

Interdisciplinary research: benefits and burdens

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An interconnected world

- Human actions reverberate into many places across the globe, over time, and from one generation to another.



Sustainable Development

- Calls for exploring ways of meeting the societal needs that are environmentally more sustainable.
- Concerned with the links between society and nature
- Inherently interdisciplinary.



What is a discipline?

- The word originates from the Latin words *discipulus* (pupil) and *disciplina* (teaching).
- It means not only “training someone to follow a rigorous set of instructions”, but also “enforcing obedience” (Krishnan, 2009:8).
- **Academic discipline:** systematic knowledge production and organisation of learning.

Disciplines means different things to different disciplines

- **Philosophical** perspective: academic disciplines are about epistemology
 - how knowledge is organised and relates to reality
- **Anthropological** perspective puts the emphasis on cultural practices
 - Disciplines as ‘academic tribes’ who inhabit and defend various ‘knowledge territories’

(Becher, 1994).

- **Sociological** perspective perceives disciplines in terms of the sociology of work
 - A form of societal division of labour through professionalisation
- **Educational perspective** focuses on pedagogy
Disciplines are distinguished by what they offer in terms of:
 - knowledge or knowing what (truth)
 - skills or knowing how (learning)
 - values or knowing why (moral)

- **Management perspective:**
 - dividing departments along disciplinary lines to align the supply-side of knowledge to its market / societal demand-side
 - Disciplinary structures are a management problem; a problem of how to market knowledge
- **Historical perspective:**
 - focuses on the wider context which leads to the foundation of an academic discipline, its change over time, and its particular trajectory

What is a discipline?

- **Disciplines** are social constructs evolved through historical processes and perform multiple functions:
- **Epistemologically**, particular objects of enquiry and rules for:
 - what constitute a ‘problem’
 - what counts as evidence
 - what is considered as acceptable methods by which knowledge is produced, evaluated and exchanged
- **Socially**, they provide:
 - shared terminologies and discourses
 - identities, peers, and careers
- **Institutionally**, they reproduce themselves through
 - university courses, academic departments, discussion fora

Overcoming 'disciplinary tribalism'

- **Multi-disciplinary:** multiple disciplines coming together but, each working primarily with their own framings and methods (*science of interaction*)
- **Inter-disciplinary:** occupying the spaces between disciplines to build new knowledge (*science of integration*)
- **Trans-disciplinary:** creating a cross-road in which different disciplines intersect and problematize each other through a social learning process (*science of hybridisation*)

Trans-disciplinary approaches

- Involve organisation of knowledge around complex subjects, or real world, problems rather than disciplines
- Are more likely to produce outcomes which are more than the sum of different parts
- Help greater awareness of one's own disciplinary knowledge

A continuum of approaches

- Cooperation versus transformation
- Interdisciplinarity occupies the broadest position on the continuum:
 - **Cognate** interdisciplinarity *within* natural or physical, or social sciences
 - **Radical** interdisciplinarity *between* them, spanning the natural and the social

1. Epistemological challenges

- Persisting disciplinary silos with regard to:
 - Understanding what constitutes knowledge
 - Intellectual traditions
 - Methodological approaches
 - Problem definitions
- Disciplinary “‘experts’ tend generally to regard fields other than their own with considerable suspicion – spurious at worst, at best irrelevant... ‘interdisciplinary’ research is often actively discouraged as being, among other things, too speculative”

(Baigent et al, 1982)

2. Institutional barriers

- Institutional practices
- Funding mechanisms
- Assessment and recognition of research excellence
- Publication strategies and refereeing processes

Benefits of interdisciplinary perspectives:

- Providing useful means of dealing with complex, ‘wicked’ problems
- Real world issues require synthetic and integrative approaches

Conditions for making it work

- Mutual trust, respect and sense of humour
- Confidence in one's own discipline but without being defensive
- Space and time for: sharing of knowledge, different framing of problems, and construction of methods
- The aim is problem setting & problem solving, rather than doing interdisciplinary work for its own sake
- Using intermediaries (persons and processes)



**An interconnected world needs
new forms and patterns of
intellectual inquiry that challenges
existing disciplinary and
institutional boundaries**



This paper can be cited as:

- Davoudi, S. and Pendlebury, J, 2010, Evolution of planning as an academic discipline, *Town Planning Review* 81(6):613-644

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