

Learning society and sustainable development: adult education research that expands the territories

Learning society e sviluppo sostenibile: ricerca sull'educazione degli adulti e ampliamento delle visioni territoriali

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Abstract

The concept of learning society has adequate explanatory power for problem situations and the contradictions that need to be solved by collective wisdom and practices, and the unfulfilled balance between development and sustainability is one of the newly emerging issue that the concept of learning society can be applied to. The whole society needs to *learn* how to fit in the new way of living called *sustainable development* and to re-stabilize the new social orders. In this article, I argue the nature of the sustainability as of learning and unlearning by focusing on the systems learning perspective that can be utilized to resolve the contradictory issue of “sustainable” + “development” in double-binding contexts. I will firstly explain the nature of sustainable development to be approached not as material sustainability but rather human cultural mindset changes, to which learning and education need to actively contribute as a key part. Secondly, I will explain how the notion of a learning society, and the dimension of collective/systemic learning are able to be applied to this context as a game changer.

Keywords: learning society; sustainable development; adult education; industry 4.0.

Abstract

La categoria di *learning society* ha un adeguato potere esplicativo per tutte quelle situazioni e contraddizioni che possono e devono essere risolte per mezzo della saggezza collettiva, invocando il pieno equilibrio tra sviluppo e sostenibilità. L'intera società dovrebbe *apprendere ad imparare* al fine di ristabilire l'ordine sociale. In questo articolo, viene argomentato che la sostenibilità possa essere considerata come un nuovo apprendimento. Sarà spiegata, in primo luogo, la natura dello sviluppo sostenibile da affrontare attraverso i cambiamenti mentali e culturali dell'uomo, saranno considerati l'apprendimento e l'istruzione come parti attive e fondamentali per raggiungere tali cambiamenti. In secondo luogo, sarà sviluppata la nozione di apprendimento come apprendimento collettivo/sistemico, punto di svolta, per il raggiungimento di uno sviluppo sostenibile.

Parole chiave: learning society; sviluppo sostenibile; educazione degli adulti; industria 4.0.

1. Introduction

The field of adult education research has been and will continue to expand. In this process, one of the notable changes is that the units of research extend from individuals to collectives. Educational researches have traditionally studied an individual's learning and change as a unit of research. However, social change is difficult to account for in individual units, and most of the major changes, especially those involving social changes have been made through collective learning and changes beyond the individual level. The research fields that have grown in the area of adult education, such as organizational learning, community learning, expansive learning or team learning, started from this interest.

I believe that adult education research has the power to explain important social changes and solve social problems. Much of that power is believed to be possible through a leading educational research on explaining collective learning phenomena that systemic/social learning systems have created. The terrain of learning society is one of them.

Research on the learning society has not yet been established as an empirical study. A few philosophical and conceptual analysis were experimented; few studies had scientific foundation in research designs and data analyses. It is partly because the researches on learning society are actually larger in size and require more systems approaches than any organizational or collective research field that has appeared so far. Nonetheless, I believe that learning society can be a key area of important adult learning research. This is because the conceptual structure and principle are already embodied in concrete reality, and it is difficult to find a more suitable concept to understand such phenomena.

In *Creating a Learning Society*, Joseph Stiglitz (Stiglitz & Greenwald, 2014) says that learning is the criteria characterising the era of modern economic development for recent 200 years, and we are living in a learning society, in which human learning is a key activity to settle social problems. Most of the elements that characterise the advancement of a society, such as industrialization, democracy, human rights, or cultural pluralism are all consequences of active human learning.

Learning society has emerged as a form of a social functionality that promotes in maximum scale human competencies and reflexive wisdom to cope with incessant social problems and develop necessary conditions (Edwards, 1997; Hutchins, 1968; Welton, 2005). Especially the *systemic learning* in a learning society is useful to figure out the way a society actively *learns* how to resolve contradictions and how to re-adjust to what the change has resulted in (Kuhn, 2006; Lundvall & Johnson, 1994; Stiglitz & Greenwald, 2014).

The concept of learning society, by the way, is believed to have adequate explanatory power for problem situations and the contradictions that need to be solved by collective wisdom and practices. Among many, the unfulfilled balance between development and sustainability is one of the newly emerging issue. A rapidly developing society faces unprecedented social dilemmas that had never been raised before. Rapid economic development, for example, creates a corresponding cultural and social problem: economic prosperity brings about disparities between material platform and the way of thinking and living on it. The whole society needs to *learn* how to fit in the new changes and to re-stabilize social orders.

The sustainability is one of the most problematic issues to challenge, because it is not a kind of human value that can be learned with adding a few more new knowledge or skills upon one's previous experiences, but rather a totally new dimension of experience that human, especially in modern era, has never been required to go through, with no ready-

made strategies. It is the matter of *un-learning* of what they had learned in the era of modern developmentalism, and also *re-learning* of what the new tasks has brought into the era of eco-friendly sustainable social structure.

In this article, I will argue the nature of the sustainability as of learning and unlearning by focusing on the systems learning perspective that can be utilized to resolve the contradictory issue of *sustainable + development* in double-binding contexts. I will firstly explain the nature of sustainable development as a double-bind that needs to be approached not as material sustainability but rather human cultural mindset changes, to which learning and education need to contribute as a key part. Secondly, I will explain how the notion of a learning society, and the dimension of collective/systemic learning are able to be applied to this context as a game changer.

2. Political economy of developmentalism: a problem raised

According to UN, *sustainable development* is development that makes balance between economic development, stability and integration of the society, and environmental preservation based on sustainability, and sustainability is to meet the needs of the present without compromising the ability of future generations by wasting economic, social, and environmental resource to meet their own needs (WCED, 1987).

To begin with, I should say that the concepts of sustainability and development are a sort of self-contradictory double-bind: different directions and value systems they have originated from. Sustainability is more than physical environmental issues dealing with questions of fossil fuel, wastes, or forest destructions; rather it is about human value system, with regard to how to live in this world of limited resources. It is not against modern industrialism *per se* but rather challenging the narrow tunnel vision for economic development at the expense of everything else (Caradonna, 2014). The key resides in a way human minds understand life, living with or living in the globe, or a way of understanding the notion of development. It goes beyond managing material world. It rather challenges a way of transforming human mindset in collective ways to re-learn how to live. Some argue that “the core issue was cultural and psychological, rather than technological. It requires a transformation in how humans play their role and perception as a part of the whole ecosystem” (Regenesis Group, 2016, p. XIV).

The sustainability begins with a critique on developmentalism, which is a collective identity of the industrialized way of production, being distinguished from pre-industrial stage. On the one hand, developmentalism is a *fetishism* that capitalist production system has made, in which the desire for incessant *change* is strongly installed as an ideology. GDP needs to grow constantly, living standards need to be upgraded, personal consumption level wants to be a way up constantly. In this perspective, developmentalism was a fetishism for change, especially in material way.

The history of industrialization for the last 200 years has fetishised the value of development, in which the impulse of change prevailed stability. The information society accelerated the cycle of material production and consumption ever faster. The system came to be far-from-equilibrium, that is, the capitalist system can be stable only when it expands to accumulate more capital (Beck, 1992).

The *change-driven society* – I would say it is same as the risk society that Beck implied – hastens the speed of mass production and mass consumption that exploit further ecosystem.

It, then, divides people into winners and losers: winners are those who successfully ride on the train of the change, and losers who are reluctant to compliant to it. Social change became fetishised, to make people perceive that the world is irreversibly changing within the swirl of agnosticism in that the concept of change itself was alienated, and believe that the role in this consistent swirl is to merely adapt to the changes. With adopting Paulo Freire's note in the *Pedagogy of Freedom*, it is a kind of fatalism. It is a fatalism that we are led to believe a situation as an "end-of-the-century inevitability" (Freire, 1998, p. 27). Only one road, and make people "adapt to what is inevitable, to what cannot be changed" (ibidem). In this context, human skills and competences are half-blinded. They are geared to speed up technological changes rather than reflectively speculating the problems for structural changes. It is a self-destructive *fetishism* that the whole production system looks like something inevitable, so that human cannot control but obey. It is, of course, not true since all changes have been made by human beings who can also remedy the whole streams for sustainability.

To repeat, sustainability is a matter of social psychology and political economy of the capitalist commodity production, far beyond environmental issues (Park, Conca, & Finger, 2008). In this process, self-destructive fetishism is reproduced by two intermeshing gears: the *selfish production system* of the global capitalism that continues by accelerating mass consumption, and the *unequal, stratified reproduction system of a society* that provides exclusive status to those who are self-flaunting to the top of the mass consumption. Here the reason I put selfish to the production system is that by nature the objective of the capitalist production system is to sustain itself – nothing else – to produce surplus capital (Brewer, 1984). The selfish production system is interlinked with self-flaunting consumption system mediated by stratified social hierarchy that intensifies the distorted human desire. Under the circumstances, production system drives up the speed of the market and consumption; People become passive followers, and mass consumption came to be a virtue. The cult of change is implied into all commodities and services, in that people believe we didn't have any choice but follow the rule of the change. It creates a *politics of change* – predetermined and technological – that the illusionary image dominates major decision-making processes; it advocates people's choices for changes per se.

3. Self-contradictory double-bind and the way out

The only way out from this self-contradiction is to re-learn the way we understand the purpose of life, social dynamics, politics of changes, and fatalism embedded inside. We should re-define the framework of developmentalism, to be replaced with the notion of *sustainable development*. The adjective of sustainable, however, collides in concepts with the noun development. The way we understand the notion of sustainable development might be harnessed by the way we understand the relationship between sustainability and modern development. The concept of sustainable development is a combination of the concept of sustainable and the notion of development, and the meaning is comprehended into totally different two directions, depending on how the two concepts are interlinked. When the part of *development* is focused, it means to be a passive approach saying that we want to continue current way of development as we have done, so we are going to find the way to make the way a bit more sustainable. On the other hand, when the part of *sustainable* is significantly reconsidered, it implies a thorough turn-over of the attitude, saying that we are going to change our current value of development entirely to fulfill the meaning of sustainability. It asks for an innovation in thought system, which requires comprehensive

re-learning. Assuming that no more sustainability of the global ecology is possible until we give up the current pattern of development framework, human beings have no choice but to take a boldness to critically reflect and transform the given social belief system in order to continue the survival on earth. It is a matter of self-determination, and calls for an active role of human learning and education as critical game changer.

4. Human learning and education: critical game changer

Sustainability issue that we are dealing with in this paper is strongly related to a possibility how human collective learning can change their culture and value system in general. Human knowledge and learning have made human civilization *progressed*. Education and learning, in this context, needs to be perceived from collective sense, for example, history was itself a product of *bildung* (or education), or culture was a collective composition of human learning in general, etc. The way of understanding might look naive or at least stands for *educationalism*, from a perspective of scientific academism that we all are located in and familiar with, but nevertheless it leads to open the other side of the door, which most of educational theorists are hesitating to go through. Educational theorists regard education either as tools at individual level, at the level of classroom, fulfilling the purposes of other social functions; not attempt to understand education as a self-organizing social system that formulates a collective way of human behavior (Qvortrup, 2005). This kind of attitude comes from origin of educational researches, which has been heavily influenced and conditioned by American positivistic and empirical academism, self-contained the activities of teaching learning in a reduced context of psychological process (Lagemann, 2000). From my perspective, human learning and education are critical game changers as a whole, which cannot be reduced to the accumulation of individual learning. Culture or value system itself is learned at societal or community level, which has never fully investigated by educational researchers. Political awareness has enlightened the necessity of democracy in human history, which has been mostly theorized by political or social theorists; massive literate workers made modern industrialism possible, which also was major area for economists. Massive higher education changed the conditions of work and life in a whole society, which was none of the work of higher education researchers. Those are some chosen examples of the consequence of what society has learned collectively, which was far from academic concerns of traditional education researchers.

Some changes are found in some limited documents. The birth of *the schooled society* (Baker, 2014), for example, is a major symbolism that represents how human learning, under the frame of public education system, has been institutionalized to play a key role in establishing industrial production system, civil society, or ordinary social lives with information and communication technologies. Education and learning in this context have been asserted to play a key role in solving complex problems in various domains. Modern industrialism accompanied mass literacy educational revolution brought about epoch-making changes in human civilization. Popular literacy rapidly cultivated political democracy through public schooling (Lankshear, 1993; Mitchell & Weiler, 1991; Youngman, 1985). This schooled society perspective created new way of understanding the lifestyle that people spend their quarter of life living as a full-time student with. Simultaneously, learning and education came to one of the most crucial social policy of governments, and societies invented new connection between school and labor market, which we call it *meritocracy*. The establishment of higher education dramatically changed

the way knowledge is formed and reproduced, in which teaching and researching were interconnected under unified synergic loop.

The schooled platform of learning recently was merged with expanded symbolic stage of lifelong learning, which created new human learning platform called *learning society* (Holford, Jarvis, & Griffin; Jarvis, 2008, 2010). It replaces the previous *schooled society*. Learning society, in this vein, integrates various forms of learning in a whole society as well as throughout the whole lifespan. Human competences now is trained and monitored with this framework.

Learning society is at first the product of lifelong education discourse. The framework of learning society was inspired by Swedish educational reform in the Seventies (Huseñ, 1974) and disseminated widely with the Unesco report *Learning To Be* in 1972 (Faure, 1972) that sparked global educational reform and lifelong education practices. After that, huge amount of studies and researches have continued. From Nineties, in Europe and other developed countries, learning economy was evolved and knowledge came to be increasingly presented as the crucial factor in the development of both society and the economy. Learning economy was a new mechanism to connect knowledge, learning, and innovation in this context. (Glasmeier, 1999; Herzenberg, 1998; Kuhn, 2006; Lundvall & Archibugi, 2001; Lundvall & Johnson, 1994; OECD, 2001). The key element that makes an advanced country different from a developing country is the amount of knowledge and capacity to learn, and the important matter is reinforcing learning.

In a learning economy, it was of paramount concern how to connect innovation and learning (Stiglitz & Greenwald, 2014). According to Stiglitz, social changes are possible through innovation of the whole frame, and the innovation again is augmented, expanded, and realized by learning. In principle, Innovation is not a personal skill or competences that can be taught in a classroom but experimented in a concrete situation, and can be learned by participation informally and implicitly. In any case, learning economy presumes innovation that carries an advancement of learning, or innovative economy always brings about learning society. Both are the two sides of the same coin. In this process, role of government is more focused. Market never puts learning and innovation effective by itself, so government intervention is required; governments can make designs of learning society policies along with the designs of innovative economy (Kuhn, 2006).

Industry 4.0 is an excellent example of learning economy that can possibly provide significant implications to *sustainable development-driven economy*. Two aspects need to be seen here: Industry 4.0 is about smart self-organizing learning system; and it is supposed to be a sustainable production system. Numerous researches support a possibility of Industry 4.0 as future sustainable production system (Bonilla, Silva, Silva, Gonçalves & Sacomano, 2018; Lin, Shyu, & Ding, 2017). It will enable sustainable prosperity through the use of modern technologies to find solutions to the challenges related to energy, resources, environment, and social and economic impacts (Morrar, Arman, & Mousa, 2017, p. 14). Industry 4.0 is supposed to be a smart factory that has different logic and form than ever. Buhr (2015) indicates that Industry 4.0 is about changing the basic principles of production system. Production is becoming more flexible and faster, and it dialogues with consumer so that individual customer wishes can be better fulfilled. The following keywords comes along with the notion of Industry 4.0: resilient factory, ability to learn customer features, intelligent maintenance management, self-organizing adaptive logistics, customer-integrated engineering, sustainability through up-cycling, smart factory architecture. A key point here is that Industry 4.0 is a smart production system that can *learn and adapt* the needs and changes as a self-organizing system. It is supposed to be a

self-learning production system. It can change the production system from blindly massive to smartly adaptive, which can control the amount of production, reduce surplus products and wastes, and can correspond reflexively sustainable way of social consumption.

A crucial point here is that the new industrial standard 4.0 calls for changes in production systems, not only towards being smart and super-connected but also compliant to the goal of sustainable development. Industry 4.0 implies the image of *smart production system* as of the self-adapting *learning* systems that can think and act in decision-making, that eventually adapts the notion of sustainability. It trans-connects the human desire and consumption behavior with the production system, and opens a new way of interlink between them, which is different from old model that *mass production* drives mass consumption via insidious way of advertisement, and inevitable waste of the inventories. What I am pointing out here is that promotion of sustainability is not what a classroom teaching can make of, but to inculcate the system-level changes in both material and cultural aspects. A way of understanding a society (or organization) that learns helps to open new dimension of academic approaches in educational researches.

The sustainability is a matter of way of weaving new social system beyond individuals' practices, and in order to deal with this matter correctly, I cannot but introducing the concept of learning society. Learning society, to me, is a society that continuously keep learning for solving double-bind contradictions – developmentalism and sustainability in this case – that includes learning organization, learning economy, learning cities, learning communities, or learning nations (Han, 2017). It is social learning system that I pay attention to sustain the system (Blackmore, 2010; Snyder & Wenger, 2010). The unit of learning is the collective, and in this sense, a city or a company is a social system that learns how to keep sustainability. A social system learns, as an individual does (Davis, Sumara, & Luce-Kapler, 2015; Engestrom, 2015; Wenger, 2009). It does not just change the institutions, but rather the people inside learn how to communicate and how to be connected each other through the newly evolved principles. It is a total set of social learning *per se*. As human learning of individuals results in the change of brain structure or neurons, so does learning of social systems results in the institutionally changed stability and its ritual conservations. This improvement includes manifested institutional changes that reflects the way collective goals can result in targeted performance. The *institution* is a kind of cultural device creating repetition and stabilization of individual human behaviors. It is not a few lines of laws and regulations, but more inclusive to the holistic and collective learning of the group of people: learning how to re-think, re-live, re-communicate, and re-connect. This is what the notion of a *learning society* is all about.

5. Learning system and collective competences

The main approaches to accomplish learning society recently has been discussed in two dimensions. One is to understand it as a social support system that expands the *supply of individual learning* accessibilities and *educational program* provisions (Longworth, 2006). It is presumed that learning is a task of individual members, so what the society can do is to make societal support system to expand the opportunities of each member to lifelong education, to increase supply of educational provision, to provide flexible recognition system to learning outcomes, and to mobilize the necessary resources. The policies related with learning society promotion have mostly been based on this presupposition (Han & Makino, 2013; Osborne, Kearns, & Yang, 2013; Yang, 2012). This model brings various practical methods forward, such as enhancing the individual's opportunities for lifelong

education and its competence building, expanding the supply of adult education and training programs, especially of public sector programmes, encouraging learners to participate in more nonformal education opportunities operated by schools and universities, developing innovative ways of new supply of education including online learning, and applying recognition, validation, and accreditation programs to informal learning outcomes. It also contains building lifelong learning centers in each city and expanding the public base of adult learning.

Another way to understand the notion of learning society is to regard it from the perspective of *social and collective learning*: making a society learn and self-adaptive organization. It is a new phenomenon that the society as a supra-organization itself is performing collective learning, beyond an aggregate of individual learning, but as a unit of subject of the learning. In this context, social changes are the learning outcome that a city or a society has performed (Han, 2008, 2017; Snyder & Wenger, 2010). Probably it sounds strange that a society can be an agent of learning activities. Peter Jarvis (Jarvis, 2010), in his various articles and books, argues that learning is eventually the activity of individuals, and society cannot be the agent of learning. He says learning is an activity that can be done by *conscious living creature*. Even Paulo Freire says we cannot change the world directly; instead we can change people and the people can change the world. However, from a systems approach, a society as a super-organism can be the agent of learning activities. It is what biological constructionists like Humberto Maturana (Maturana & Varela, 1998) or social systems theorist Niklass Luhman (Luhmann, 1984/1995) insisted. That is, *learning society is a society that learns* (Davis et al., 2015). In the same point of view, a learning organization is a company that learns (Nonaka & Takeuchi, 1995). In this stream, we can expand the frame to the nature of Industry 4.0 as *smartly learning production system* that communicates, collects data, and learns how to manage the needs of consumers in self-organizing manner. Significant numbers of researches have already revealed the domain of societal learning and collective intelligence. In the studies, the unit of learning was supposed to be a community, an organization, or a society (Agyris & Schon, 1996; Engeström, 2001; Lave & Wenger, 1991; Wenger, 2009). Engestrom (2015; 2016), for example, presupposed *a society learns by expanding*, which is a good example of such kinds of theories. Wenger proposed a theory of Community of Practice that is also supposed to learn how to change the structure and network to cope with new challenges. These are the ways a system learns.

6. Contradiction and collective learning: a thought experiment for sustainable development

I wish to discuss more specifically how a learning society can be in operation, though still in a mystery despite its merits. The specific research methodology related with this matter may be also beyond the scope of this article. Nevertheless, it would be beneficial to run thought experiment by combining a few possible theoretical approaches, including systems theory, community of practice, bounded rationality theory, and expansive learning theory, etc. that can create an experimental scenario:

- assumption 1 (Systems Theory): a society consists of individuals; It, however, is more than the sum of the individuals. It is the relationship, not the individual, that constructs the reality of the society. It is a self-referential organization (Luhmann, 1984/1995, 2002);

- assumption 2 (Bounded Rationality): Individuals only has limited rationality to know the society as a system. They can predict or design only a part of the system with imperfect rationality. It is by communication, participation, and experience to reach as much truth of the whole picture (Simon, 1997);
- assumption 3 (Community of Practice): Community is an activity system, either small as a company or large as a nation-state, as the basic unit and context that human collective intelligence is activated to perceive and learn itself (Blackmore, 2010; Wenger, 2009);
- assumption 4 (double-bind in Bateson): Social problems occur with double-bind contradiction that cannot be settled at the same level of collective cognition. To solve the contradiction, it requires to move up the level and meta-observation is required (Bateson, 1972);
- assumption 5 (Expansive Learning): Expansive Learning can be a tool to resolve the contradiction. By expansive learning, an activity system that is engaged in the contradiction expands the scope and relations to resolve it (Engestrom, 2015, 2016).

Let's see how this mutually-interconnected theoretical construction can create a scenario that handles sustainable development problems: first, a society faces a contradiction that conventional methods do not able to handle. The contradiction of modern developmentalism and the new need for sustainability is the case here; Second, government establishes goals and policies that enable SDG at the social level. But between different interest groups (e.g., entrepreneurs, environmental activists, consumers, etc.), this policy creates another point of conflict. Development and sustainability are still a fundamental contradiction; Third, another situation is a contradiction between the system and the individual. The society is itself a self-production system, but individuals have only limited rationality. Individuals who are restricted in partial gains are unable to understand the whole. Participatory and experiential learning to the pro-sustainability movement or policies expand the number of participants with patience and tolerance; Fourth, as small role changes at the individual level are stabilized by mores (or common sense on new eco-friendly philosophy and changes in consumer patterns), the threshold of collective recognition moves little by little toward the goal. The mass production system also responds to the consumer changes, as like indicated at Industry 4.0. The accumulation of social experiences consists of new social institutions. It is the process of social learning; Fifth, the social learning, however, is also a contested terrain. New collective behavior and actions establish new institutions and make contested terrain against the previous conventions. The old and the new coexist and confront each other for a period of time. Now the confrontation changes from individual level to a level of collective intelligences, and each party produces self-referential and self-organizing legitimacy for the value of their choices.

To put it short, the meaning of what society learns is that a society, as a system, constructs a way to counteract any environmental changes, finding common goals to transform, and having a way to customize or stabilize them. In other words, the newly *learned* way of social operation is stabilized enough to maintain for a quite long period of time. As such an individual does, a society customizes the once-learned-adaptation-pattern over time. We call the changes *learning*, and the outcome *institution*. So, in this manner, a learning in societal level is a merged combination of institutionalization and its re-adaptation; It is not a single-loop process, but rather multi-loop and multi-party process.

7. Concluding remark

Of course, this process will not be smooth as silk. It surely calls for inevitably political confrontations on values and benefits. However, you don't have to be disappointed. This process of inevitable conflicts and confrontations can be re-written as a process of collective and democratic learning process rather than a political contestation, so we can experience self-evolution and self-learning through the very existence of social dilemmas and double bindings (We call this process as expansive learning recently). Here, the notion of *emergence* can be introduced to the new trait of social systems acquired by learning a new pattern of adaptation to the double binding. What we call *learning society*, in this sense, is a model society in which the collective learning process is prevalent, so the society is equipped with competency to solve the problems inside by itself through consistent emergent evolution and learning. Mostly, the emergent appearances are represented as a process of institutionalisation in society. In other words, a society creates a new institutionalisation in the process of solving a problem. For instance, we can make new indicators and goals, and systems and policy for pursuing the value of global sustainability. Yet, this process does not end up immediately with a few lines of laws, vision papers, or action plans. One system keeps learning in the process with consistent revision and improvement through the participation of the people. Say, once a system refers to a mechanism for stabilization and perpetuity of chosen human behaviors, the sustainability also should be realized clearly through the institutional evolution consistently.

Many further studies and experiments are required. Still, we educationists do not have enough knowledge and study experience on that type of researches. We are not well-informed in making a society learn through self-organizing way. If symbolising a city as a *giant* collective consisting of individuals, we need to let the giant wake up, walk by oneself, and learn in self-organizing way. Learning society is a learning giant. I am looking forward to see the giant self-sustainably step toward.

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