Extended Abstract

Living Cognitive Society: a 'digital' World of Views

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Global society is a complex system consisting of interacting subsystems at multiple scales. Nations, states, religions, languages, local, international institutions and governments, enterprises, fishing clubs, families, persons and pets are only a few examples. Clearly, social subsystems and units are fuzzy, overlapping and interacting in a largely non-hierarchical manner. While many of the social subsystems such as companies, armies and factories are highly organized, others, such as linguistic dialects or religious beliefs are much more fuzzy. Almost without exception however, contemporary governance structures are organized hierarchically which leads to the false impression that society can be described and, moreover, governed, based solely on a hierarchical model.

We propound to view a social system as a living cognitive system [3-5]. The paper proposes a model of a scalable cognitive system [7,8] and a derived vision of distributed governance – *A World of Views* [6] as a framework for a futuristic global society also known as *A Global Brain* [1,2]. At each scale, the model describes a population of interacting elements which are themselves compound systems at a lower scale thus representing a nested structure of recursively defined interacting sub-systems. Remarkably, the model facilitates the representation of fuzzy-bounded and overlapping sub-systems as well as their interactions both within and across the scales. Such a system cannot be designed or controlled hierarchically, but rather *evolves* while interacting in its environment. Central to our approach therefore is the concept of *synthetic cognitive development* - a general process for modeling the dynamics of the global society [8].

Society as a cognitive system operates by making sense of its environment and of itself. *Sense-making* is a continuous effort of grasping elements of the social realm and self and their ongoing relations in order to anticipate their trajectories and effectively introspect and interact. By engaging in interactive sense-making, a cognitive system is constructively guiding the emergence of new structures

and relations as well as facilitating the disintegration of the old ones. Synthetic cognitive development is defined as a progressive process of *increasing the sense-making capability of the system*. We argue that cycles of integration and disintegration guide the ongoing individuation of a system towards higher levels of sense-making and coordination.

The concept of *information society* highlights the significance of information technology for the cognitive development and structure of the whole sociotechnological system. We discuss how the emerging information technologies are disrupting the cognitive development of society via three mechanisms: (1) the conversion of existing sub-systems of the global society into a digital form; (2) the multiplication and diversification of the digitized sub-systems at all scales; (3) the accelerating hyper-connectivity and speed of information exchange, affecting integration and coordination within the global system.

We want to guide our social organizations to become more intelligent and serve us better, in other words - to make better sense of their environment and sub-systems. We apply our model for describing the dynamics and evolution of the information society. In our conception, the Global Brain is a "world of views" – an ecology for interaction of competing and cooperating multiple cognitive agencies of different scales rather than a singular unified entity. This ecology allows for the emergence of temporarily integrated cognitive organizations at any scale and ensures that obsolete hierarchies get eventually disintegrated, thus effectively substantiating a living cognitive society.

References and Notes

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