social Constructivism

Assumptions:

Variety of perspectives

Meaning constructed through interaction

Research:

Focus of historical and cultural aspects Acknowledges researcher bias

Outcome:

To describe subjective patterns of meaning





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Advocacy

Assumptions:

Inseparability of research and politics Inclusion of marginalised people

Research:

Participatory research

Outcome:

Empowerment of community Action agenda





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Pragmatism

Assumptions:

Real world focussed

Not overly concerned with questions about reality

Research:

Mixed methods

Any method, technique or paradigm that works

Outcome:

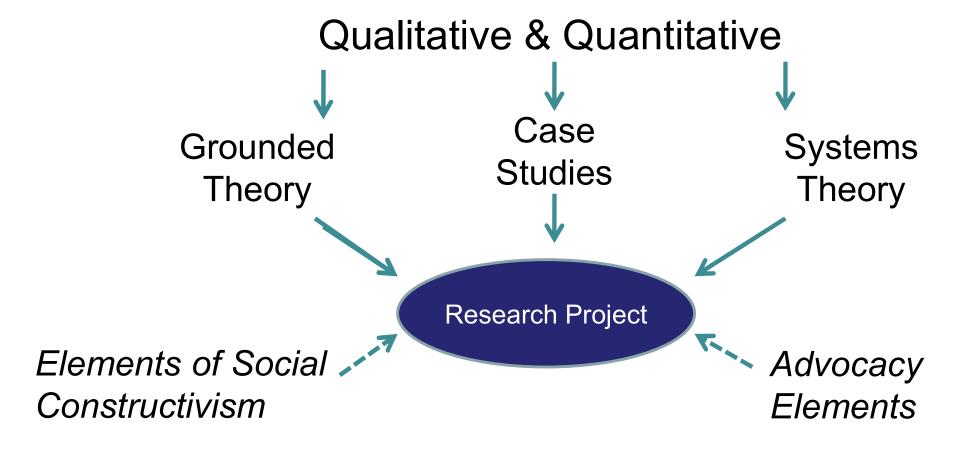
Practical solutions but strong theoretical basis and understanding of theory. Not a practical solution based on "I'm practical and unconcerned with theory".

In the Field

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Pragmatism









Department of Geomatics Engineering

Schulich School of Engineering



www.geomatics.ucargary.ca

ENGINEERING

Applying Pragmatism

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- Informal settlements
- Life histories
- Workshops
- Literature
- Officials
- NGO's
- Policy makers
- Workshops on registration options
- Develop hypothesis speculative, persuasive, conclusive
- What's the big picture?





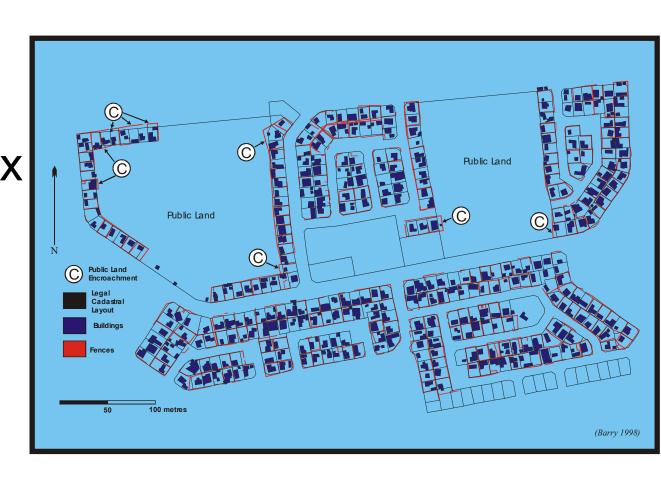


Applying Pragmatism

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- Aerial surveys
- Positivist view x number of encroachments, therefore fixed boundaries are inappropriate.







Conclusions

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Diverging views – (1) paradigm needs to be explicit (2) you can mix paradigms

Researchers need to make a contribution to developing a theoretical framework for cadastral research

Pragmatism can provide an initial framework but dont get caught in the "practical and ignore theory" trap





References

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Silva, MA & Stubkjær, E 2002, 'A review of methodologies used in research on cadastral development', *Computers, Environment and Urban Systems*, vol. 26, no. 5, pp. 403-23



