How Do Ideas Change the World? Patterns in Social Innovation

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SUMMARY

Social innovations are everywhere. Examples of social innovations are grand ideas like human rights, suffrage, parliament, separation of powers, but also more concrete innovations as Red Cross, mediation, carpooling, street art and energy cooperations. The field of social innovation has developed primarily as a field of trial and error, but there has been relatively little attention to its history, theory and working mechanisms. The central question in this chapter is: What are patterns in social innovations? Is it possible to 'peel off' social innovations to their basic working mechanisms and to identify patterns in social innovations on vitalising democracy, environmental policy, reducing crime, or creating employment?

This article starts with a definition of social innovation and a description of the various sectors in society which play a role in social innovation. Attention is focused on the process and the diffusion of social innovation. The core of this chapter is a list of 33 patterns in social innovations like: communicate, represent, collect, exchange, equalize, cooperate, share, celebrate, regulate, control, insure, standardize, protect, separate, choose, experiment and grow. The list is completed with concrete examples of social innovations throughout the ages. Clustered, there are four basic mechanisms that include most of the found patterns: Secure, Divide, Connect and Evolve. Finally, some concluding remarks are being made, especially about the role of networks in innovation and the possible impact of using these patterns in future social innovation.

Keywords: Social innovation, History, Innovation networks

1 Introduction

'The Book of Visions; an Encyclopaedia of Social Innovations' (Albery, 1992) contains an interesting timetable. This table shows that many things we now consider as normal, logic, usual, sometimes even old-fashioned, were once introduced as new ideas solving a social problem. Hospital: (500 BC), Prison: (1000 BC), Democracy: (500 BC), Human Rights: (1215, 1789, 1948). Modern examples of social innovations are Public Healthcare (1950's), NGO's like Greenpeace (1971) and crowdsourced collections of human thought like Wikipedia (2001).

'Social innovation' is a relatively new concept. There is a vast amount of literature on innovation in enterprises and markets. A lot of research has been done on creativity and innovation in a business context, for example on the development of new products and new services to meet customers' needs. There is far less attention for innovation in the public sector, for new ideas, proposals, plans and schemes which aim to make the world a better place. Social innovations that improve health, reduce unemployment, strengthen democracy or contribute to a better environment are more crucial for the well-being of future generations than a smartphone with new gadgets, or a new car model. The field of social innovation has developed primarily as a field of practice and there has been relatively little attention for its history, theory and underlying patterns.

There are several definitions of the term 'social innovation'. In some European countries like the Netherlands, 'social innovation' is restricted to workplace innovation, whereby ideas and suggestions of employees are the basis for continuous improvement of production processes. In this article I will opt for a broader definition by drawing upon earlier attempts. Social innovation has been defined as: 'innovative

activities and services that are motivated by the goal of meeting a social need and that are predominantly developed and diffused through organisations whose primary purposes are social.' (Mulgan, *et al.* 2007, 8) Another definition is: 'An innovation is termed a social innovation if the implied new idea has the potential to improve either the quality or the quantity of life. Social innovation can take the specific form of actions, movements, models, systems, processes, services, rules and regulations, or even new organisations or institutions.' (Ville and Pol 2008, 4) In this article I propose the following definition:

> *Social innovation is a novel idea or concept, meeting social or public needs, implemented in reality. Social innovations can be products, services, regulations, organisations or institutional arrangements, that have a broader social meaning than individual consumption and contribute to a just, free, happy and sustainable society.*

The discussion, what phenomena can be considered as a social innovation, has inevitably also a moral component and is subject to considerations on values. In this article, I will consider circular economy and intellectual property laws as social innovations, while terrorist attacks are not. This choice may seem obvious, but there are other cases which are not so clear. Can communism be considered as a social innovation? What about the Brexit? Some will wholeheartedly consider it as a social innovation, while others will strongly oppose to such a qualification and regard the Brexit as a pitiful restoration into isolation. Social innovation has, in other words, to do with our concept of 'a good life' and 'a good world' and there is only limited consensus about how such a good world should look like. It is always debatable: for whom this is good? to what extent? in what sense it is better than the existing situation? As stated in the definition we consider something a social innovation when it meets social or public needs and when it contributes to a just, free, happy and sustainable society.

2   Search for Patterns

This article aims to identify some underlying and recurring patterns in the field of social innovation. In this quest we can find some inspiration in the field of *technological* inventions. There has been some research on patterns in technological innovations, as described in registered patents. As a former patent officer, Genrich Altshuller (1926-1998) wrote articles and books on 'TRIZ', a theory of creative problem-solving. According to him, all innovations can be reduced to a number of principles. There appeared to be similarities between all those 100,000 inventions he and his team investigated. He found 40 recurring patterns, 40 characteristics or mechanisms (Altshuller, 1999).

An example is the principle of 'separation'. By removing a disturbing or harmful property, a product can get added value. Think, for example, of decaf coffee or non-alcoholic beer. Another principle is 'multifunctionality': a drilling machine that can also screw. Still other principles build on replacement of basic materials, for example a plastic bottle made from biomass. Or with changing dimensions (pc and tablet). Or 'proactive counteraction', as in a sunblock. Altshuller received recognition in the field of creative problem-solving, whereas his work almost completely focused on product innovation. It is unclear if it is possible to distillate a similar collection of patterns in the field of social innovation. The central questions of this chapter are:

What are the underlying patterns in social innovations? Is it possible to 'peel off' social innovations to their basic working mechanisms and to identify patterns in social innovations on reducing crime, vitalising democracy, creating employment or environmental policy? Could it be possible to define – in analogy to technical inventions - a set of 40 mechanisms behind innovations in society? Do social innovations in different domains like health, education, mobility or sustainability have characteristics in common?

In this article I will elaborate on these questions. Before doing so, I'll start with a short sketch of the various sectors in society which play a role in social innovation. Some remarks are made about the fact that inventing, creating and innovating are in fact social processes. The core of the chapter is a list of patterns in social innovations, with concrete examples. I will finish with some concluding remarks.

3   Social Innovation is Everywhere

Social innovation does not have clear boundaries. The nature of the term might suggest that it is restricted to grassroots initiatives, with their origins in civil society. In fact, social innovation may occur in all sectors of society: in the public sector through politics or government, in the non-profit sector through various NGO's, social movements and charities, but also in the private sector or by action research initiated by universities.

Examples of social innovations are grand ideas like human rights, suffrage, parliament, separation of powers, criminal law, but also more concrete innovations as Red Cross, mediation, carpooling, street art and energy cooperation's. The internet can be seen as the major social innovation of the past decades. 'With billions of people participating, there can be no doubt that it is the largest and most rapidly generalised social innovation ever. It has radically changed the most essential features of mankind, i.e. our ways of communicating and our ways of working together.' (Franz, *et al.* 2012, 4-5). With a closer look the internet is a cluster of innovations, combining new technologies, new processes, new products, and creating new outcomes which benefit individuals, companies and society as a whole.

Figure 1: *Social innovation in various domains.*

National and local governments can have a major impact on the invention and spread of social innovations, especially if they enlarge their capacities to facilitate and cooperate. Social innovation can be a trigger to redefine the role of public institutions and their relationship with society. The state is not the only responsible agent for providing public services and goods to solve social problems. The role of the state is changing: it becomes an enabler that promotes and stimulates co-creation of public services. In recent years local and national governments are starting open processes of collaboration in innovation networks: end-users and other relevant stakeholders participate in the development and implementation of social innovations. Stakeholders share their knowledge, experience and resources to produce innovative outcomes that are relevant to them. In several places one can see the emergence of new partnerships, new methods

and tools to stimulate civic engagement, democratic debate, and collective creation; evidence-based policymaking and smart regulation; crowdsourcing and participatory decision processes; open innovation; public sector innovation; and e-governance. (Addarii and Lipparini 2017, 19)

Often social innovations take place at the boundaries between sectors. In Bangladesh huge NGO's like BRAC and the network of Grameen organisations (from Nobel prize winner Muhammed Yunuz) act as public providers of health, education, financial services and employment. Some businesses have explicit social goals like The Body Shop, Ben & Jerry's, or Tony Chocolonely. Companies can play an important role in scaling social innovations by disseminating them through markets. Examples like fair-trade, clean-energy or biological food are embedding social innovation in the business model, shifting the mindset of investors and consumers. This is different from Corporate Social Responsibility (CSR): it is not just about legitimising a business, but on putting social goals and social innovation as a core purpose of the activities of the company, as in the recent growth of the so called 'B-corps'.

Some authors make a distinction between the realm of business innovation, focussing on gaining profits of new products and services, and the realm of social innovation, to meet public needs. (Ville and Pol, 2008). These two realms overlap because some innovations like for example the book, the train, the safety belt or the internet have led to profits and advantages both in terms of business and the common good. At the same time, one should keep in mind that social innovation is not necessarily a business innovation (take for example a constitution) and business innovation is not necessarily a social innovation (as the production of a new brand of cigarettes).

Social change often depends on alliances between what could be called the 'bees' and the 'trees'.

> "The bees are the small organisations, individuals and groups who have new ideas and are mobile, quick and able to cross-pollinate. The trees are the big organisations – governments, companies or big NGOs – which are poor at creativity but generally good at implementation, and have the resilience, roots and scale to make things happen." (Mulgan 2007 *et al.*, 20)

Both need each other, and most social change comes from alliances between the two.

4   Patterns in Social Innovation

Which are the driving forces within social innovations? Is it possible to peel social innovations of to their basic working mechanisms? There have been some first attempts to describe patterns in the field of social innovation, although they remain relatively close to the original technical 'TRIZ-principles', or focus on organizational patterns (see Zlotin *et al.* 2000, Saliminamin *et al.* 2003).

To gain insight into the underlying patterns of ideas, this research started by scanning the scientific literature and expert journals on social innovation. Then a selection of important social innovations was made; from the book '*1001 Ideas That Changed The Way We Think*' (Arp 2013) and *The Book of Visions; an Encyclopaedia of Social Innovations* (Albery 1992) the most important social innovations were selected. Subsequently a number of recent social innovations were added in the scheme below, based upon platforms such as Ideas from Europe, Social Innovation Academy (Europe), Social Innovation Challenge (Canada), Innovation for Social Change, and We ThinQ[1].

The selection was made with a focus on the realms of politics and society. Please keep in mind that there are several types of social innovations. Some are relatively small or restricted to a certain epoch or country, while others have a long-lasting global impact. Some are concrete and materialized, while others are more abstract conceptions, though not necessarily less influential (separation of powers, parliamentary

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[1]   www.ideasfrom.eu,   www.socialinnovationacademy.eu,   www.socialinnovationchallenge.ca, www.innovationforsocialchange.org and www.wethinq.com

democracy). An important factor in this selection process was the *impact* of the innovation in question and it's direct or indirect effect on the well-being of people. It should be noted that every selection is debatable and open for discussion and improvement.

After this collection of major social innovations, I tried to define the most important working mechanisms behind every social innovation. The working mechanism behind the 'Trias Politica' is "separating". The working mechanism behind the metric system is 'standardizing". Some social innovations embody various, sometimes even contradictory mechanisms. The basic pattern of the internet is "connecting", but the internet leads nowadays also to new forms of "isolating" or "separating" (bubbles). The underlying mechanism behind human rights is "equalizing" and "guaranteeing". In the end, the 34 most important patterns or working mechanisms are presented.

Table 1: *Patterns in Social Innovation*

	Pattern	**Explanation**	**Examples**
1	Allocate	Allocate, formalize, assign	Case Law, Intellectual property, Patent, Adoption, Heritage
2	Bundle	Bundle, combine, unite	Gild, Union, Carpooling, Alcoholics Anonymous, Energy Cooperations, Greenpeace, Limited Company
3	Celebrate	Celebrate, commemorate	Christmas, Eastern, Eid al-Fitr, Hindu Festival of Lights, Independence Day
4	Choose	Choose, select, vote	Suffrage, free market
5	Circulate	Circulate, ensuring sustainability	Circular economy, renewable energy
6	Collect	Collect, compile, gather	Encyclopaedia, Wikipedia, Dictionary, Database, Library
7	Communicate	Communicate, systems, tools	Writing systems, Newspaper, Mediation, Braille, Printing, Smartphone, Weblog
8	Compete	Compete, rival	Free market, Olympic Games, Nobel Prize, sport
9	Connect	Connect, bringing together, partnering, linking	Internet, Science, United Nations, Marriage, Bridge, Cafe, Amber Alert
10	Control	Control, observe, monitor, investigate, audit	Parliamentary control, Street Camera, Panopticum, Investigative Journalism
11	Co-operate	Co-operate, collaborate	Round Tables, Triple Helix, Polder
12	Crowdsource	Crowdsource, crowdfunding	AVAAZ, Kickstarter
13	Equalize	Ensure an equal basis, equal opportunities, equal rights	Human Rights, Feminism, Abolitionism, Suffrage, European Currency
14	Exchange	Exchange, swap, barter	Trade, Fairtrade, Money
15	Experiment	Experiment, pilot, try-out	Laboratorium, Testlab, Social Lab
16	Give	Give, grant, donate	Philanthropy, Informal Care, Volunteer Work, Development Cooperation, Oxfam
17	Grow	Grow, learn, cultivate, develop	Agriculture, Education, School, MOOC, TED-Talk

| 18	Insure	Insure, ensure, secure	Pension, unemployment benefits
19	Open	Open up, making transparent	Open source software, open data, Linux
20	Preserve	Preserve, conserve	Museum, DNA bank, Food Conservation, Recycle
21	Price	Pricing, financial stimulation	Taxes, Excise Duties, Grants
22	Protect	Protect, safeguard, shield, shelter	Army, Police, Neighborhood Watch, Prison, Asylum, Birth Control, Vaccinate, WWF
23	Purify	Purify, clean, cleanse	Sewerage, Toothbrush, Soap, Meditation, Rituals,
24	Recombine	Recombine, new combinations	Care farm, Speed Pedelecs
25	Recover	Recover, remedy, repair	Hospital, Therapy, Glasses, Repair Shops
26	Regulate	Regulate, settle, modulate, arrange	Traffic lights, Criminal Law, Administrative Law
27	Represent	Representing, to act for, agency, variation, presenting in a new manner	Parliament, Democracy, Citizen Panel, Citizen Jury, Theatre, Literature, Map, Embassy
28	Secure	Secure, basic norms, basic rights, fixate	Constitution, Legislation, Human Rights, Animal Rights, Minimum Wage, Safety Belt, Freedom of Speech, Basic Income
29	Separate	Separate, split up, divide, analyse	Trias Politica, Separation of Powers, Separation of Church and State, Science
30	Share	Share, use together	Youtube, Peerby
31	Shortcutting	Desintermediation, cut out the middleman	Referendum, Farm to table, Driverless transport
32	Simplify	Simplify, making it easy	Infotainment, Money, E-health
33	Standardize	Standardize, normalize, making uniform	Alphabet, Zero, Numerical System, ISO-norms, Calendar
34	Stimulate	Stimulate, encourage, trigger	Innovation Subsidy, Street newspaper, Microfinance, Keynesian economy

5   Reflections

A few remarks should be made about this collection of working mechanisms. First about the novelty-criterion: In everyday speech innovation is about finding new solutions for existing problems. Most western countries now do have some form of national health service, but 70 years ago it seemed a utopian idea. Women's suffrage was a social innovation in the beginning of the 20th century. Human Rights were 250 years ago considered as a novel idea and although they have since 1948 been declared as 'universal', for quite some people they nowadays still considered as far away or even utopian. The invention of writing was a ground-breaking social innovation that still has its effects today in Twitter-times. Since we are interested in the patterns behind social innovation, we'll consider all these kind of developments as social innovations. A second remark is about unexpected links. At first sight the various examples of social innovations in one category have almost nothing to do with each other. The mechanism 'Choose' is visible in such various examples as 'free market' and 'suffrage'. The act of representing is not only visible in 'parliamentary

democracy', but also in 'theatre', or in 'maps'. We are used to categorizing in themes and subjects and not in underlying working mechanisms. That makes this classification so special and interesting. It helps to watch social reality with another lens.

That means that this list is not a classification in a strict sense; classes are not mutually exclusive. In one example (e.g. AVAAZ) it is possible to discern various patterns, as connect, crowdsource, cooperate, protect, represent etc. Therefore, it is better to consider these transformations as 'sensitizing concepts'; showing a direction of thinking rather than classifying the existing ideas in a strict sense. Every transformation may be interpreted as an action possibility i.e. something that can be done with an object or an idea. (Latour, 1983)

This list is a first attempt to define patterns and working mechanisms in the realm of social innovation. In this collection I identified 34 mechanisms. It is obvious that this list of social innovations and underlying mechanisms is not exhaustive; it certainly is possible to find other recurring patterns. But all together the above-mentioned mechanisms seem to cover most of the important social innovations that shaped our societies. As stated before this list is open for discussion and improvement.

There are certainly similarities between the 34 mechanisms. The mechanisms 'communicate', 'connect', 'cooperate' and 'bundle' are members of the same family. That is also the case for mechanisms like 'regulate', 'standardize', 'protect' and 'control'. In clusters, there appear to be just four big driving forces that are influential in creating social reality. If one looks from a certain distance, one can discern four basic mechanisms that include most of the found patterns: Secure, Divide, Connect and Evolve.
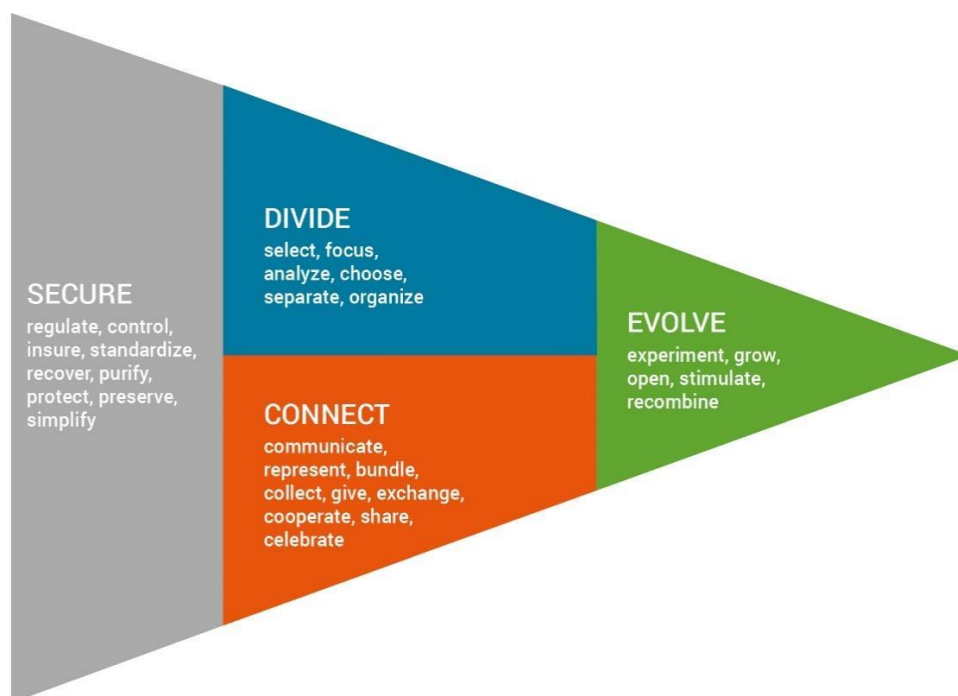
Fig 2: *Main Patterns in Social Innovation*

This way of thinking can open new perspectives, based upon proven mechanisms and recurring patterns. An indicative translation to Paris Climate Goals leads to the following possibilities.

Table 2: *Mechanisms to Achieve Paris Climate Goals*

	Pattern	Examples
2	Bundle	Local Energy Cooperations, Bundling experiences
3	Celebrate	Earth Day, celebrate success, local steps
4	Choose	National Referendum on Top 5 Actions
5	Circulate	Circular economy, renewable energy
6	Collect	Best Practices
7	Communicate	Tailormade communication to practitioners, scientific experts and citizens
8	Compete	Sustainability competitions, Prizes
9	Connect	Connect specialists, invest in connectors and key players, connect large groups via internet and social media
10	Control	Parliamentary control, Investigative Journalism, Armchair Auditing, Apps on measuring Air Quality
11	Co-operate	Round Tables, Triple Helix, Polder
12	Crowdsource	Wisdom of the Crowds, Connecting Minds, Crowdfunding Pilots
13	Equalize	Environmental Rights, Judicial decisions, Urgenda Case
14	Exchange	Fairtrade, Sustainability as Pillar in new WTO framework
15	Experiment	Laboratorium, Testlab, Social Lab, Pilots, Action Research
16	Give	Philanthropy, Volunteer Work, new ways of civil commitment.
17	Grow	Sustainable Agriculture, Education
19	Open	Open data, open science, open government
20	Preserve	DNA bank, Biodiversity, Conservation policy
21	Price	Carbon Tax
24	Recombine	Care farms
25	Recover	Landscape Restoration, Recycle
26	Regulate	Environmental Law, legal rights
27	Represent	Parliament, Democracy, Citizen Panel, Citizen Jury
30	Share	Peerby
31	Shortcutting	Farm to table
33	Standardize	Sustainable buildings
34	Stimulate	Innovation Subsidy

6   Conclusion

What's the use, what's the scientific interest, what's the social impact of this search for mechanisms, one might ask. Why should we bother about mechanisms behind social innovations? The answer is twofold. First, these mechanisms can be used in an instrumental way, enriching future social innovations. It can be used as a checklist, to scan in the case of developing new social innovations. When thinking about measures to combat climate change or migration policy, it seems wise to keep these mechanisms in the mind and to investigate if one can recreate these measurements in such a way that also other patterns are touched or activated. The more mechanisms one can combine in a certain social innovation, the more impact this

innovation might have on society. If you are a scientist or a civil servant or working in a social company or an NGO, and you are faced with a complicated problem, you can be inspired by these 34 principles. They can be helpful in creating new social inventions and shaping the future world. New methods for advancing social innovation are relevant in every sector but they are likely to offer most in fields where problems are intensifying (from diversity and conflict, to climate change and mental illness), in fields where existing models are failing or stagnant (from traditional electoral democracy to criminal justice), and in fields where new possibilities (such as mobile technologies and open source methods) are not being adequately exploited (Mulgan, *et al.* 2007). The above-mentioned mechanisms can thus be used "up-front" i.e. generate new possibilities of innovation. Like the TRIZ principles these mechanisms can be regarded as stepping stones or as a creativity technique devised especially for social innovations.

In a more reflective sense this collection seems even more interesting. These appear to be the ground tones of our time. Although we usually perceive the world as kaleidoscopic and manifold, with millions of phenomena and myriads of events, there seem to be some 30 to 40 mechanisms underlying almost all social innovations. And if you cluster them, there appear to be just four big driving forces that are influential in creating social reality. The mechanisms 'communicate', 'connect', 'cooperate' and 'bundle' are quite similar. That is also the case for mechanisms like 'regulate', 'standardize', 'protect' and 'control'. If one looks from a certain distance, one can discern four basic mechanisms that include most of the found patterns: Secure, Divide, Connect and Evolve.

What does this tell us about the world we live in? Is it possible to reconstruct the patterns in the world some 2.000 year ago? Which patterns will be dominant in the future, in the year 2050? Which mechanisms will become stronger in the forthcoming years, which mechanisms are under pressure and which ones will slowly fade away? One can argue that in the last centuries we've put too much emphasis on 'Divide' and now we should invest more to 'Connect'. We are not accustomed to thinking about the world in such a way, but in the light of the current crises – climate, population, inequality, poverty – time is running short and the stakes are high. What are the big social challenges of our current time and on which mechanisms should we put our efforts, our money, our hope and our dreams?

7   Publisher's Note

How to Cite

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