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Social self in a virtual world

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ABSTRACT

Needless to say there is individual and collective impact on construction of social self. There are also significant dialectic contradictions at work between construction and experiencing of social self by individual or collective influences. The human species is able to combine separate but related processes for social and material interaction by means of individual input to collective activity systems. It is, however, a bit of a mystery how the balancing process between activity, consciousness and personality materializes in modern artifacts, by means of social support and as virtual agency. This study suggests a way of dealing with the features of collective virtual personality.

Key words: Activity, consciousness, personality, artifact, social support, dialectics

Social self in a virtual world

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SOCIAL SELF IN A VIRTUAL WORLD

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1 INTRODUCTION

Adam meant little to the world until Eve appeared in the Garden of Eden. Both humans were insignificant creatures until they built a social relation; first by noticing each other and second by explicitly acknowledging each other's existence. Eventually Eve offered an apple from the Tree of Knowledge. By extending their relationship with a gift, her action acquired meaning to Adam. Eve's singular act contained information saying "I intend to make friends with you." Transformation of meaning between instrumental "I give you an apple" and social "I want to be your friend" became apparent because of contextual cues. The meaning of Eve's act builds on a trajectory of first noticing another human being and second, establishing a relation. Today information and communication technologies (ICT) influence people, procedures and production. It seems as if the spread and impact of the technology is straightforward for most people. However, there are ethical, social and instrumental issues related to exchange of behavior and information. People simply perceive and conceive differently of technologically mediated communications. A comprehensive trajectory of research on ICT contains consecutive mental processes related to data, information, intention, meaning, communication, influencing and growth. For some decades now researchers and practitioners have grappled with a theoretically and practically developmental understanding of information – how to understand and model it.

2 THE CHOSEN THEME

As a consequence of the above, there is a need for a primary theory on the construction of social self. Most people have heard of *human characteristics*, an expression signifying a different idea from *what characterizes man*. In the West we assume that relation-building processes lead to social consciousness which constitutes a reflection of the physical world. As a consequence our consciousness makes up a prerequisite for a long standing (Dewey 1909) tradition of reflective thinking. We base our views of Man on an individually constructed consciousness of ourselves. But consciousness is also a social dimension that we share between each other. Social construction comes before – it is a pre-condition for – individual consciousness. Because of this contention we may take on different views on human characteristics and eventually what characterizes man.

Activity, consciousness and personality are familiar themes in the social sciences. More specifically, there are interpretations of Leontev's (1981) original contribution to what eventually became cultural-historical activity theory (CHAT). A significant point of departure for covering Leontev's extensive groundwork starts with a dialectic outline of attention, thinking, relations and natural contradictions.

The doctor who buys a practice in some little provincial place may be very seriously trying to reduce his fellow citizens' suffering from illness, and may see his calling in just that. He must, however, want the number of the sick to increase, because his life and practical opportunity to follow his calling depend on that. This dualism distorts man's most elementary feelings. Even love proves capable of acquiring the most ugly forms, not to mention love and money, which can become a veritable passion. (p. 255)

Most people experience situations in which the very instrumentality or orchestration of things brings on a sense of being caught between a rock and a hard place. *Dialectical relations* (Bloch 1959) lies in the construction of what it means to be human. Obviously, in focusing on dialectic contradictions between individual and collective influences to construction of social self and relating them to real life situations, a theory for explaining development or activity systems covers a lot. I start off by exploring three generations of theory, all of which appear in retrospect of the original source as outlined in the preceding quote.

3 PROBLEM DESCRIPTION AND PURPOSE OF RESEARCH

In order to be able to account for how people systemically respond to the dialectics of relation building, agency and inter-dependence we need to learn how they conceive of self-construction as a social process. We also need to learn how broad cultural experiences as well as narrowly defined working life influences shape their values, norms, beliefs, attitudes and actions. Ever since Descartes' dualist conception of an anti-social and self-contained Self saw the light of day complemented with Enerstvedt's (1977) equally extreme idea of a "collective subject", it has been a matter for research to address issues related to social Self. A weak version of how people construct social Self suggests that physical meetings and cultural habits form crucial influences to the modeling of a social self. A strong version of identity formation suggests that our ability to think and act comes as a result of socially constituted cultural contexts. For example, Karl Marx (1975, s. 423) says that human nature and individual identity comprises of an "ensemble of social relations." The suggested Marxist perspective on construction of a social Self, however, merely provides a context for clarifying a method and providing results that may help identify the factors that shape the characteristics and functioning of a modern social Self, for example in online game-playing environments. Can old interpretations help in that ambition? The purpose of the study at hand is to analyze (by theoretical modeling and empirical means) the functioning of individual and collective agency in ICT contexts; first by acknowledging the dialectical nature of life processes; then by identifying the pillars of activity theory - personality in particular; and finally scrutinizing the implications of an emerging analytical model.

4 STRUCTURING THE STUDY

A lot of research is directed towards modeling how man's social ability complements a unique personal drive (individual agency) – as opposed to animalistic instincts – to build on earlier generations and collectively develop (in) society by means of shared activity systems.

Enerstvedt (1977; 1982; 1985) supplies an early Western interpretation of activity theory, focusing on the historic development of mankind and individual growth. In a comment to his doctoral thesis, *Man Explicated as Activity*, a renowned Swedish pedagogical theorist (Lundgren, 1985, p. 241) criticizes the model because it applies equally for all sciences. He (ibid.) relates it to traditional Soviet psychology, saying that in 1929 alone Soviet authors published 600 books similar to Enerstvedt's. The main criticism against the proposed theory is that it confuses epistemology with psychology.

A later interpretation of Leontev's work is Engeström's (1987) systemic approach to justifying shared and collective activity systems for learning and development. It is only in one of his earlier works that Engeström (1985, p. 23) cares for the human species and individual human beings. A contemporary comment (Clot 2009) highlights Engeström's contributions on intervention, transformation and understanding within *collective* activity systems, including expansion of activity plus communication, dialogue and exchange of data, information and knowledge. The unit of analysis is activity. And the main point is to study how people attach significant value to collectively shared goals, systems thinking and transformation of materials, Other and Self by means of activity.

Bedny and Harris' (2005) third understanding of activity expand the concept, turning it into a primary *unit of analysis* by complementing action(s) with tasks rather than collective agency, e.g. during work related to human-computer-interaction (HCI). Yet another interpretation (Stetsenko 2005; Stetsenko and Arieivitch 2004; Stetsenko and Arieivitch 1997) is contrary to the preceding (Enerstvedt 1982; Engeström 1987; Leontev) contributions as it includes "I" in the analysis, i.e. outlining the subject and construction of Self as a legitimate *object of study* (Bedny and Harris 2005, p. 135). For this study I replicate Stetsenko's (2005) conceptualization of how people construct Self by psychological means of (a) material production; (b) inter-subjective communication; and (c) agency-subjectivity. The reason for

doing so is Stetsenko's (ibid.) ambition to avoid dichotomization between individual and collective subject by relating to the dynamics between material practices, inter-subjectivity and human subjectivity.

The discrepancy between the general emphasis on the transformative nature of human development on the one hand and the limited use of this idea in concrete conceptualizations of theoretical principles on the other, as well as the related emphasis of the collective at the expense of the individual dimensions, was one of the major reasons for a number of subsequent unfortunate misinterpretations in activity theory and related traditions. (p. 78)

Contemporary research, practical approaches and interpretations to understanding cultural activity theory (CHAT) from a variety of perspectives other than individual-collective impact on social self are Foot (2002), Nardi (2005), Miettinen (2006), Billett (2006), Wells (2007), Arnseth (2008) and Blunden (2009). For the referred approaches applies that material production of tools, social exchanges between people and individual higher mental functions for regulating exchanges between man and nature is at the heart of the study. The social practice of material production among people enable for societies to appear as activity systems. National governments, modern societies and ICT-communities – here defined as activity systems - regulate exchanges between the citizens/subjects/members at inter-subjective level. And following this line of argument, intra-individual higher mental processes transform collective practices.

4.1 Resources and challenges

In Leontev's (1978) version of activity theory there is an effort at explaining mental processes operating on the formation of identity; arguments explaining identity by means of the functioning of collective activity system. There is some mention of the role of the subject in the collective system, but Leontev most certainly considers and describes the subject as an integral part of an organic system. The suggested method of studying mental processes related to identity formation covers a variety of aspects of human life. Basically there is always an external source, a subject, initiating a sensuous, social and practical activity. From the subject's initiative mental activities start off in other individuals, affecting their consciousness about what is going on, the impact of their (re)actions and foreseeable outcomes. Both individual agency and the effect of singular actions on peers have a cultural-historical origin. Together they form the basic structure of a comprehensive, purposeful, object-related and goal-driven activity system.

The concept of personality allegedly contributes to activity (and visa versa). Also individual agency provides a natural starting point (impetus) to understanding collective development. However, personality is a psychological unit of analysis and by means of the concept we integrate higher psychological functions. We administer mental processes like memory, thinking, problem-solving and learning, thus forming a comprehensive Self. But first and foremost, we establish internal relationships between and within the subject in transformations of shared activities. According to social-constructivist and contextual learning theory, personality first appears when man realizes social capabilities, qualities and abilities as an actor operating social relations. The related term "identity" indicates that man is the product of cultural-historical development, all within a scope of how social relations may explain the structure and functioning of activities. The hierarchical build of need-motive-objective-action-activity characterizes how a person acquires personality: first as a child experiencing explicit forms of action and then experiencing social subordination of actions in relation to a significant Other. It is not until both processes are completed that a child becomes conscious of his/her identity. Formation of personality – thus understood – equals personal interpretation of meaning and eventually understanding of Self. The main thing is consciousness of Self in dialogical relations, social systems and society. Personality is what man makes of his potential, with an outcome reflecting individual claims as to what would be valid experiences of life. I suggest a typology of personality development which runs like this: first, an abundance of relations to the world; second, purposefully arranged "legitimate" motives; third, a structure for relating between meaning, understanding and motives.

One failing attempt to understanding how people construct the social Self has a much too narrow focus on social relations, leaving behind the situated context of the interactions. The researcher's focus on inter-subjective networks of people directs for the most part towards such context-free analyses. They hold little value in researching the impact of contextual cues that shape the interactions, i.e. culturally embedded language, concepts and artifacts. Another misguided approach to studying the formation, structure and functioning of social self separates between the interdependence of context (a collectively organized structure) and the subject's self-controlled actions

(agency). Such a focus on analytic separation between singular agency and collective activity hinders synthesis of holistic processes like planning, negotiation and decision making. The approach is better suited for development of theory than it is for describing and explaining the functioning of virtual activity systems.

Early on Engeström (1985) realized the crucial impact of the new technology on formal schooling, workplace learning and activity systems, warning against fragmentation and lack of reflective learning in the aftermath of computerization. According to Engeström (1987; 1990) activity theory offers the tools for analyzing the mediating effect of comprehensive activity systems as opposed to artifacts like computers in the interplay between man and environment. Bedny and Harris (2005, p. 142) complements Engeström's effort by classifying "the computer as a means of work", supplying a proper format for analyzing single actions rather than activity systems. Here, focus is on shared collective activities and singular individual actions.

By deploying CHAT as a means for describing the construction of a social self, structure and agency come together as one, at least in analyses of practical activity. But for information society, social science research includes communications (Lomov 1980 in Enerstvedt 1982; Luhmann 2003) as a significant unit of analysis. Therefore, a trajectory over the emergence of social Self starts off with context/structure plus agent/agency; then activity, consciousness and personality (Leontev 1978).

By their very nature models are copies, reflections and simplifications of reality. In modeling behavior, inherently influential researcher attitudes, feelings, arguments, relations and priorities are hidden, highlighted or out of order. It is a serious matter to consider if the underlying principles of a theoretical model are simplistic, e.g. regarding social construction of self. There are problems related to Engeström's (1987) triangular model of human activity from this respect. Part of the problem is that the model has an immediate appeal, attracting naïve researchers, leading in the wrong direction. Another problem is that the model is an excellent guide during the initial stages of research, when inexperienced students describe the background, object of research, the method for collecting data etc. But for ensuing analysis, the triangular model tends to create more confusion than clarity. The model is hard to follow during the succeeding stages of research when the students are supposed to analyze, explain and discuss the data. The main difference between Enerstvedt's (1980; 1982) and Engeström's (1987) interpretations of general activity is that the former covers for both individual input, processes and outcomes in and by the subject *and* collective influences, processes and outcomes. Engeström (ibid.), on the other hand, downplays the significance of individual agency, focusing and relying on the explanatory power of a "collective subject" as a means to explain human growth through shared activities.

The basic analytical unit for de-contextualized human production is similar for individual and collective approaches, i.e. Fig 1. subject-tools/instruments-object triangle. But where Engeström (1987) specifies exchange, distribution and consumption by means of rules, community and division of labor, Enerstvedt holds that negotiation, decision-making, planning, mediation and forms of *communication* describe the context of an activity for individual expansive learning and collective organizational development.

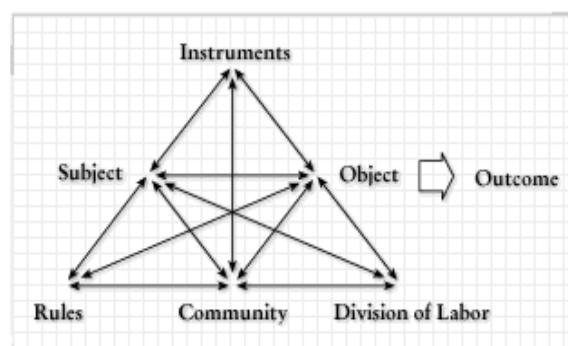


Fig 1. Individual action and collective activity triangles (Engeström 1987)

Fig 1 suggests that activity systems – or systematic (repeatedly occurring) collective human behavior follow general rules, regardless of context, culture or time. Here the crucial units of analysis would be (a) activity system; (b) object/objective/outcome and (c) subject. In the succeeding section I present items (a-c) that characterize man, corresponding with Engeström's model of general activity theory.

5 CHARACTERIZING COMMUNICATION

ICT-influences on type, quantity, frequency, processes, (= collecting, storing, retrieval, sharing) and management of information shape the characteristics of modern man. Here I label the effect of such management virtual personality. It is reasonable to specify some old truths which may still apply. We can look upon life either of two ways, as limited or limitless. Observed from any position we choose, there is a need to recognize the importance of controlled development. And we need to conceive of ourselves as self-guided, unique and adaptable individuals. We are different from other terrestrial species as we shape-produce-use nature for immediate needs as well as for sustainable livelihood. Guided by our immediate and comprehensive needs we transform the world. Our physical and spiritual life is connected to other people's lives and we share human qualities because we share situated activities.

5.1 Activity system

The form, contents and inner relations of the renowned general activity triangle (Fig 1) suggest an input-process-output model. According to the model, any original activity regenerates itself as activity (again) in a "culturally more advanced form". The lack of unambiguous separation between the impact of the singular (or collective) subject on the activity and the activity system itself is confusing. Therefore, Engeström's (ibid.) outline of human activity is an instrumentally *linear and systemic* model rather than – as claimed – developmentally *cyclical and holistic*. Co-ordination, co-operation and co-production are still interrelated acts, because productive activity has social character. Everybody would benefit if we only knew how to share material and spiritual resources. It is more often in principle than in reality that we know how to organize shared production optimally. Man-made structures, organizations and collectives of people as well as individual ambitions bear the signs of a double relationship; from one perspective we are a natural-biological-spontaneous mammal and from another perspective we thrive on social relations. Regardless if we assess our contribution to social life, we mould our social selves by means of shared, structured and collective activity. If we were to define human qualities in terms of a physical-biological organism, we are a natural social species. The human spirit, humanity or being human materializes as a result of the impact of an individual's totality of social/dialectical relations. Consequently, in being human, in displaying human behavior or in acting in a humane way, we go beyond ourselves, our needs, motives and actions, thus acknowledging the power of social scaffolding, bonding and empathy. We lead our lives, meeting other people, in physical-material environments called home, society, nation and earth. And so, we need to be able to acknowledge each other as individuals and build relations. Hall (1959, p. 186) says: "Culture is communication and communication is culture." Our socially emerging (= observation, construction, influencing, transforming) consciousness develops through, by, between and in communicative activity. Language use, emerging communications and relation building processes are familiar influences on human consciousness. By observing, talking, interacting and relation building, we deploy language as a practical and a theoretical instrument for self and for others. We become aware – or rather, we experience of and learn about the world and ourselves. The individual need for recognition through consciousness emerges from how we socialize with other people in shared activities.

5.2 Subject-object relation

It is hard to define and clarify the meaning of object of research, objective and outcome; i.e. developmental change in the object vs. in the characteristics of the studied activity. But it is comparatively easy to equal individual work on material objects with communicative influencing of people. Most people are unable to construct a realistic image of who they are. It is ethically as well as logically wrong to characterize people as (material) objects passively accepting the influences of other subjects. Still, we transform the world by living, committing ourselves, working and enjoying life. The contents of our commitment, work and hobbies changes the values, attitudes and beliefs that characterize man. Individual operations and actions plus collective and activities transform the material world. They also transform the agent's individual characteristics and the shared culture where the activities happen. Any form of work is a relation-building process between man and nature, i.e. material, plants, animals and people. In order to survive, feed, thrive and multiply, we employ muscular power to transform the world so that we can produce-consume-share-develop material and human resources. During this longitudinal process of material combined with psychological transformation we develop as a human species.

5.3 Subject

It is an illusion to think it is possible to measure, define and analyze a “collective subject” acting on objects and people. Still, before it makes any sense to talk about differences there has to be some similarity, relatedness or family-belonging between compared items. For example analyzing apples (fruit) and cars (machinery) is a futile business compared to investigating the difference between apples and oranges (fruit). Based on this contention there is a basic difference between for example man and animal as we relate to nature by working, transforming, producing, distributing and consuming material and spiritual resources in qualitatively more highly developed ways than animals do. Contrary to animals we can tell the difference between instincts, purposeful pursuit of goals and consciousness of objectives. In short, biological needs in animals are different from conscious motives in man. As humans, we are aware of the relation between means, objectives and results. Also, it seems likely that we are less aware of the process of building a social self than we are of the result of that process, i.e. personality. Our weak understanding of the process stems from the fact that operation, action and activity are concrete social phenomena compared to abstract mental processes like reflection, thinking, learning and memory. Certain characteristics constitutes the foundations of a comprehensive theory of what characterizes man’s position in the universe plus the quality of the cultural and natural processes that make us human; for example taking on board routine jobs, accepting exceptional assignments or leading our lives as responsible citizens. But still, we need to study both the what-result and the how-process of socially constructed self, i.e. learning how consciousness influences/is influenced (by) society, upbringing plus individual needs and motives. As a species we have developed over millions of years and as individuals we develop over the span of a lifetime. It is hard to cover both species-typical qualities and individual growth processes. In this study description of human behavior and characteristics meet in an analysis of how the young generation (World of Warcraft-players) construct and maintain a collective virtual personality.

6 ALTERNATIVE MODEL

Hansson (2004; 2005; 2007; 2008; 2010a; 2010b; 2010c; 2011) provide a variety of models on the interrelated character of learning and personality in ICT. By combining the pillars of an activity system (activity, consciousness and personality) with need, motive and objective, plus (Fig 2) feedback loops on (i) beginning, (ii) becoming and (iii) being a virtual personality, I provide a model for explaining learning as the outcome of efforts at establishing a social self ultimately transforming or rather marginally influencing the features of people’s rather stable personality. Appropriation of *artifacts* like WoW-software characterizes activity systems. Consciousness of *social support* is a significant prerequisite for learning in virtual and real life contexts. Establishing, strengthening and developing *personality* defined through construction of social self is a sought and legitimate/desirable objective of any analysis. The suggested transformations enable for analyzing interrelated ICT-feedback loops, e.g. on digital competence/workplace learning. Social support covers the subject’s consciousness of the crucial impact of relation building. Also, personality covers cognitive, affective and psychological relations within and between subjects. Fig 2. Is a three-step feedback-loop learning model on (appropriation of) *artifact*, *social support* (influencing type of) and (affecting qualities of) *personality*.

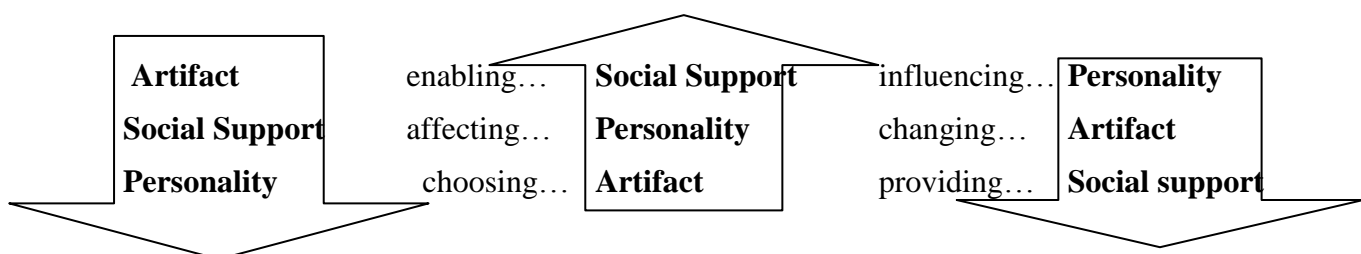


Fig 2. Initiating, developing, becoming a contributor and maintaining personality

Modeling of feedback loops on learning enables for exploration of how (i) the subject’s ongoing mental and social initiation processes, (ii) lead to becoming and maintaining of personality and (iii) influencing learning.

7 THE DATA

An official WoW-homepage <http://www.wowheadnews.com/> provides data on the players' interactions in a blog-like window. This hybrid-activity system differs considerably from the WoW-players' passages, rites, moves and behavior in the actual game. Homepage data consists of individual entries, illustrating snap shots of the players' concerns, interests and experiences basically about the effective-fluent running of the game but also about quests, items, issues and news. Homepage data also indirectly indicate the players' learning, entertaining-controlling-winning activity. During a week (24 June to 2 July, 2011) the players posted 20 *Wowhead* entries on themes and issues related to the software. Interpretation of the entries in categories of activity, consciousness and personality suggests that there is little room for social bonding or scaffolding on the homepage. The internal dynamics of the chronologically posted twitter-entries form a mix of information on Social support and Artifact, suited to structuring, categorization and analysis. Towards the end of the exchange, the chain of entries follows a series of expressions on Personality and Artifact.

7.1 Online player personality

On pursuing the legitimacy of considering, arguing and implying that the Self is social, i.e. the result of socializing, it is easy to argue that e.g. rural people in the old days, Modern man during industrialization or online personalities today present themselves as the result of division of labor, rules and regulations plus expansive forms of interacting and learning in a community of peers (Engeström 1987).

Young Internet user personalities cover unique and independent characteristics. It is an intriguing challenge to learn if - in playing online games like *World of Warcraft* (Gruber 2011) - young Internet users mechanically follow the requirements of parallel work within the game or if they adhere to an organic (virtual/cultural; collective/social) approach, providing a personal (real life) component to the game. Even though the players identify themselves as members of an open community, a close team or a friendly group, they show little responsibility for the progress of their peers, outside their temporary team, except for learning, playing or winning the game. Shared norms, values and attitudes related to game playing seem to promote social construction of each player's independent self. According to Durkheim (Merton 1994), the mechanistic rules and regulations of online games leave little room for socializing and development of the Self.

But with an increased level of realization in each player about the necessity to interact, the social character of Web 2.0 offers an opportunity. The independent Self – an ideal result of game-playing – becomes a subjective and constructive process manager. Regardless of context, time, instrument or division of labor, online players socialize their Self as lived reality and/or lived experience. But there is a need to go beyond a shared agreement about interdependence between individuals as a mediating concept for understanding construction, perception and appreciation of the Self. Young internet players have a spontaneous and “professional” orientation towards each other. In the lucky cases they promote socially constructed interdependence. That is, they preserve a certain degree of autonomy even though they experience growing interdependence through team working.

The effect of strengthened interactions and relations form a productive Internet culture that seems to contain certain values and value directions. Traditionally interdependence and collectivism (*self-transcendence* in Hansson et al. 2010) develop as one. Independence and individualism (*self-enhancement* in Hansson et al. 2010) also tend to come together as synonymous processes. There is another cultural dimension however, which confuses the straightforward picture of individual agency versus collective structure. Online cultures differentiate between low and high power-distance approaches to the interacting agents. Functional online communities like WoW-communities are rather on the collective than on the individual side of things. Contrary to online blog communities (Jonsson 2011) they are also low on power distance. And it would be a mistake to characterize online players as either individual or collective selves. The users' selves hold an individualistic and a collective dimension, possibly influenced by their attitude to power-distance and/or openness to change (Hansson et al. 2010). Their orientation towards a combination of value dimensions transcends the traditional separation between collective community and individual Self, making room for the modern (inter- plus intra-oriented) autonomous individual personalities or the “post-modern self” (Hirschhorn 1984) encompassing a distant and distancing form of socially constructed caring for Other.

8 CONSTRUCTION OF SELF

Soft- and hardware ICT-artifact(s) for online game playing are the *means* for communication, hence construction of Self. The systemic design of the specific WoW-artifact prepares for *functional communication*. And the evolving activity system of game playing between peers and strangers constitutes the contents of the communication. Any interactions but those materializing as simple keyboard operations are crucial to development. The players' communications of intentions, ambitions and self-management form a legitimate object of work, activity and learning. This prerequisite enables for analysis of virtual social construction of Self. The purpose of the first *Wowhead* posting is to provide a reference to previous game-playing sessions and thereby to start Twitter activity. A WoW-homepage company entry is disguised as self-transcendent social support. It is linguistically honed by the personal (inclusive) pronoun *we*, suggesting all players belong to one and the same family: "Remember that time we killed Garrosh? Neither do I.. but we can all pretend and watch the latest Legendary AD, right?" In the succeeding categorization bold face refers to the nodes in Fig 1.

8.1 Artifacts and activity

There is a comprehensive **activity system** of WoW-players sharing reflected game-playing experiences. They enjoy self-control, variety of tasks and identity building processes. They tacitly interpret and act out the rules of the game during game playing sessions. The players' learning processes, pool of knowledge and abilities are privately rather than socially constructed – at least at less advanced levels of game playing. At advanced levels, the players' constitute social aggregates of peers exchanging complex modes of co-operation that lead to substantial learning. Implicit rules combined with advanced division of labor characterize the players' locally emerging and socially constructed Self. Their effectiveness as players comes as the result of instrumental tricks of the trade and social accumulation of working knowledge about how-to-do rather than what-to-say. The players' social construction of Self is neither compulsory nor alienating. Quote (16) provides a combined description of **artifact** (A) and activity system (AS) supplied with in a technically advanced language: "News Roundup time! Missing 4.2 Hairstyles, Changes to Holiday Bags and 4.2 Featured Items." There are also examples of "pure" focus on the software (A). First given as (2) a generous offer: "So it's our 5th anniversary this weekend for Wowhead and we're giving away rocket mounts and rocket chickens." Then (9) designed as a boring comment: "Another @perculia guide. If you want to gear in 4.2, from casual to hardcore, look at this." A similar and equally matter-of-fact piece of information on the artifact (A) technicality is (10) "Getting epic pattern drops in our raid--confirmed that they all drop from trash =)". A typical (17) artifact (A) providing instrumental technicality is: "Latest Hotfixes for 4.2 Last updated 6/29". And likewise (18) a comment on the activity system (AS) "STARS exploits for world firsts, a tabard tab is coming possibly, and more. Another news round up is live." Finally (19) instrumental technicality related to the artifact (A) plus a friendly piece of advice/possibly expression of self-enhancement: "Blizzard just hotfixed it so that you can't do heroic modes this week at all as a reaction to STARS' transfers." But there is also a matter of understanding the interrelationship between artifacts (A) and activity system (AS) related to social construction of Self in several quotes: First (3) on social support plus artifact instrumentality: "We've got the answers up to Ask the Devs #10: Damage Dealing!"; then (5) on sharing information about the artifact plus friendly facilitating for other. "Patch 4.2 is today, so here's everything you probably want to know about it"; and (8) on the instrumentality of the artifact plus social support as provided in a question: "Servers are up and... somewhat playable. Anyone else's keyring still there and very buggy?" Finally another (15) artifact-instrumental technicality piece of information combined with social support: "Hotfixes are up, plus reputation calculations and so on. How's 4.2 going for everyone?"

8.2 Social Support

It is a natural goal for human activity systems (AS) defined as a collective subject to expand the **object of work**, i.e. to improve the material-instrument-artifact which develops from the subject's operations, actions and activity. The object of work may be a process like a learning object (Hansson 2010) on interaction, communication and relation-building or an outcome like a tool, knowledge or competence, i.e. winning the game by killing the beast. The players' object of work is on experiencing game playing thrills, mastering the software artifact and managing communicative interactions with peers: "We are interested in process improvement. Now I am facilitating offline meetings. And everybody is talking about the utilities they are using and problem-solving." Game playing experiences is the object of the players' work. In construing social self they take on a facilitator or team worker role

(self-transcendence) rather than management, leadership (self-enhancement). The players' primary **objective** is to have fun by observing, learning, socializing, challenging and achieving results. At times they become motivated by opening, inviting and interacting peers in neighboring exchange systems. By operating their emerging social networks as team working partners rather than rivaling competitors, the players' secondary objectives become motivational. The objectives are realistic and the players feel they can achieve them in similar communities on other platforms. The **outcome** of the game playing activities is primarily collaboration, i.e. coordination, cooperation and co-production of a learning object (Hansson 2010c), i.e. verbal exchanges, game-playing sequences, personal experience and reflection. On this theme, one quote (4) show social support between two players suggesting how and when to play as a collective activity system: "It's a weekend so here's our guide to every rare that matters in WoW by @perculia with a little help from @ashelia" Another example (11) displays self-transcendence enabled by complementary personal traits. "We've been getting TONS of epics from trash--probably a good time for 'trash farming' groups before they get nerfed!" Finally a quote (20) showing social support (SS) facilitated by players prepared to share information and providing a friendly piece of advice: "New expansion rumored to be Vengeance of the Void--most likely a fan's prank, but still worth looking at!"

8.3 Personality

Most of the time, there is an individual **subject** forming an objective, acting on an object, and projecting a favorable outcome. But online players also form a social self (and eventually personality) by participating in an independent self-construal process. Balancing of self-transcendence/self-enhancement significantly influences the players' self-esteem, identity and personality. Initially, however, personality traits build on individual progress, performance and technical competence. Eventually they measure progress by means of collective efficacy (Bandura 1997). The key word to their shift of focus from self enhancement to self-transcendence affects agency (ambition, strategy) and gaming context (interface, collective interactions). Their double focus on subjective personal-oriented growth and objective game-oriented instrumentality relates to the overall game playing activity system (AS). Quote (6) is on immediate, eager and optimistic spontaneity: "Oh hey, 4.2 is now live. We're all patched up and ready to go!" Then (7) there is moral indignation about lack of structure, excessive haste and/or misleading information: "Not that soon, but the patch is downloadable now. In quote (12) the player provides service, indicating personal competence through a balanced personality; building self enhancement and self-transcendence equally: "Screenshot shows it--it's Firelands trash." Quote (13) resembles (7) with a slight irritation in one of the players over an artifact (A) failure: "This guild cauldron flask bug is really annoying--you can't loot flasks half the time =(I hope we can get a hotfix tonight." Finally, (14) an example of social support combined with self transcendence related to collective team subjects: "Yeah, we have a GM working with us right now in the instance to help troubleshoot."

9 DISCUSSION AND CONCLUSIONS

Temporary and shifting networks of players control the game, understood as an artifact and an interactive process, influencing the players' attitudes and behavior. But most importantly, communicative game-playing interactions influence both the players' individual personalities and the outcomes of the 'game'. The virtual world and the real world come together as one in the players' minds. The social self reflects the game-player's process maturity, i.e. their ability to socialize the objective elements of the gaming interface with peers. Thus they mould an independent kind of social self, saying: "We used to follow a scheme, collecting data, preparing roles and strategies. Now we know each other well enough and thus rebuild the game by active experimentation. We play for the sheer fun of it, without guidance or supervision." Some tension remains, however, between inter- and independent behavior. Put differently, individual aspirations to benefit from user value (enjoying oneself whilst playing) clash with the players' need for exchange value (learning to construct a social self – and ultimately personality). So, paradoxically, personality contributes to the forming of several interdependent selves. One difference between real world and virtual interactions is that coercive measures cause drop out from the game without further signs of resistance and/or apathy in individual agents or collectives of players.

By interacting in a blog-like forum the players *implicitly* (unconsciously) frame their personality by a competitive ability to play the game. They *explicitly* (and consciously) frame their personality by posting entries and thus showing how committed they are. Artifacts, social support and personality

hold analytic power for explaining what social media do to people. Leontev's (1978) original work on the interrelationship between the concepts formed a foundation for the analysis. Enerstvedt (1977; 1982) and Engeström (1987) deal with a collective subject in order to explain Leontev's theory, including negotiation, decision-making, planning and mediation for individual learning and collective development. Contemporary followers (Bedny and Harris 2005) eventually modify the original approaches by adding individual tasks to Leontev's model. For this study, written communications on a web-page helped design an analytic framework based on artifacts, social support and personality, thus contributing to a comprehensive trajectory of activity, awareness and personality.

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