



Living Cognitive Society: A ‘digital’ World of Views



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ABSTRACT

The current social reality is characterized by all-encompassing change, which disrupts existing social structures at all levels. Yet the approach based on the ontological primacy of stable and often hierarchical structures is still prevalent in theoretical and, most importantly, practical thinking about social systems.

We propose a conceptual framework for thinking about a dynamically changing social system: the Living Cognitive Society. Importantly, we show how it follows from a much broader philosophical framework, guided by the theory of individuation, which emphasizes the importance of relationships and interactive processes in the evolution of a system.

The framework addresses society as a living cognitive system – an ecology of interacting social subsystems – each of which is also a living cognitive system. We argue that this approach can help us to conceive sustainable social systems that will thrive in the circumstances of accelerating change. The Living Cognitive Society is explained in terms of its fluid structure, dynamics and the mechanisms at work. We then discuss the disruptive effects of Information and Communication Technologies on the mechanisms at work.

We conclude by delineating a major topic for future research – distributed social governance – which focuses on processes of coordination rather than on stable structures within global society.

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1. Introduction

Today's society and life in general is characterized by the all-encompassing fast change and movement. New technologies, new jobs, new opportunities, new dangers – i.e. new unknowns – seem to fall on us before we are able to figure out how to make sense of the current ones. Our psychological reactions vary among: (1) attempts to ‘stabilize’ the environment (social, political, technological, biological) by imposing more controls and checkpoints; (2) calls to embrace the change and ride its wave towards a ‘new world order’; (3) ad-hoc proposals for dealing with challenges of our times (e.g. information overload); or – (4) a sense of helpless dis-attachment.

No matter what is the specific reaction to the socio-technological change we are experiencing, it is based on a way we make sense of ourselves, others and the world. Usually we base our sense-making on perceivable stable objects and their relationships in the world. A specific configuration of such objects and relationships within a system describes its state. The change of the system is then perceived as a chain of transitions between states. This is a well established mode of thinking which helped us tremendously in achieving most of what human civilization created since its beginning. But is it still valid in the era of the ever accelerating change?

This paper proposes the original conceptual framework for thinking about a changing social system and applies it to the contemporary situation of the global information society. The gist of the framework is the approach to a social system as a living cognitive system – an ecology of interacting social subsystems. We do this by developing the concept of *the Living Cognitive Society* – a distributed social system characterized by the interaction of multiplicity of heterogeneous agents and subsystems. First, we analyse the current situation of a global society, its underlying reasons and ask a question ‘what kind of global system could sustain and thrive in these circumstances?’ (Section 2). Then we provide a detailed tour to the theoretical concepts which form the basis of the framework (Section 3). The description of the main concepts is followed by the rationale of their integration (Section 4), which explicates the application of the theoretical basis of our framework to the situation of the global society. The locus of the paper is the detailed characterization of the Living Cognitive Society in terms of its structure, dynamics and the mechanisms at work (Section 5), building on notions and concepts introduced in the previous sections. Finally, we apply the concept and mechanisms of the framework to the thinking about the impact of information and communication technologies (ICT), particularly Internet, on the global society (Section 6). The issue of the governance of a Living Cognitive Society is intricately related to the mechanisms at work within the system, and also represents a distinct challenge and the field of research. We therefore dedicate the last section for introducing the paradigm of *distributed governance* (Section 7) as an avenue for future research.

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We simultaneously aspire to several goals with this work. Most importantly, we aim to construe how the concept of the Living Cognitive Society, and our approach to the global information society, follows from a much broader philosophical and theoretical framework, guided by the theory of individuation. Therefore, while the theoretical framework alone has been developed elsewhere (Veitas and Weinbaum, 2015; Weinbaum and Veitas, 2016a; Weinbaum, 2012), this paper provides an integrated summary of the main concepts with references to appropriate sources.

Hence, the paper combines: the conceptual framework (Sections 3 and 4); the application of the framework to the social reality (Section 5); the role of ICT and Internet in the disruptive change of the global social system (Section 6); ‘connective tissue’ – the interpretation of the current situation of the society (Section 2) and consolidation of concepts with application (Section 4); the avenue for future research (Section 7). Above themes are not linearly presented, but rather intertwined in order to better convey the relation between philosophical framework and its application to the global social system. A number of cross-references is provided in the text for navigating its thematic structure.

2. The current situation of the global society

The current situation of the global society can be characterized by the overwhelming feeling that the world is changing too fast for a single human and society to comprehend (Heylighen, 2002a). This feeling furthermore extends to the inability of coping with the change, at least without a paradigmatic shift in how humans individually and humanity collectively relate to the world and themselves (Willke, 2007, p. 190). There are two aspects to the perception of disruptive change of our social reality, both playing an important role. The first is the actual acceleration of the life pace, which can be connected to the relative, yet increasing, separation of humans from nature. It is probably rooted in the dawn of the human civilization, but has ‘become a fully fleshed out experiential concept only with Industrial Revolution’ (Koselleck, 2009), and arguably is reaching its climax with the rise of the ‘networked world’ (Helbing, 2013; WEF, 2013). This separation has allowed humanity to dissociate its activities from the rhythms of natural phenomena (day and night, harvesting seasons, etc.) forcing the socio-technological acceleration on itself. Another aspect is the psychological reaction to uncertainty, mostly related to the ‘information overload’ and the ‘future shock’, inherent in our times (Heylighen et al., 1999). Both aspects contribute to increasing *social complexity* of our world.

2.1. Factors of social complexity

Three major factors of social complexity can be identified: accelerating change, hyper-connectivity and reflexivity:

Reflexivity is probably the most important characteristic of a social system which refers to the consideration that it is created by the collective behaviour of its participants and, at the same time, exerts an influence on the behaviour on its participants. Every participant (e.g. person, institution, nation state) of society both affects and is being affected by other participants, causing circular internal relationships among them, as well as mutual dependency between participants and the whole society. Most importantly, reflexivity refers to a feedback relationship between observer/participant of a social system (i.e. intelligent agent) and the observed (i.e. the ‘environment’ – the system as a whole).

Hyper-connectivity is a major symptom of progress, resulting in a world where every agent, event and process is connected to many other agents, events and processes therefore making all elements highly interdependent. The ‘networked world’ is therefore an example of a fragile system, where local events may spread to affect the whole global system (e.g. in case of stock market crashes).

Accelerating change is due to the explosive multiplication of information in the hyper-connected and reflexive system, which is our global information society. It is a source of uncertainty and confusion in almost all domains of social and human life, because participants of the system have limited capacity to process this information, let alone to match the speed of information multiplication.

The central question which this paper aims to answer is therefore: what kind of social system could sustain and, furthermore, grow and thrive in such circumstances?

2.2. Fluidity versus structure?

Due to increasing social complexity, the future of the global society does not resemble the past any more, therefore our mental and formal models lose their predictive power even in the short-run (Veitas and Weinbaum, 2015) resulting in an impression of a chaos, ‘crisis’ and ‘the state of emergency’. While the accelerating change and information overload are the actual characteristics of the current situation, the ‘state of emergency’ is rather a subjective reaction rooted in many prevailing worldviews.¹

They are derivatives of the *Newtonian* worldview – based on the concepts of reductionism, determinism and objective knowledge (Heylighen et al., 2006). Following this worldview we make sense of the social reality by looking for the existence of stable states in a social system. These states are usually manifested as hierarchical or control relations among the system’s elements, participants or subsystems. Change is then conceptually understood as a series of transitions between stable states.

In other words, we are trying to mentally ‘stabilize’ the increasingly fluid and changing social system by finding more or less stable, and often hierarchical, structures within it and then reflexively enforcing them onto the system in the form of governance systems and institutions we create. This discrepancy creates an impression that there are no good models (or even worldviews) for understanding what is going on. In the situation of hyper-connectivity and accelerating change, the ‘stabilization’ operation becomes non-effective – leading not only to the impression of ‘crisis’ and ever growing uncertainty, but also increasing tensions within and fragility of the system.

Any structure, whether it is nested, control, tree hierarchy or ‘heterarchy’ implies that certain elements or parts of the system constrain other elements or parts. In real systems, these mutual constraints tend to be asymmetric, meaning that some components/parts of the system constrain others more than are constrained by them – which indicates a more or less ‘fuzzy’ control hierarchy, ‘fuzziness’ of which depends on the degree of asymmetries within the system. Fluidity does not mean the absence of asymmetries, inequalities and hierarchies, yet it does imply ever changing asymmetric relations among elements and parts of the social system.

Seeing the global society in terms of strict dichotomy of “disorder versus structure/control” is counter-productive for understanding and governing it. Both ends of this dichotomy are undesirable: disorder is simply not a viable solution for society, while stable structures are not sustainable and even harmful due to the increasing social complexity. We therefore propose to approach society in terms of a fine balance of ever adapting temporary structures in otherwise fluid whole – a “viscous” system.

2.3. A “viscous” society

We emphasize the view to the global society as a complex system consisting of interacting subsystems at multiple scales. Nations, states, religions, languages, local as well as international institutions and

¹ The concept of a worldview is instrumental for the conceptual framework of a social system which we are building in this paper and will be addressed in detail later (Section 3.4).

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