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Ilgenayeva, Valentyna; Elbeshausen, Hans

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Interaction, Activity, Knowledge: Drivers of Unpredictability in Post-industrial Societies

Valentyna Ilgenayeva[1], Hans Elbeshausen[2]

[1] Kharkiv State Academy of Culture. Ukraine, Kharkiv, Bursatskij uzviz 4
E-mail: ilganaeva_v2006@ukr.net
[2] Royal School of Library and Information Science Copenhagen. Denmark, Copenhagen, Birketinget 6
E-mail: he@iva.dk

Abstract

Purpose. The paper mainly concentrates on the role of information and knowledge in transformation processes. It examines and compares the concepts of information and knowledge in the social interaction theory and the cultural-historical activity theory. The dialectics of power rationalization and knowledge politicization are noticeable in the techniques of social engineering and political administration. The social interaction theory and the cultural-historical activity theory have been chosen to overcome the methodological dualism of individualistic and holistic approaches.

Methodology. The study builds on the methodology that integrates several scholarly disciplines. The ontological perspective was used to compare the social interaction theory and the cultural-historical activity theory.

Findings. Both theories are rooted in social practices and individual activities and are vital for historical changes and society transformations. In both theories, knowledge is identified as individual knowledge of the process of organizing social life and as the result of collective social activity.

Research implications. Knowledge and its paradigmatic products are the constructs of qualitatively new ideas about the world, its interactional structure, political culture, information flows and social relationships. Research using an interdisciplinary methodology and design provides a holistic understanding of the importance of knowledge in the post-industrial society.

Social implications. Grounds for social transformations are to be identified by considering socio-cultural activities as cooperation; social relations and interaction – as co-cognition. The implication is that: a) transformation processes are social knowledge, b) knowledge have value in a historical, visionary perspective.

Novelty of the paper is that an attempt has been made to approach knowledge from an interdisciplinary perspective.

Keywords: social interaction theory, cultural-historical activity theory, comparison, knowledge society, shortcomings, individual knowledge, collective consciousness, methodology.

Introduction

In the second half of the 20th century the concept of knowledge has radically changed from an epistemological and philosophical idea in the late fifties to pragmatic and strategic actions.

From the sociological perspective, fundamental social transformations can be viewed as the process when, firstly, knowledge is produced, then scholarly knowledge is integrated into activity and lastly the power of science is used to transform and explore the world (Wagner, 2008, 146).

Speaking about societies, Marx emphasizes production, labour, capital and natural resources, Weber - disenchantment and bureaucratization, Parsons - social development. Fundamental transformations in societies, faced by global society during the past 50 years, could be conceptualized using the term 'information and knowledge'. These are the main drivers for progress, economic growth, political and social stability.

On these grounds, the post-industrial society is called the information (or knowledge) society. When it comes to the social organization of future societies we argue that knowledge will gradually supplant information. The knowledge society first and foremost puts emphasis on the significance of scientific knowledge when it comes to productivity enhancement in highly developed countries. Information and knowledge also encompass social, political, cultural and cognitive features (Knorr, Cetina, 2008).

As far as the social order is concerned, global information and knowledge, their interaction and flow reduce social stratification. From the ideological perspective, knowledge, due to its capacity, plays a crucial role in different social systems. However, if knowledge is understood only as a driver for actions, its capacity gets lost. Global knowledge secures social integration and mutual recognition.

Speaking about the content of knowledge it should be noted that it is related to ICT development and use and thus it is important to explain the role of technological knowledge.

The aim of the paper is to define the concepts of knowledge and information as crucial but ambiguous resources developing the knowledge society (Lemke, 2007). Historically, a conceptual framework represents the primacy of scientific knowledge (Bell, 1973; Stehr, 1994a). Institutional and strategic knowledge should be used for the development of creative and innovative capacities of society (Gorz, 2004). Discussing the content and functioning of knowledge within the social interaction theory and the cultural-historical activity theory, we will try to specify the new scientific paradigm of the knowledge society and its ambiguities.

Coming of the knowledge society

A deep crisis of concepts, values and structures, which prevailed in the industrial stage of socio-economic development, caused a new view on knowledge. It was Bell (Bell, 1973) who developed a meta-theory of knowledge, he asserted that the basic principle that determines societal activities, social stratification and cultural differentiation is knowledge and information. Because of the overall significance of knowledge the post-industrial society was called the information society (or knowledge) society. Drucker (Drucker, 1957) observed earlier than others that formal knowledge is becoming the driving force for organizing activities in the future. Further, he concentrated on symbolic resources and investigated how knowledge should be organized with the aim to enhance knowledge productivity and to heighten its responsibility. Riesman (Riesman, 1958) proposed a three-step strategy to compensate for an inhuman and alienating workplace in the industrial society.

Since then scholars from diverse cultural and ideological backgrounds augmented Drucker's concept of knowledge and knowledge workers. Lyotard (Lyotard, 1979) emphasized an increasing externalization and objectification of knowledge. Stehr (Stehr, 1994) defined knowledge as a capacity for action by which he meant that only knowledge allows individuals, groups and institutions to function in a reasonable way using available information. He named essential transformations in the economic system. Standardized machine-based technology and mass consumption were replaced by a dialog and interaction, Victor and Boynton (Victor & Boyton, 1998) characterized that as knowledge co-configuration in products, services and systems.

Scholars Harvey and Castells highlighted different features of the coming of the post-industrial society. according to Harvey, such cultural dimensions as flexible accumulation and time-space compression define the fragmented process of social changes (Harvey, 1990, p. 11). Castells understood identity construction in network societies as a collective process of self-defining and individuation. Identities differ from roles because the first process deals with organizing meaning, the latter concentrates on functions.

Luke (Luke, 1996) defined the social order in economic and identity terms. According to him, participation (non-participation) in the flow of information is crucial for social differentiation, status change and access to cultural capital.

The center of economic and cultural activity moved away from industrial production. Global and structural changes in the second half of the 20th century made knowledge an innovative activity by its function, scientific structuring by its organizational form, an information-analytical exploration by its method. The new society became a social unit which is built on enhanced telecommunication, developed human capital. The coming of the knowledge society will be examined as a multi-layer process in regard to social interaction and social activity.

Social interaction theory of knowledge in the social-cultural process

The social interaction theory (SCT) studies a variety of interactions in history and society. The SCT is characterized by an under-structured field of a object-subject disposition, that comprises behaviorism, existentialism, evolutionism, structured linguistics, semiotics, cognitive psychology, etc.

The SCT has just started developing the conceptual framework that will allow us to study the fundamentals of social interaction in the age of globalization. It is important to note that an approach to the SCT has always been mediated by the

developmental stage of society and by the dominant philosophical and theoretical worldview.

Any means of social interaction, McLuhan (McLuhan 1962) believes, correspond to the set of individual, collective, public needs and satisfy them. The same principle can be seen in the development of communication means: oral language, writing, printing, information systems, multimedia communication, etc.

Artificial means in personal interaction, communication and education appeared as the result of attempts to overcome the limitations of natural public communication means. Language, the system of signs, is particularly important in all human activities, human life. Document flow increased and institutionalization of collective memory intensified with the invention of the alphabet and print media. As a consequence, the objects of everyday life, such as architecture, music, dance, fine arts, folklore, religion, literature were gradually supplemented with the communicative function.

Nowadays the SCT encompasses all forms, methods, facilities, structures, technologies and communication systems. Artificial sign systems in various stages of their development and specific channels are used to organize and maintain activities, transmit, store spiritual states, cognitive concepts, material artifacts. Libraries, archives, museums, radio, TV, modern information systems and networks are information and documentation centers. They implement the functions of institutionalization, communication, social interaction. In the age of globalization the SCT integrates social interaction and information transfer. It is the result of the development of communication resources and structures, mental and spiritual practices of mankind.

Activities, cognition and interaction are the main features that characterise human beings. On the one hand, social interaction is the result of human activity, on the other hand, it is a separate activity and the form of social existence. That justifies McLuhan's statement that communication is the precondition for social development.

The SCT defines the new global integrated reality as the world-space social interaction. The new media reality has already changed material artifacts, communication forms. The SCT views the new media reality as the space of social activities, where people interact and construct a web of meanings. In the new media context, the development of a spiral-shape model of social interactions, presented by Dance (Dance, 1967), prevails.

The objective of the communication science and practice is to organize social activities within the semio-sphere (Lotman, 2005). However, that can be achieved if the common principles of human beings are followed and man will act and self-identify as a social being.

In the SCT, it is assumed that knowledge of one person should become part of knowledge of another, even others, accumulated and shared knowledge should lead to qualitative changes in the consciousness of mankind as a social subject. The era of the information society has only laid the foundation for a new stage of societal organization which consists of web-based and de-territorialized connections. The common ground for such connections (or social configurations) is shared world views, common understanding of cultural and historical processes and aims regarding a personal and social development of the global society. That can be called a communication unity.

Co-understanding and even "energy amplification", according to Jensen & Dahl (Jensen & Dahl, 1999), is demonstrated through the spread of communication technologies in politics, education, social management (PR technologies in particular). As Castells (Castells, 1996) noted, advanced technology and a radical re-configuration of knowledge which is based on enhanced information processing, has become a new source of productivity in the network society. Accordingly, we define co-understanding as the impact of knowledge on knowledge.

Especially quantitative achievements in social communication will accelerate the growth of information, which is already close to the limits of the absorptive capacity of social systems. It is feared that qualitative transformation will be adversely affected hereby. Negative effects also include vulnerability and sensitivity of communication objects and influence on the consciousness of people.

Apart from social interaction the SCT deals with other communication activities. Construction of labour-related objects is a special kind of knowledge creation and innovative learning. The process of functional differentiation as a crucial factor in cultural knowledge creation leads to verbal, visual and digital sub-systems within the communication system. Knowledge becomes the product of activity in the semio-sphere and accompanies humans in their everyday life problems of modern civilization.

The development of network communication is connected with the transformation of documented knowledge into information, information about documents into structured information about their content and sense, semantic information into knowledge. This illustrates a transition from document systems to information systems and finally to knowledge systems and is clearly shown in the sub-system of a library.

Considering media-space as an environmental system, we notice the results of social transformations which become repeatedly cyclical in the cultural historic process. Environmental changes in the communication space indicate an acceleration of the rhythm of reformatting under the influence of centripetal processes. The evolution of social communication is woven into the evolution of society as a general process of cultural genesis and civilization development. The formation of a global social communication system becomes the final stage of the formation of social interactions. The creation of integrated human civilization is based on activity and knowledge and results in a comprehensive rise of personal and collective needs, which may be in opposition to the needs of others and nature. Interdependence and mutual responsibility of people require to build social relations on the basis of a new dimension of existence - unity and integration. This shifts the emphasis of communication from its technological basis. Instead, the interaction between the content and the purpose of knowledge implementation in society is emphasized.

The emergence of social communication needs in the triad "object-environment-interaction" reflects the state of consciousness: "knowledge-non-knowledge-knowledge". This in fact develops Osgood-Shramm's position about a cyclic model of communication as the process of cooperation of communicators.

Social memory of mankind, as one of the components of public intelligence, is the result of social communication activity and leads to the creation of "collective consciousness". In the SCT, evolutionary transformation is interpreted as a general adaptation to the requirements for providing and maintaining social needs. Nowadays these processes are supplemented by the mechanisms of social control through the tools of innovation management, information management and knowledge management. All achievements of human civilizations are stored in documentary memory, books, updated in information systems and synthesized in expert systems. The future goal is to ensure conditions for humanity through united actions and increase the efficiency of the use of knowledge for a sustainable, balanced material and spiritual development of man.

The ultimate goal of the social communication system is to stimulate the growth of "collective consciousness", promote social intelligence and create a harmonious cultural-civic space. Under modern conditions this problem is solved through manageable influence on communicative environment and the formation of a common scientific outlook (economic, civic, humanistic, spiritual) via intelligent communication facilities.

In the modern social communication system, completion of a structure-organizational and functional-content diversity is associated with cognitive saturation of social communication spheres of society. Along with mankind's cosmo-biological, genetic knowledge during its social evolution social knowledge is the result of activities while communication and cognition are also growing.

Cultural-historical activity theory

The cultural-historical activity theory (CHAT) was founded by Lev Vygotsky in the beginning of the previous century. Vygotsky, a Russian psychologist, was mainly interested in the evolution of higher psychic functions in the communication process of a child and an adult. The focus of his pioneering work was the concept of mediation, which he considered to be the linkage between cultural tools (such as languages) and an intrapsychic expansion of the mind. The primary idea of the CHAT is, as Lektorsky (Lektorsky, 1999) pointed out, to overcome the Cartesian separation of the outer and the inner worlds and at the same time to avoid the methodological fallacy of subjectivism and objectivism.

The CHAT started as a local school based on Marxist philosophy but soon developed into a spacious construct, which covers different scientific disciplines. A detailed overview of the CHAT is to be found in Lompscher's works. According to Lompscher (Lompscher, 2006, p. 37), one can identify a limited number of principals, which characterize the field of today's CHAT.

Activity is the key concept of the CHAT: actions, set in specific social and cultural spaces, carried out by an individual or collective subjects (Lektorsky, 1999, 2009). Activities are structured and perform a structuring function. Human activities, due to their dialectical structure, help overcome the

divide between individual actions and the societal structure. “The individual could no longer be understood without his or her cultural means, and the society could no longer be understood without the agency of individuals who use and produce artifacts” (Engeström, 2001, p. 134).

As a consequence, activity is closely related to a specific approach to history and social progress. Social change, notion mainly characterized by its dualistic framework, refers to an evolutionary change in the structure of society, its rules and regularities. Unlike social change, the concept of transformation reveals suddenness, intensity and totality of developmental processes in history. Therefore Engeström argues that transformation processes can be analyzed only if changes in society are understood as social practices within a human being’s creative capacities. The structure is not an external but an integral part of activity, the concept reminds Giddens’ duality of the structure (Giddens, 1984).

As mentioned above, changes in the industrial society basically have been analyzed by using macrosociological data, i.e. distribution of main workforce groups, and due to current shifts in the forms of knowledge. Bell was uncertain for a long time how to appropriately name society and transitions but finally, due to many new technical professions and vast scientific knowledge, he started using the term ‘the knowledge society’ (or the information society) (Duff, 1998). That was mainly done on a statistical or formal basis. Further we will rely upon Bell’s concept of the knowledge society but try to expand it by including some qualitative aspects. Because the CHAT mainly is understood as the object-oriented theory, we will first and foremost deal with the nature of knowledge objects. In accordance with the methodology of the CHAT, social changes will be studied at the meso-level.

‘Runaway objects’

Information and knowledge are the key resources in post-industrial societies that have led to a corresponding labor differentiation. Accordingly, practical and tool-based activity patterns have become less important and symbolic and conceptual tools - more important. The importance of symbolic resources, expert systems and specific knowledge cultures have been emphasized in relevant studies. These assumptions coincide with the analysis of the knowledge society by Bells or Druckers.

However, in the CHAT knowledge is defined as activity rather than as a form or content. The analytical look is primarily directed to the object-subject axis. Objects are an integral part of any activity. They are anticipated, encountered and constructed within activity systems. Objects reflect experiences and comprise drafts for the future. As Engeström et al. (Engeström et al., 2003, p. 152) illustrated by referencing to Knorr-Cetina, objects have the function to be the intersection of different knowledge regimes and cultures of knowledge. Interaction and communication rules are also emerging in an interplay with objects.

Those ontological assumptions that the CHAT attributes to objects for analytical reasons are of particular interest. How ephemeral or constant are objects in the post-industrial world of change? How stable are social, cultural and ideological structures, in which objects are embedded and where do they become significant? Engeström has repeatedly dealt with these questions. He points out that social and cultural structures have become more volatile and that objects are extended in space and time. Engeström particularly refers to the growth of ambivalence (Bauman, 2000), uncertainty and risk (Beck, 1986), multiplication of perspectives and increasing complexity. Emergent objects require new activity systems and innovative knowledge tools. Thus, the term a ‘runaway object have become central in his analytical and theoretical efforts.

‘Runaway objects’ have the ability “to escalate and expand up to a global scale of influence. They are objects that are only weakly under anybody’s control and have far reaching, unexpected side effects” (Engeström, 2006, p. 10). They are difficult or impossible to control. The runaway potential, which might be translated as a critical mass, is hard to be estimated and predicted. Diabetes or the Linux platform illustrate that neither a critical and innovative potential of ‘runaway objects’ could be predicted nor their vigor and intensity be determined. The runaway potential is often spotted only during cultural crises or the periods of accelerated social transformations.

Engeström uses four categories in order to operationalize the instability of objects: 1. Extension in space and time; 2. Distributed agency; 3. Knot-working in different expert systems; 4. Knowledge cultures and boundary-crossing. His concept of ‘runaway objects’ results in the proposition that a fugitive nature of symbolic and material objects

inevitably enforces informal structures in knowledge production and that new knowledge mostly emerges in dialogical, networked and boundary-spanning processes. 'Runaway objects' reflect the complexity of the current social development as well as the limitations of our cognitive means.

Sannino et al. (2009) have pointed out that in the CHAT activity is the only significant source and medium of knowledge. But activity is more than practical operations which are based on strategic and utilitarian calculations. This raises the questions: How can new knowledge and a better theory be produced? What methods are useful for this purpose? Expanding the scope of existing knowledge does not create new knowledge. New knowledge can only be produced, as Engeström puts it, in a dynamic process that leads away from old knowledge. Not formal properties of knowledge but its cognitive and learning-conducive potential is of interest seeking to explore 'runaway objects'. Instead of classifying knowledge formally Engeström differentiates between stabilization knowledge and possibility knowledge. Stabilization knowledge simplifies a complex reality, typifies and makes it conceptually conceivable. Possibility knowledge can be equated with exploring new and un-codified knowledge.

The CHAT uses a special methodology to deal with possibility: intervention scenarios. By interventions in daily practice actual limitations of knowledge can be experienced and the emergence of new knowledge can be supported. While authoritative ways of conveying knowledge belong to the past, challenge of current learning primarily consists of the exploration of non-knowledge. Non-knowing is the crucial object, expansive learning is dealing with it. One can differentiate between exploration and exploitation in regard to the degree of novelty of knowledge and the methods used to acquire knowledge. Radical exploration occurs in the contexts, where activity systems are being developed and transformed. The antithesis of exploration of transformative processes is exploitation or participation. This means that neither knowledge nor activity are innovative. Knowledge, brought into play, is known and tested. 'Runaway objects' require an explorative learning strategy.

Finally, it can be stated that knowledge, scientific knowledge included, has an emancipatory impact in the CHAT. Activity has been interpreted as direct involvement of individuals in existing activity systems. However, the limitations of daily activities can be overcome if and only if it is possible to develop useful theoretical concepts beyond situational constraints. Holzkamp (Holzkamp, 1995, p. 183) deduces a need for theory-based practice from the persistence of unresolved problems, Engeström – from "inherent contradictions, many disturbances and dilemmas" of social reality (Engeström, 2008, p. 258). Decentering, changing one`s point of view and boundary-spanning are appropriate learning strategies (Engeström, 2001, p. 140). Radical exploration or expansive learning is an interdisciplinary approach, which seeks to investigate the complexity of 'runaway objects' from multifaceted perspectives. Boundary-crossing and emergent understanding are among them (Scardamalia & Bereiter, 2006), they are the core of the CHAT's methodological tools.

Thus, in the CHAT objects play a prominent role. Therefore, we have particularly examined the ontological status of objects. We propose an expanded concept of knowledge mainly because of volatility in late modernity. Primarily confining knowledge to scientific, knowledge downplays the normative and integrative aspects that are pivotal in terms of the functioning of activity systems.

Discussion

Major parallels can be found in the SCT and the CHAT when comparing their methodological foundations. Both theories are interdisciplinary, they stretch out over different scientific paradigms, for example, the interpretative school and post-structuralism in social theory. The object of knowledge in both cases is defined by coupling structural and institutional elements with interactional skills and psycho-cognitive competencies in different kinds of social, cultural and communicative activities. A shared methodological reference is the concept of practice, which also includes scientific practice. That means in addition, that the research tools in the CHAT and the SCT practically coincide.

In both theories paradigmality and discursiveness of scientific knowledge (as a culture of knowledge in the CHAT) in the traditions of modernity are fixing fragmentariness in the information-cognitive space of the post-industrial era. In the information society this situation still remains due to personal knowledge in historical-cultural activity. The CHAT and the SCT discover this overcoming as an objective evaluation process in transition from networking to knot-working where knowledge becomes a common imperative

of individuals' activity, who overcome their partial state and follow the main goals.

The CHAT and the SCT consider information and knowledge to be crucial identifying transformation processes in history, analyzing the dynamics of organizational and self-organizational processes in social systems and grasping cognitive and intra-psychic development of individuals. However, while the CHAT is primarily object-oriented, the SCT is mainly subject-oriented. The struggle between social consciousness and individual knowledge becomes even more obvious at the global level of social life. Individuals are embedded in and part of the normative consensus which is based on communicative rationality of the world, whereas nowadays social systems extend to the global level and seem to operate increasingly on the basis of strategic rationality. That becomes particularly obvious through heterogeneous or ambivalent activities of social systems, where culture is getting more and more disconnected from practice. For example, strategies of macro-actors in education, politics and economy, in the sphere of external affairs or international decision-making are territorially detached and released on the one hand and attached and confined on the other hand. The mechanisms of de-terrotorialization and re-territorialization have a huge impact on the ontology of knowledge and its conceptualization as well as on understanding of subjectivity. Therefore, dynamic changes in late modern societies only can be sufficiently understood if the history of ontology will be supplemented with the history of the analytical tools, i.e. the philosophy of science. Pursuance of balanced development of society is still considered to be a prominent aim for future activities of the SCT and the CHAT.

'Runaway objects (CHAT) are opposite to 'runaway truth' (SCT) and can be interpreted as different approaches while analyzing social, cultural and ideological activities, which are defined by the absence of a communicational unity and by the presence of reifying structures. In the CHAT, knowledge is understood as activity, which means both applied and applying knowledge in social systems. In contrast in the SCT, knowledge is the product of social activity and the substance of labour in all processes of social communication. In the CHAT, co-configuration of knowledge presupposes a dialogical and self-reflexive culture of knowledge. In the SCT, co-configuration also implies co-cognition of knowledge, which may be understood best as the outcome of dialogical and self-reflexive processes in different cultures of knowledge. As it appears, those theoretical differences are objective but non-contradictory.

However, move towards new patterns of equality in the knowledge society is viable if: a) social structures, symbolic resources and material artifacts complement rather than contradict each other in the process of social production, b) globalization is not seen from a hegemonic perspective, c) the public sphere can be extended beyond national boundaries. The SCT and the CHAT share these theoretical assumptions and consequences.

Thus, the SCT and the CHAT try to address some currently unanswered questions concerning the concept of the knowledge society. Knowledge and its derivatives are paradigm-forming constructs of qualitatively new ideas about the model of the world, its interactional structure, political culture, information flows and social relationships. Knowledge as culture implies a vision of the historical-cultural processes, which are global in their form and integral in their character. Every subject with its social identity and cultural capital as well as the concept of subjectivity are affected by the implosion of national boundaries and the explosion of information flows. While the global world is the result of intensified socio-cultural activity, its integrity depends on the formation of a communicative unity including subjects, objects and social systems. However, unifying communication processes need to be institutionalized in a civil society and supported by anti-hegemonic power structures at a global level. An urgent task for the SCT and the CHAT is to work out a profound theory of global institutions and their functioning in global activity systems.

In any social system knowledge becomes an asset as soon as it goes beyond the scope of personal knowledge and overcomes the limitations of traditional organizational knowledge structures. New relations between members of the same community of practice are shaped in co-configurational processes based on knot-working rather than on networking. The unity of purposes, values, concepts, methods and technologies can be understood best as fragile outcomes of ongoing communication. Therefore, social communication is considered to be the activity that forms and transcends information and communication structures to different societal levels.

In the CHAT and the SCT, knowledge is conceived as social knowledge. That means, among other things, that different forms of knowledge

become a shared basis for further social progress only if a new world vision and social transformation processes are comprised in the picture of the future. Knowledge must have a use-value both of its historical, visionary and functional elements. Information, accumulated by humankind and circulating through communication channels, contains "content and meaning", by that we understand basic contradictions and the seed for future solutions. Analytical activities are social activities so far they are contributing to the elimination of principal contradictions.

Finally, knowledge is the key concept analyzing and forming a new social reality. Re-formatting the relationship between science and knowledge is the issue, which cultural historical activity should particularly aim at in the postindustrial era. Exploring the essential meaning of cognition and communication becomes the basis for disclosing new worlds in all spheres of the post-industrial society. Scientific and practical education, social management and innovation, socio-political activity in the civil society, communicative rationality and cultural integration in life-world are some of the crucial issues, in which the SCT and the CHAT have been engaged and will go on with.

Conclusion

Viewed from a sociological perspective fundamental social transformations can be depicted as a subsequent process, where, firstly, the influence of the divine on the production of knowledge was reduced, followed by installing the autonomy of scholarly communication and scientific activity. The fundamental transformations, that the world society faced during the last 50 years, were conceptualized, among other things, by the terms 'information and knowledge'. Both terms were considered to be crucial components of the civilizing process, for continual economic growth and political as well as social stability. On these grounds, the post-industrial period was mainly classified either as the information society or the knowledge society.

In our paper we concentrated mainly on three different but related aspects.

1) In the late fifties of the 20th century the concept of knowledge emigrated from the realm of philosophy and entered into the domain of pragmatic and strategic action. Contradictions between what is technologically and socially possible in the communication sphere and which kind of activities social communities are able to agree on, have become more obvious. Regarding ideological aspects, knowledge has played a crucial role increasing the strategic capacities of social systems. The post-industrial knowledge society by Bell, for example, is elitist in terms of the theory's sociological assumptions and utopian as regards rational management and control of social and administrative processes. However, if knowledge only is subject to strategic action, its emancipatory capability gets lost. Knowledge, applied in the life-world as everyday knowledge, secures social integration and mutual recognition. That includes possibilities to inform participants about common activities, present different models of behavior in discussions, make and achieve consensus in particular situations.

2) The struggle between social consciousness and individual knowledge was the second issue we touched upon. Its dualistic nature, even more obvious on a global level of social life, was examined from the perspective of the network organization of social relations. The SCT and the CHAT provide two different concepts: in the SCT, co-cognition is the outcome of dialogical processes in different knowledge cultures; the CHAT conceives co-cooperation as an ability to bridge knowledge gaps in mono-organizational and inter-organizational activity systems. That implies the need to consider how communication processes and activity systems may be changed in order to achieve a communicative unity essential for fair and sustainable solutions on a global level and their impact on local communities. The term 'runaway objects' illustrates what is meant by objects that are impossible to control on a local level. New forms of knowledge and global epistemic communities are necessary to analyze the volatility of unpredictable objects in order to enhance the understanding of developmental processes and administrative cooperation.

3) 'Runaway objects' and 'runaway truth' are spatial metaphors that signify unpredictable, creative and, in some cases, erratic processes of social change in late modern societies. If we assume that governmental processes are related to object-oriented social activities it is necessary to integrate a "philosophy of instability" into the conceptual framework. This implies that the governmental agency can no longer be framed in terms of control and predictability – a condition which is also mirrored in new trends of governance literature. Terms like transparency, dialogue, participation and inclusion of citizens (Lemke, 2007) indicate that co-

communication and co-configuration are conceived as appropriate means to cope with instability and unpredictability. Similarly, vibrant interaction between loosely coupled and knot-working organizations across institutional boundaries helps to control otherwise unpredictable processes in a more reflective way.

4) Nowadays social systems operate on a global level following the principles of economic and strategic rationality. As a consequence, culture becomes more and more disconnected from the constitution and practice of social systems. For example, strategies of macro-actors in education, politics and economy, in the sphere of external affairs or international decision-making are territorially detached and released on the one hand and attached and confined on the other hand. Local knowledge communities become substituted by externalized knowledge and expert systems, as Lyotard and Giddens pointed out. Externalized knowledge can easily be distributed as industrialized products and exploited on a global level. As a consequence, economic imperatives and managerial attitudes seem to dominate in communication processes in social development and administration.

Our conclusion is a rather abstract pronouncement: dynamic changes in late modern societies can only be sufficiently understood if the history of ontology will be supplemented with a history of analytical tools. In other words, the dialectics between stabilization and possibility knowledge (Engeström) and the creation of global democratic communication entities as well as epistemic knowledge communities should become a prerequisite for further investigation of information and knowledge applied in good administrative processes.

References

1. Bauman, Z. (2000). *Liquid modernity (Vol. 9).* Cambridge: Polity Press.
2. Beck, U. (1986). *Risikogesellschaft: Auf dem Weg in eine andere Moderne* (p. 205ff). Frankfurt am Main: Suhrkamp.
3. Bell, D. (1973). *The Coming of Post-Industrial Society. A Venture in Social Forecasting*. New York: Basic Books.
4. Castells, M. (1996). The Information Age: Economy, Society and Culture, Vol.I: The Rise of the Network Society, Blackwell Publishers, Oxford, UK.
5. Dance, F. E. (1967). A helical model of communication. *Human Communication Theory.* New York, NY: Holt, Rinehart and Winston.
6. Drucker, P.F. (1957). *The Landmarks of Tomorrow*. New York: Harper.
7. Duff, A. S. (1998). Daniel Bell's theory of the information society. *Journal of information science*, *24*(6), 373-393.
8. Gorz, A. (2004). *Wissen, Wert und Kapital. Zur Kritik der Wissensökonomie.* Zürich: Rotpunktverlag.
9. Engeström, Y. (2001) Expansive Learning at Work: toward an activity theoretical reconceptualization. In: *Journal of Education and Work* 14/1; p. 133-157.
10. Engeström, Y. (2005) Knotworking to Create Collaborative Intentionality Capital in Fluid Organizational Fields. In: *Advances in Interdisciplinary Studies of Work Teams* Vol. 11, p. 307-336.
11. Engeström, Y. (2006) Development, Movement and Agency: Breaking Away Into Mycorrhizae Activities. In: Yamazumi, K. (ed.) Building activity theory in practice: Toward the next generation. Osaka: Center for Human Activity Theory, Kansai University (CHAT Technical Report available online at: http://lchc.ucsd.edu/mca/Mail/xmcamail.2008_12.dir/att-0247/Yrjo.dev.pdf.
12. Engeström, Y. (2008). *From Teams to Knots. Activity-Theoretical Studies of Collaboration and Learning at Work*. Cambridge: Cambridge University Press.
13. Engeström, Y. et al. (2003) Spatial and Temporal Expansion of the Object as a Challenge for Reorganizing Work. In: Nicolini, D. et al. (ed.) Knowing in organizations: A practice-based approach. Armonk: M.E. Sharpe.
14. Giddens, A. (1984). *The Constitution of Society*. Cambridge: Polity Press.
15. Harvey, D. (1990). *The Condition of Postmodernity. An Enquiry into the Origins of Cultural Change*. Cambridge: Blackwell.
16. Holzkamp, K. (1995). *Lernen. Subjektwissenschaftliche Grundlegung*. Frankfurt/Main: Campus Verlag.
17. Jensen, R. & Dahl, M. (1999). *The dream society. How the coming shift from information to imagination will transform your business.* New York: McGraw-Hill.
18. Knorr-Cetina, K. (2008) Objectual practice. In: Mazzotti, M. (ed.) Knowledge as social order: rethinking the sociology of Barry Barnes. Hamshire: Ashgate, p. 83-97.
19. Lektorsky, V. A. (1999). Activity Theory in a New Era. In: Engeström, Y. et al. (ed.) *Perspectives on activity theory.* Cambridge: Cambridge University Press, p.65-69.
20. Lektorsky, V. A. (2009) *Mediation as a Means of Collective Activity*. In: Sannino, A. et al. (ed.) *Learning and Expanding with Activity Theory*. Cambridge: Cambridge University Press, p. 75-87.
21. Lemke, T. (2007). An indigestible meal? Foucault, governmentality and state theory. *Distinktion: Scandinavian Journal of Social Theory*, *8*(2), p. 43-64.

22. Lompscher, J. (2006). The Cultural-Historical Activity Theory: Some Aspects of Development. In: Sawchuk, P.H. et al. (ed.) *Critical Perspectives on Activity. Explorations Across Education, Work and Everyday Life*. Cambridge: Cambridge University Press, p. 35-51.
23. Lotman, J. M. (2005). On the semiosphere. *Sign Systems Studies*, (1), p. 205-229.
24. Luke, T. (1996) Identity, meaning and globalization: detraditionalization in postmodern space-time compression. In: Heelas, P. et al. (eds.) Detraditionalization. Oxford: Blackwell, p. 109-133.
25. Lyotard, FJ. (1979). *The Postmodern Condition. A Report on Knowledge*. Manchester University Press (1984).
26. McLuhan, M. (1962). *The Gutenberg Galaxy*. Toronto: University of Toronto Press.
27. Riesman, D. (1958). *Leisure and Work in Post-Industrial Society.* Mass Leisure, Vol. 3, Glencoe.
28. Sannino, A. et al. (2009) Activity Theory between Historical Engagement and Future-Making Practice. In: Sannino, A. et al. (ed.) *Learning and Expanding with Activity Theory.* Cambridge: Cambridge University Press.
29. Scardamalia, M. & Bereiter, C. (2006) Knowledge Building: Theory, Pedagogy and Technology. In: Sawyer, K. (ed.) Cambrdige Handbook of the Learning Sciences. New York: Cambridge University Press.
30. Stehr, N. (1994) *Knowledge Societies*. London: Sage.
31. Stehr, N. (1994a) *Arbeit, Eigentum und Wissen. Zur Theorie von Wissensgesellschaften*. Frankfurt: Suhrkamp.
32. Victor, B. & Boynton, A.C. (1998). Invented here: Maximizing your organization's internal growth and profitability. A practical guide to transforming work. Boston: Harvard Business School Press.
33. Wagner, P (2008). *Modernity as Experience and Interpretation. A new Sociology of Modernity*. Cambridge: Polity Press.

Ilgenayeva, V., Elbeshausen, H.

Взаимосвязь деятельности и знаний – факторы непредсказуемости в постиндустриальных обществах

Резюме

С точки зрения социологии, фундаментальные социальные преобразования можно представить в виде последовательного процесса, в котором влияние природной силы на знания было замещено субстанциональностью социального общения и научной деятельностью.

Фундаментальные преобразования, с которыми сталкивается мировое сообщество в последние 50 лет, связаны с осмыслением роли информации и знаний. Они были признаны важнейшими компонентами в цивилизационном процессе для постоянного экономического роста, достижения политической и социальной стабильности. На этих основаниях постиндустриальный период классифицируется как информационное общество или общество знаний. Относительно идеологических аспектов знания играют важную роль в различных социальных системах благодаря своему стратегическому потенциалу. Тем не менее, если знания трактуются только как основа стратегических действий, их духовно-субстанциональный потенциал утрачивается. Знания, применяемые для отображения обыденного мира людей, также способствуют социальной интеграции и взаимопониманию в глобальном масштабе.

Во второй половине XX века концепции знаний претерпели новые трансформации. В конце пятидесятых годов от эпистемологической и философской идеи знания стали перемещаться из области философии и вошли в сферу практических и стратегических социокультурных действий. В этой ситуации противоречия между возможностями в коммуникационной сфере и обоснованиями совместной деятельности в рамках социальных общностей стали более заметными. Первые включают в себя возможность информировать участников совместной деятельности, презентации различных моделей поведения в обсуждении решений по достижению согласия в конкретных жизненных ситуациях. Вторые означают сохранение конкуренции и приоритета личных и групповых интересов относительно всего сообщества в локальном масштабе или общества в целом. Это предполагает необходимость изучения трансформации коммуникации и деятельности в условиях информатизации и глобализации и внедрение принципа достижения коммуникационного единства при решении социально-культурных проблем. Мы предлагаем рассмотрение деятельности через призму сетевой организации социальных отношений в формировании единого для сообществ разной величины и статуса коммуникационного пространства. Коллективное сознание и коллективная деятельность как целостные образования в системе социальной деятельности являются результатом разрешения вышеуказанных противоречий. В процессе обсуждения данной темы мы использовали

метод сравнения теории социальной коммуникации и культурно-историческую теорию деятельности.

Борьба между общественным сознанием и индивидуальным знанием становится еще более очевидной на глобальном уровне социальной жизни. Индивиды, вовлеченные в эту борьбу, являются частью нормативного консенсуса, основанного на рациональности стратегического жизненного мира, тем временем социальные системы достигают глобального уровня и все чаще работают на основе коммуникационной рациональности. Это проявляется в условиях разнородной или амбивалентной деятельности социальных систем, где культура становится все более оторванной от социально-исторической практики. Например, в образовании, в политике и в экономике, в сфере внешних связей или при принятии решений на международном уровне стратегии макроактеров являются территориально обособленными, свободными, с одной стороны, и ограниченными, с другой. Таким образом, динамические изменения в условиях современного общества могут быть раскрыты только при сочетании исторической онтологии и аналитических инструментов.

***Ключевые слова*:** социальная теория коммуникации, культурно-историческая теория деятельности, объектно-субъектное сравнение, недостатки общества знаний, индивидуальное знание, коллективное сознание, методология.

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