

‘Classical’ innovation studies and their relevance for analysing social innovation

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Motivation

‘Classical’ innovation studies and social innovation (SI) analysis: different schools (theoretical frameworks) in isolation (?)

Crossing borders \Rightarrow mutual learning?

A less ambitious question: Can ‘classical’ innovation studies enrich the analysis of SI?

Research questions (outline)

- (i) If and how the various definitions of social can be made more operational and rigorous
by applying some standard methods and basic definitions used in innovation analyses to clarify the unit of analysis and the degree of novelty
- (ii) Which models of innovation can be used to inform SI analysis
- (iii) What can be learnt from the analysis of (business) innovations offered by classical, neo-classical, mainstream and evolutionary economics for SI analysis
- (iv) STI policy rationales derived from mainstream and evolutionary economics: their relevance for SI
- (v) Methodological and policy lessons from the innovation systems literature for SI

**THE RELEVANCE OF DEFINITIONS (NOTIONS)
USED IN 'CLASSICAL' INNOVATION STUDIES**

Social innovations are ...

new solutions (...) that simultaneously meet a social need – more effectively than existing ones – and lead to new or improved capabilities and relationships or collaborations and better use of assets and resources (Young Foundation, TEPSIE)

acceptable progressive solutions for exclusion, deprivation, alienation, lack of wellbeing; (...) actions that contribute positively to significant human progress and development (...) improvement of social relations – micro relations between individuals and people, but also macro relations between classes and other social groups (Moulaert et al., 2013: 17)

“changes in the cultural, normative or regulative structures (or classes) of society that enhance its collective power resources and improve its economic and social performance” (Heiskala, 2007: 74)

⇒ The unit of analysis is different in the above definitions; they are applicable for different tasks

Unit of analysis – various SI definitions

Unit of analysis	SI definition
a single social innovation project	
a 'bunch' of social innovation projects occurring concurrently – or even in a co-ordinated way	Heiskala (2007)
both types (both units/ levels of analysis)	Young Foundation, TEPSIE (2012) Moulaert et al. (2013)

The CrESSI definition of SI:

The development and delivery of new ideas (products, services, models, markets, processes) at different socio-structural levels that intentionally seek to improve human capabilities, social relations, and the processes, in which these solutions are carried out.

“Levels” of SI

- i) incremental: goods (products and services) that „address social need more effectively or efficiently” (Nicholls et al., 2015: 3)
It covers both incremental and radical innovations
- ii) institutional: „harness or retool existing social and economic structures to generate new social value and outcomes” (ibid: 4)
Structural changes; not ‘rules of the game’! (North, 1990)
- iii) disruptive social innovation “aims at systems change” (ibid: 3)
changes in power relations, social hierarchies, and cognitive frames
An overarching term with a rather ‘wide arch’ – but could be a good starting point for more detailed empirical analyses

Disentangle different (relevant) units of analysis when studying SI

Subject (or level) of change

The degree of novelty

Subject of change	Incremental change	Radical change(s)	Relevance for SI
Goods products and services	a more convenient, less noisy horse-driven carriage	animal-powered vehicles → automobiles	relevant
Processes production or delivery	a better organised, more efficient assembly line	automation of certain tasks at an assembly line	could be relevant in some cases
Organisations internal structure: units and their connections; behaviour and rules, routines, management and financial methods, business models guiding behaviour/ operations	a reorganised (better managed, more productive) firm	workshop → factory; Fordist mass production → lean production; R&D units of large firms (19th century)	relevant, with some amendment; besides business organisations, several other types and 'hybrid' ones need to be considered

Disentangle different (relevant) units of analysis when studying SI (2)

Subject of change	Incremental change	Radical change(s)	Relevance for SI
Markets	better connected regional markets in a given national economy	new markets discovered and 'conquered' to obtain inputs and sell outputs (Far East, Americas, Africa, ...)	relevant, with crucial amendments: how to serve the previously unmet needs of people, what other changes are needed?
Technology systems	more efficient electric lighting systems	gas lighting → electric lighting; manual household devices → electric ones	relevant if re-interpreted as a set of socially, organisationally, and economically interconnected social innovations
Techno-economic paradigms	a given paradigm becomes more efficient, more widely accepted due to various types of improvements	shift from a certain paradigm to a new one	could be a relevant starting point to refine the notion of "disruptive social innovations" (Nicholls et al., 2015)

Further observations and caveats

In real-life cases the borders are often blurred between incremental and radical change, e.g. the 'bottom-of-pyramid' markets.

Technological changes are only viable when the business model and several aspects of management and marketing methods (BoP: perception of a large group of previously 'unserved' people as a new 'market segment', adaptation of pricing, marketing and sales methods to these new opportunities, ...) are changed at the same time and aligned with each other.

Further observations and caveats (2)

Difficult to establish the degree of novelty of a given social innovation

new to a certain community, a country or the world?

To what extent is it important? Usually intellectual property rights are not an issue for social innovators

Yet, social status – being inventive and obtaining recognition for that – might play an important role: could give impetus to initiate/ be involved in certain social innovation projects

It is an empirical question to establish the role of prestige (respect and thus higher social status of social innovators) in SI endeavours

Further observations and caveats (3)

Difficult to identify whether a given social innovation is an 'isolated' new solution or an element in a set of interconnected social innovations, affecting several groups of people or an entire community at the same time, occasionally leading to the emergence of new social structures, norms, institutions, behaviour, value systems and practices at a higher level of aggregation (sub-national regions, nations or supra-national regions [for example, the European Union])

Techno-economic paradigms: could be a useful guiding principle in SI analyses, namely the interconnectedness of technological, organisational and business model innovations, together with the emergence of a new, widely accepted 'common sense'

Further notions (with many uses, definitions; debates among authors)

Frugal innovation: serving people with little means

Responsible research and innovation

a transparent, interactive process by which societal actors and innovators become mutually responsive to each other with a view to the (ethical) acceptability, sustainability and societal desirability of the innovation process and its marketable products in order to allow a proper embedding of scientific and technological advances in our society

Further notions (with many uses, definitions; debates among authors)

Inclusive innovations

- *process*: including disadvantaged groups in production
- *outcome*: meeting previously unmet demand or need
- *systems of production and delivery*: integration of different market and non-market mechanisms
- *inclusion in the innovation system*: including marginalised knowledge systems and practices in the innovation process

Sustainable innovations, innovation for sustainable development

Does innovation always bring a positive change?

„acceptable progressive solutions for a whole range of problems” (Moulaert et al., 2013)

„changes (...) that enhance its collective power resources and improve its economic and social performance” (Heiskala, 2007)

Similarly, profit-seeking innovations are supposed to lead to improvement in quality of goods, productivity and performance of firms, health conditions of people, use of inputs and so forth

Yet, there could be undesirable consequences of innovation, including SI

Some discussions in the literature on these issues since the 1980s

Does innovation always bring a positive change? (2)

SI might also have its 'dark side' (Nicholls et al., 2015):

- no society is homogenous, not even those members of it, who are marginalised and disempowered: they still have their own values and views, and thus might perceive the same change process and its effects in different ways
- a certain measure/ solution that improves the situation of some groups can, in fact, affect other groups negatively – and not because they perceive in that way, but as an actual ('neutrally/ objectively measurable') impact

Function of SI

“(...) the function [of an NSI] is to contribute to economic performance on the basis of processes of creation and diffusion of knowledge. This corresponds to the normative focus of those who pioneered the NSI-concept.” (Lundvall, 2007b: 15)

Refine the definition of SI: a positive impact could be stated as a function (the main objective) of social innovation – instead of assuming (expressing) favourable change in the definition itself

ECONOMICS PARADIGMS – SOCIAL INNOVATION

Economics paradigms – social innovation

Neo-classical economics cannot accommodate social innovations

- the major goal is not optimisation in a strict economic sense
- social innovators do face uncertainty, too, not only calculable risks
- dynamic aspects are crucial
 - changes in the environment, in which social innovations take place
 - to induce this change is among the major goals of social innovation
- various types of changes – economic, technological, organisational, social (e.g. structural, behavioural) and political – are endogenous from the point of view of social innovations, and co-evolve. Policy governance sub-systems and the level of governance need to be considered, too.
- social innovators are neither ‘representative agents’, nor do they act on their own
 - have their own specific features, partly shaped by the context, in which they operate
 - need to interact with several other actors, and often form formal or informal networks to do so

Economics paradigms – social innovation (2)

Mainstream economics does not provide an adequate theoretical framework, either

Evolutionary economics offers some hints that can be relevant when analysing social innovations

- dynamics
- heterogeneity, generating diversity
- systemic view (actors, interactions, 'rules of the game')
- types, sources and forms of knowledge, distributed knowledge bases
- context (**vs.** an ahistorical, highly abstract approach)

**POLICY RATIONALES DERIVED FROM
ECONOMICS PARADIGMS**

The market failure argument

A strong intellectual property rights (IPR) regime is needed to induce profit-seeking innovations

This logic does not provide a sound basis for devising effective policies to promote social innovation

Gaining the recognition of being a creative social innovator is likely to be a stronger driver than protecting IPR

Policies should rather promote the dissemination and exploitation of knowledge to foster social innovation than constrain these processes

The systemic failure concept

This way of thinking can be extended to social innovation without any theoretical constraint

Yet, system failures cannot be identified easily

It is a demanding and thus time-consuming task to establish

- what elements of an innovation system are missing or fledgling
- what types of connections/ interactions are missing, weak or inappropriate
- what institutions ('rules of the game') hamper innovation processes

Systemic failures: their relevance for SI

Failures hampering business innovation	Relevance for analysing social innovation
<p data-bbox="98 401 552 451"><i>Evolutionary failures</i></p> <ul data-bbox="98 462 923 1148" style="list-style-type: none"><li data-bbox="98 462 739 568">• generation of technological opportunities<li data-bbox="98 579 890 685">• learning by firms (accumulation of capabilities)<li data-bbox="98 696 923 1148">• lock-in in inferior technology (competence trap), trade-offs<ul data-bbox="150 819 923 1148" style="list-style-type: none"><li data-bbox="150 819 790 925">○ exploration vs. exploitation (current vs. future profits)<li data-bbox="150 936 875 986">○ variety generation vs. selection<li data-bbox="150 998 923 1148">○ tight IPR vs. exploration of new approaches/ diverse competence base	<p data-bbox="967 401 1798 672">Not directly relevant, but could be used as a source of inspiration, e.g. as failures to generate opportunities for social innovation, learning by social innovation actors</p>

Systemic failures: their relevance for SI

Failures hampering business innovation	Relevance for analysing social innovation
<p><i>System failures (problems)</i></p> <ul style="list-style-type: none">• missing or weak elements ('nodes', actors)• missing, weak, or inappropriate connections among the actors• transition (system dynamics)	Directly relevant (with minor adjustments)
<p><i>Policy failures</i></p> <ul style="list-style-type: none">• weak learning (e.g. from previous practice, interactions with other actors, and good practices)• inflexibility in implementation• lack of understanding of sectoral characteristics• poor (no) vision-building• ineffective co-ordination of policies	Directly relevant

Source: Types of system failures are identified by Malerba (2009)

INNOVATION SYSTEMS

Innovation systems – social innovation

IS: a widely used notion, but no strict, generally accepted definition

boundaries, actors, and their interactions: depends on the questions and units (level) of analysis

ST and DUI mode of innovation

The systems approach could be a useful ‘focusing device’ (Lundvall, 2007a: 98-99); it could

- help organising and focussing the analysis of social innovations
- explain what and how has happened
- offer a sound basis for drawing policy proposals, as well as recommendations for social innovators for effective actions

Evolution of innovation systems

Changes at various levels

- actors (their routines, strategies, ...)
- knowledge bases (or knowledge infrastructures)
- technological paradigms and trajectories, (or 'search and problem solving heuristics', 'technological guideposts', 'dominant design', ...)
- sub-systems (e.g. R&D performers; STI policy governance sub-systems; financial, management, legal, IPR, S&T information and other service providers specialising in meeting the needs of innovators ...)
- institutions (legally binding and voluntarily set regulations and codes of conduct, unwritten rules of the game, commonly respected norms, ...)
- functions
- ...

Two types of dynamics in economic analyses

	Continuous adaptation (learning, gradual improvements/ fine-tuning)	Transition
Products	Improved manual (mechanical) typewriters	Mechanical → electric typewriters → PCs, laptops → tablets
Firms	Continuous adaptation to the external environment, fine-tuning of practices, methods, structures (demand in a market economy; new control mechanisms and incentives in a planned economy)	Change in ownership (nationalisation; or privatisation) Fundamental changes in products/ technologies/ markets (IBM, Nokia, Toyota, ...)
Economic sector	Entry/ exit of firms Expansion or contraction of the sector (without radical changes in products and technologies)	Existing sectors shift to a new principal product (analogue → digital camera) Emergence of entirely new sectors to exploit new patterns in division of labour (preparation and preservation of food by households → food industry), and/ or new technologies and business models (chemicals, pharmaceuticals, steel, automotive, electronics, ...)
National economy	Evolution of capitalism Economic reforms in a planned economy	Feudal → capitalist economy Planned → market economy

CONCLUSIONS

Definitions, notions

Several notions used to analyse innovation in economics could be useful to analyse social innovations

- stress important features
 - e.g. degree of novelty: IPR **vs.** prestige?
- identify types of innovation (leading to a taxonomy of SI?)
- be conscious of the unit (level) of analysis

Innovation – But For Whose Benefit, For What Purpose?
(Hull and Kaghan, 2000)

Lock-ins

‘Destructive creation’ (Calvano, 2007; Soete, 2013)

The ‘dark side’ of social innovation (Nicholls et al., 2015)

Models of innovation

Social innovations mobilise many different types of actors, who generate and exploit a wide variety of knowledge, and thus *the multi-channel interactive learning model of innovation* seems to be the most relevant to analyse these processes

The market selects among business innovation attempts
As for social innovations, the selection process seems to be much more complex, with more actors playing a role, and thus bringing their own assessment (values) into play: social innovators; beneficiaries; policy-makers; politicians; other potential sponsors; and to some extent the media and other opinion-leaders

Evolutionary economics – social innovation

Key notions of *evolutionary economics* could be relevant when analysing social innovation

- the importance of dynamics;
- uncertainty;
- differences among contexts;
- learning; various types, forms and sources of knowledge;
- path dependence;
- processes of generating variety; selection among diverse solutions; networking and co-operation among actors;
- co-evolution of various types of changes.

Social innovations draw on different types (scientific and practical) and forms (codified and tacit) of knowledge, stemming from various sources (organised and systematic R&D activities, other types of search processes, e.g. those 'informed' by practitioners)

⇒ Diversity is a key notion

Analysts and decision-makers should be aware of the *diversity of social innovations*, too, in terms of their nature, drivers, objectives, actors, and process characteristics

Systems approach – social innovation

Focusing device

Levels of change

Types of dynamics

The functions of innovation systems (Bergek et al., 2005, 2008, 2010; Edquist, 2005, 2011) can be reinterpreted for analysing social innovations

Thank you!

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Creating Economic Space for Social Innovation



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