YOUTH AS DRIVER OF VALUE INNOVATION WITHIN CIVIC CHANGE: COMPETENCES FOR MASTERING THE CRISIS

Gerald Steiner

Institute of Systems Sciences, Innovation and Sustainability Research
University of Graz,
Merangasse 18, A-8010 Graz, Austria
e-mail: gerald.steiner@uni-graz.at

Abstract

This paper investigates how citizens and especially how youth can become self-responsible problem-solvers and troubleshooters based on their inherent affectedness and innovativeness. This calls for a society that focuses on the collaborative capabilities and creativity of all its members, instead of solely relying on governmental action, management, or/and science as provider of potential remedies to civil problems (with often unexpected side-effects). Such kind of civil change processes need to be based on a broad system understanding and strong values. Additionally, this needs to be accompanied by necessary changes within governmental, political, and management policies in order to provide a collaboration climate that is promising for such endeavor by providing supportive measures including educational means to make citizens such as youth as one specific stakeholder group well adjusted to cope with the generation of value innovation on an entrepreneurial basis. Within this exploratory study a causal-loop diagram was developed to point out the dynamic interaction within this social-economic system.

Keywords: Civic entrepreneurs; value innovation; competence framework; causal-loop diagram.

MLADI KOT NOSILCI PRENAVLJANJA VREDNOT ZNOTRAJ DRŽAVLJANSKEGA SPREMINJANJA: SPOSOBNOSTI ZA OBVLADOVANJE KRIZE

Povzetek

Prispevek raziskuje, kako zmorejo občani in zlasti mladi postati sebi odgovorni reševalci problemov in odpravljavci težav, ker so po naravi inovativni in zagnani. Zato bi se družba morala osredotočiti na sposobnost za sodelovanje in ustvarjalnost vseh svojih članov, namesto da se zgolj naslanja na državne dejavnosti, menedžerje in znanstvenike, ki bi naj zagotovili možna zdravila za probleme družbe (s pogosto nepričakovanimi stranskimi učinki). Tovrstni procesi družbenega spreminjanja na širokem razumevanje sistemskega obnašanja in trdnih vrednotah. Poleg tega jih morajo spremljati nujne spremembe prakse oblasti, politikov in menedžerjev, zato da bi zagotovili obetavno ozračje sodelovanja, ki podpira take napore z ukrepi, ki vključujejo vzgojno-izobraževalna dejanja, s pomočjo katerih bi občani, npr. mladi, postali odgovorna skupina deležnikov, ki je dobro usposobljena, da se loti ustvarjanja vrednosti podjetniško. V okviru te raziskave smo razvili diagram vzrokov in posledic, ki izpostavlja dinamične medsebojne vplive znotraj družbeno-ekonomskega sistema.

1 Introduction

Society has simultaneously become the biggest source of wellbeing and the biggest source of man-made problems. For solving those problems there can be identified two extreme positions of a continuum of possibilities: (1) Society is waiting for governmental, political, and management action as more or less "one-sided top-down remedy" (this is actually a common pattern of behavior that seems to characterize most societies). (2) The civic problems are becoming the corner stone of a relatively new policy that is based on entrepreneurial value innovation by society's individuals and groups, also in collaboration with companies and science, in order to enable civil change processes based on self-responsibility of the concerned civic stakeholders (societies are lacking entrepreneurial spirit with respect to the broad range of its members; if available, entrepreneurial spirit is usually limited to some outstanding individuals). This paper has two major objectives, firstly, to focus on this second strategy by asking how youth as a core stakeholder-group of society can become a driver of civic change, and secondly, to take into account the implications of such strategy by accordingly relating such a strategy to the needed mix of competences in order to be "fit for the future". Concerned members of society such as youth possibly have the capability to better understand

civic problems (social, economic, and environmental issues) than politicians and managers at remote places and might have a high potential to find the remedy for society's problems themselves by generating value innovations as solutions to the "pain" of such problems. Consequently, the focal point of such strategy is to develop policies that enable the identification, the development, and the application of society's innovation potential. Questions to be asked in this context are: (a) How to deal with the future challenges of society and how to consider civic problems as opportunity spaces instead of merely as burden? (b) What competences are needed in order to become a civic entrepreneur (=competence framework)? (c) What are the peculiarities of youth to become civic entrepreneurs? (d) How to establish collaborations and networks among civic entrepreneurs and between civic entrepreneurs and organizational sources of innovation? (e) What are the implications for policies of governmental and other public institutions? This paper focuses mainly on the first three questions and is build on a conceptual model provided by a causal-loop-diagram (CLD) and a related systemic competence model of collaboration (SCMC).

1 Why previous thinking paradigms and top-down policies of politics and management are not enough to solve the present and future challenges of society

Mulej et al. (2010) already pointed out, "no crisis can be solved with mentality that has caused them", and indeed it seems to be a matter of fact that influential persons are mostly educated as narrow specialists than in systemic thinking and systemic behavior, leading to one-sidedness of governmental policies. With regard to the origin of the crisis, Schwaninger & Groesser (2010) state that the crisis was caused by errors that were caused by wrong actions and those were caused by wrong thinking respectively by the (bad) quality of the mental models of the agents, as expressed by the Conant-Ashby-theorem (Conant & Ashby, 1970). Consequently, a complex issues such as what Mulej calls the 2008- crisis cannot be explained by applying a mono-causal linear thinking approach and solved with competences that might had been successful in the past. The future challenges society has to face, including crises in its extreme, call for systems thinking as replacement of obsolete thinking paradigms and, more generally, for an appropriate set of competences to handle the complex challenges of today and tomorrow.

Figure 1 shows the most common strategy of previous patterns of behavior of governmental institutions – either on the local, regional, national, or international level – for dealing with dynamic situations such as characterized by the 2008- crisis. It shows that top-down policies are lacking knowledge about what the "core problems" of society and the accompanying crisis are all about. Instead, measures such as subsidies, regulations, and penalties are undertaken to combat the symptoms of the crisis. Although this might lead to a short-term betterment, the concerned agents are not aware about the underlying reasons of the crisis. This temporal positive effect can instead be harmful for the further development of the overall system, since laggardness of the governmental and civic agents, but also of all other members of society may occur, which can hamper the innovation potential for counteracting measures and the need for changing patterns of behavior. Meanwhile, the overlooked causes of the problems aggravate and lead to an even more unsustainable development of the overall system, not only expressed in decreased effectiveness and efficiency, but as diminishing level of happiness among stakeholders at various levels of society, what might be an even stronger indicator.

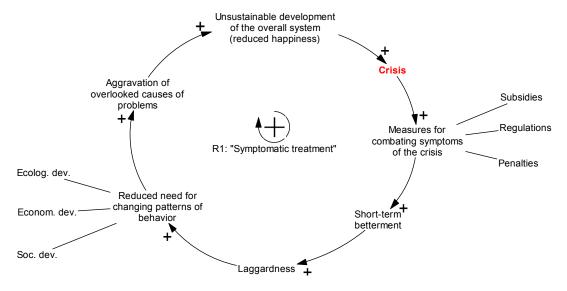


Figure 1: Combating symptoms of the crisis

Since no real counteractions have been taken in the system described above (what is probably characterizing the behavior of society in large today), this loop reinforces itself and navigates towards an even more disastrous crisis than experienced in 2008 and the following years.

2 How to deal with the future challenges of society?

The following figure points out how holistically dealing with the crisis and the future challenges of society in general can be the basis for a development strategy of society that focuses on its self-healing capacities instead of waiting for the outstanding "healer", either understood as politicians, managers, other leaders, or scientists. Furthermore, this strategy is about rethinking and redefining the role of government and management in changing their role into providing a supportive environment for enabling civic agents to generate value innovations to cure the problems of society in collaboration with other stakeholders of society (including companies and science).

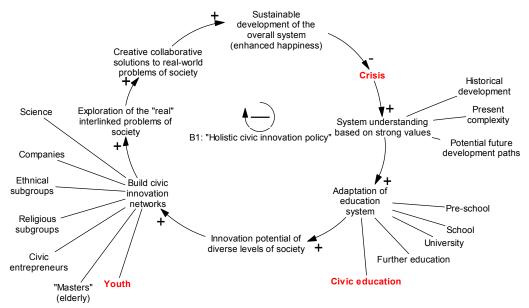


Figure 2: Holistically dealing with the crisis

As pointed out in figure 2, is system understanding based on strong values the needed basis for such endogenous civic change processes. This requires an adaptation of the previous education system, not only including pre-school, school, university and further education, but especially civic education, since the civic innovator will not necessarily have experienced a high school or university education. The crucial question is to provide civic agents from various levels of society with the needed competences to become an innovator for their problems themselves and as collaborating entities, such as civic innovation networks. Here the role of the youth is outstanding, since they are linking previous, present, and future developments and the various ages and other specifics of society. Hence, creative forms of collaboration can be the basis for exploring and solving the real interlinked problems of society. This not only increases the likelihood of a more sustainable development of the overall system, but might also lead to higher degrees of happiness among all members of society. Therefore, systems thinking and changed values and attitudes supported by appropriate forms of education might be a suitable path out of the crisis.

3 What competences are needed for civic entrepreneurs as part of civic innovation networks?

Most common classification schemes may consist of three or four dimensions. Exemplarily, a three-dimensional scheme can be composed of professional, methodological, and social competences (Faix & Laier, 1996), and a four-dimensional scheme may in addition to those three dimensions have personal competence as a fourth category (Heyse & Erpenbeck, 2004; Kauffeld & Grote, 2000: 30-37; Kauffeld & Grote & Frieling, 2000: 213, 217). Another example of an applied three-dimensional concept is the UNIDO competence typology that consists of managerial, generic, and technical/functional competences (UNIDO, 2002).

The need for collaborative attempts for integrating various disciplines but also for joint collaborative processes of various stakeholders of organizations and of society becomes obvious in many theoretical approaches with practical relevance such as concepts like open innovation and transdisciplinary problem solving (Chesbrough, 2003;

Chesbrough, 2006; Scholz & Tietje, 2002), social innovation (Goldsmith, 2010; Goldsmith & Eggers, 2004), open creativity (Steiner, 2009, 2011), society-, user-, customer-, or stakeholder-driven innovation (such as von Hippel, 2002; von Hippel, 2005; Tuomi, 2002; Vigier, 2007), and living labs (European Commission, 2010). Nevertheless, not much has been said about the specific competences needed so far to accomplish these highly demanding challenges of collaborative problem solving and how policies of higher and further education need to be designed accordingly.

Complex problem solving processes in real-world settings such as the generation of innovation usually depend mostly on a collaborative effort, what is more than the agglomeration of individual performances. Hence, the question of how to deal with competences within a complex system needs to focus

- primarily on the collaborative system peculiarities and
- secondary on the development of the competences of individuals under consideration of the improvement of the capabilities of the whole system.

Within this conceptual framework it is stated that complex problem solving such as the generation of innovation or innovation-based entrepreneurial processes require the dynamic interplay of process- and system competence, personal competence, social competence, and domain-specific competence. It needs to be stressed that usually one competence cannot be substituted by one off he other; substitution might be only marginally a successful strategy. Therefore, the development of successful action-competence depends on the synergetic consideration of all four dimension mentioned (see figure 3).

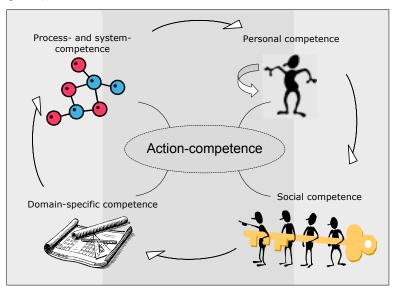


Figure 3: Systemic competence model of collaboration (SCMC) (based on Steiner, 2011: 92-99)

This categorization is different to other classification schemes on competences since it stresses the necessity to have process- and system competences as a kind of meta-competence within every complex problem solving process as an own competence category. Furthermore, this classification is distinctive to others since it has two more types of meta competences that are personal competence as individual reflection capability and social competence as a prerequisite to collaborate in groups or networks. Different to most other categorizations there is no single category on methodological competences, since it is argued that these cannot be separated as a single class, but instead methodological competences are needed for process- and system competence, for personal competence, and social competence as well.

The four competence dimensions have to be considered as interacting holistic system that depends on the problem-related requirements and that characterizes the competence profile of the collaborative entity:

- 1. *Domain-specific competence:* The initial problem is related to certain domain-specific knowledge, skills, and methods (e.g. the domain of transport systems when working on mobility innovations);
- 2. Process- and system-competence: To be an "expert in the process" and in the "analysis and design of systems" (holistic system thinking) is a meta-competence that does not depend on specific contents, but is a prerequisite for understanding complex processes and systems. Hence, the design of problem solving processes and the decision on the choice of methods to applied is crucial (e.g. project management, creativity techniques, problem-analysis and scenario methods);

3. Social competence: The collaborative nature of most complex problem solving processes becomes obvious in the various communication and interaction processes among disciplines but also between organizations and stakeholder groups (Steiner, 2008). Here, team-, integration-, reflection-, and conflict-specific abilities are required (similar to Heyse & Erpenbeck, 2004: 287 f.) in order to enable appreciative collaborative processes such as within collaborative creative problem solving. Therefore, the establishment of a joint system of objectives is essential.

Personal competence: Collaborative creative problem solving processes require that the involved individuals are capable to reflect on themselves and their value systems and to act in a self-responsible, goal- and future-oriented manner. Hence, personal competence enables the development of the own personality and is a prerequisite for social competence.

Concluding Remarks

This paper investigated how value innovation generated by society itself can become a promising remedy for civic change processes that are able to handle the complex challenges of society such as a crisis. Therefore, the question of the appropriate competences was raised. For further investigations the following issues have crucial importance: How to establish collaborations and networks among civic entrepreneurs and between civic entrepreneurs and organizational sources of innovation? What are the implications for policies of governmental and other public institutions?

References

- 1. Chesbrough, H.W. (2003): The era of open innovation. MIT Sloan Management Review, 44/3: 35-41.
- 2. Chesbrough, H.W. (2006): Open innovation: The new imperative for creating and profiting from technology. Boston: Harvard Business School Press.
- 3. Conant, R., Ashby, W.R. (1970): Every Good Regulator of a System Must Be a Model of the System. International Journal of Systems Science 1(2), pp. 89-97. Also reprinted in Conant, R. (1981): Mechanisms of Intelligence: Ashby's Writings on Cybernetics. Seaside, CA: Intersystems Publications, pp. 205-214.
- 4. European Commission (2010): Living labs for user-driven open innovation. URL http://ec.europa.eu/information society/activities/livinglabs/index en.htm (27.12.2010).
- 5. Faix, W.G. & Laier, A. (1996): Soziale Kompetenz: Wettbewerbsfaktor der Zukunft. Wiesbaden: Gabler.
- 6. Goldsmith, S. (2010): The power of social innovation. How civic entrepreneurs ignite community networks for good. San Francisco: Jossey-Bass.
- 7. Goldsmith, S., Eggers, B. (2004): Governing by network: The new shape of the public sector. Washington, D.C.: Brookings Institution Press.
- 8. Heyse, V. & Erpenbeck, J. (2004): Kompetenztraining: 64 Informations- und Trainingsprogramme. Stuttgart: Schäffer-Poeschel.
- 9. Kauffeld, S. & Grote, S. (2000): Kompetenzdiagnose mit dem Kasseler-Kompetenz-Raster. Personalführung, 1: pp. 30-37.
- 10. Kauffeld, S./Grote, S./Frieling, E. (2000): Diagnose der beruflichen Handlungskompetenz bei der Bewältigung von Optimierungsaufgaben in Gruppen. Zeitschrift für Arbeitswissenschaft, 2: pp. 211-219.
- 11. Mulej, M., Potocan, V., Zenko, Z., Strukelj, T., Sarotar Zizek, S., Hrast, A. (2010): The global 2008- crisis and innovation of managers' attributes. In: Trappl, R. (ed.): Cybernetics and systems. Vienna: Austrian Society for Cybernetic Studies.
- 12. Scholz, R., Tietje, O. (2002): Embedded case study methods. Integrating quantitative and qualitative knowledge. London, New Dehli: Sage.
- 13. Steiner, G. (2008): Supporting Sustainable Innovation through Stakeholder Management: a systems view. International Journal of Innovation and Learning 5(6), pp. 595-616.
- 14. Steiner, G. (2009): The concept of open creativity: Collaborative creative problem solving for innovation Generation a systems approach. Journal of Business and Management 15(1), pp. 5-34.
- 15. Steiner, G. (2011): Das Planetenmodell der kollaborativen Kreativität. Systemisch-kreatives Problemlösen für komplexe Herausforderungen. Wiesbaden: Gabler Research (published in fall 2010).
- 16. Tuomi, I. (2002): Networks of innovation: Change and meaning in the age of the internet. Oxford: Oxford University Press.
- 17. UNIDO (2002): UNIDO Competences. Part 1. Vienna: United Nations Industrial Development Organization, Human Resource Management Branch.

- 18. Vigier, P. (2007): Towards a citizen-driven innovation system in Europe: A governance approach for a European innovation agenda. Innovation: The European Journal of Social Science Research, 20/3: 191 202.
- 19. von Hippel, E. (2002): Horizontal innovation networks by and for users. MIT Sloan School of Management Working Paper No. 4366-02.
- 20. von Hippel, E. (2005): Democratizing innovation. Cambridge, Massachusetts: The MIT Press.