SOCIAL SELF IN A VIRTUAL WORLD

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Abstract

Needless to say there are individual and collective influences operating on construction of social self. There are also significant dialectic contradictions at work between constructing and experiencing of social self, be it by individual or collective influences. The human species is able to combine different but related processes for social and instrumental interaction by means of individual input to collective activity. It is, however, a bit of a mystery how the balancing process between activity, consciousness and personality materializes in ICT-contexts, by means of social support and in the shape of virtual agency. This study suggests a way of dealing with the features of collective virtual personality.

Keywords: Activity, consciousness, personality, artifact, social support, dialectics

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 acknowledging each other's existence. Eventually Eve offered Adam an apple from the Tree of Knowledge. By extending their relationship with a gift, her action acquired meaning. Her 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, i.e. spatial, physical and sensory 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. The spread and impact of technology is straightforward. However, there are ethical, cognitive, psychological, social and instrumental issues related to exchange of material, behavior and information. People simply perceive and conceive differently of technologically mediated communications. A comprehensive trajectory of research on ICT contains higher 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 interpret and model the concept.

2   THE CHOSEN THEME

There is a need for a primary theory on 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 in turn constitute a reflection of the physical world. Consciousness makes up a prerequisite for a long standing [1] tradition of reflective thinking. We base our views of Man on an individually constructed consciousness of our-selves. But consciousness is also a social dimension that we share between each other. Therefore social construction comes before – it is a pre-condition for – individual consciousness. Because of this contention it is reasonable to first study different views on human characteristics and eventually what characterizes man.

Activity, consciousness and personality are familiar themes in the social sciences. There are numerous interpretations of Leontev's [2] original contribution to what eventually became cultural-historical activity theory. A significant point of departure for covering his 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 orchestration of things brings on a sense of being caught between a rock and a hard place. *Dialectical relations* [3] lies in construing what it means to be human. Obviously, in focusing on "natural" contradictions between individual and collective influences on construction of social self, a theory for explaining development of activity systems covers a lot. I start off by exploring some interpretations of activity theory, all of which appear in retrospect of the original source in the preceding quote.

3   PROBLEM AND PURPOSE OF RESEARCH

People systemically respond to the dialectics of relation building, agency and inter-dependence. But we need to learn how to conceive of self-construction as a social process. We also need to learn how broad cultural experiences and narrowly defined working life influences shape values, norms, beliefs, attitudes and actions. Ever since Descartes' dualist conception of an anti-social and self-contained self – eventually complemented with Enerstvedt's [4] 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 cultural habits alone influence the modeling of 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 [5] says (s. 423) human nature and individual identity comprises of an "ensemble of social relations." The Marxist perspective on construction of social self, however, merely provides a context for clarifying a method and providing some results that may help identify factors that shape the characteristics and functioning of social self, for example in current online game-playing environments. Here I analyze by theoretical modeling and empirical means the functioning of individual and collective agency in ICT contexts; first by acknowledging the dialectical nature of social interactions; then by identifying the pillars of activity theory - personality in particular; and scrutinizing the implications of an emerging analytical model.

4   STRUCTURING THE STUDY

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

Enerstvedt [6] [7] supplies an early Western interpretation of activity theory, focusing on the historic development of mankind and individual growth. In a comment to Enerstvedt's doctoral thesis, *Man Explicated as Activity*, Lundgren [8] says the model applies equally for all sciences, confusing epistemology with psychology. For the purpose of this study, Enerstvedt's contribution lies in the expression "collective subject".

A later interpretation of Leontev's work is Engeström's [9] systemic approach to justifying shared and collective activity systems for learning and development. In an early work Engeström [10] discusses individual human beings, functioning as innovators, agents or initiators. A contemporary comment [11] 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 still activity. And the main point is to study how people are committed to attaching value to collectively shared goals, systems thinking and transformation of materials, other and self by means of collective activity.

Bedny and Harris' [12] understanding of activity expand the concept, turning it into a primary *unit of analysis* by complementing action(s) with *tasks* rather than *collective work*, e.g. during human-computer-interaction. Finally an interpretation [13]; [14] I adopted for this study. It is different from the preceding contributions as it includes an "I-word", i.e. the author outlines the subject and construction of self as a legitimate *object of study*. So, I replicate Stetsenko's [15] 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 subjects by relating to the dialectic dynamics between material practices, inter-subjectivity and human agency.

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 activity theory [16]; [17]; [18]; [19]; [20]; [21]; [22] operate from perspectives other than individual-collective impact on social self. The authors share the idea that material production of tools, social exchanges between people and individual higher mental functions for regulating exchanges between man and nature is valuable research. The social practice of material production and psychological dynamics among people enable for communities to appear and perform as activity systems. National governments, modern societies and ICT-chat groups, here defined as activity systems, regulate exchanges between citizens, subjects, members at inter-subjective level. Following such a line of argument, implies that intra-individual higher mental processes transform collective practices.

4.1 Resources and challenges

In Leontev's version of activity theory there is a lot of effort invested in explaining higher mental functions that operate on the formation of identity. There are arguments intended at explaining identity by means of the functioning of a collective activity system. And there is some minor mention of the role of the subject in the collective system. But Leontev like Engeström considers and describes the subject as an integral part of an organic system. Also, Engeström's method of studying mental processes related to identity formation covers a variety of aspects of human life: an external source, a subject at work, 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, influencing the impact of their (re)actions and the material outcomes of work. Individual agency "produces" singular actions in peers. Together the perspectives form a structure for analyzing comprehensive, purposeful, object-related and goal-driven activity systems.

The concept of personality allegedly contributes to activity and *visa versa*. Also individual agency provides a starting point to understanding collective development. However, personality is a psychological unit of analysis and by means of the concept we can 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 explain the structure and functioning of activities. The hierarchical build of need-motive-objective-action-activity characterizes how a person forms personality: first as a child experiencing actions and then experiencing social subordination in relation to significant others. It is not until both processes are completed that we become conscious of our identity. Formation of personality thus understood, equals interpretation of meaning and eventually understanding of self. The main thing is to be conscious 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. A typology of personality development includes first abundance of relations; second purposefully arranged "legitimate" motives; third a structure for relating between meaning, understanding and motives.

Early on Engeström [23] realized the crucial impact of ICT on schooling, workplace learning and activity systems, warning against fragmentation and lack of reflective learning. According to Engeström [24], activity theory offers the tools for analyzing the mediating effect of comprehensive activity systems as opposed to singular artifacts like computers. Bedny and Harris complement Engeström's effort by classifying "the computer as a means of work", supplying a proper format for analyzing tasks rather than activity systems. Here, focus is on shared collective activities and singular individual actions equally.

By deploying several interpretations of activity theory as a means for describing construction of social self, structure and agency come together as one in analyses of practical activity. Information society and social science research certainly includes communications [25]; [26] as a significant unit of analysis. Therefore, a trajectory over the emergence of social self starts off with context/structure and agent/agency; then activity, consciousness and personality.

By their very nature theoretical models are copies, reflections and simplifications of reality. In modeling behavior and personality, inherently influential attitudes, feelings and priorities are either hidden or out of order. It is a serious matter for research to consider if the underlying principles of a theoretical model are simplistic or creative, e.g. regarding social construction of self. There are problems related to Engeström's triangular model of human activity. Part of the problem is that the model has an immediate appeal, attracting naïve researchers, but leading in the wrong direction. Another problem is that the model is an excellent guide during the initial stages of research. But for ensuing analysis, the triangular model tends to create confusion through a "trampoline effect". The model is hard to follow during succeeding stages of research when students are supposed to analyze, explain and discuss the data. The main difference between Enerstvedt's and Engeström's interpretations of activity theory is that the former provides a model that covers individual input, processes and outcomes in and by the subject *and* collective influences, processes and outcomes. Engeström, on the other hand, downplays the significance of individual agency, relying on the explanatory power of a "collective subject" as a means to explain human growth through shared efforts and objectives.

The basic unit for de-contextualized human production is similar for individual and collective approaches. But where Engeström specifies exchange, distribution and consumption by means of rules, community and division of labor, Enerstvedt holds that negotiation, decision-making, planning, mediation and different forms of *communication* describe activities for individual learning and collective organizational development.
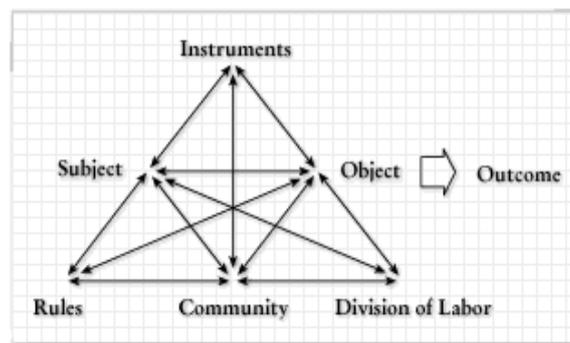

Fig 1. Individual action and collective activity triangles (Engeström 1987)

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

5 CHARACTERIZING COMMUNICATION

ICT-influences on people's ability to manage the contents of interactions shape the characteristics of modern man. I label the contemporary effect of such management virtual personality. It is reasonable to specify some old truths which still apply. We can look upon life in a number of ways, e.g. as limited or limitless. Observed from any such position, there is a need to recognize activity as a key to controlled development. And we need to conceive of ourselves as self-guided, unique and adaptable individuals. We are different from other species as we shape-produce-use nature for immediate needs and for sustainable livelihood. Guided by comprehensive needs we simultaneously transform the world and ourselves. Our physical and spiritual life is connected to other people's lives and we share human qualities, just because we share situated activities.

The form, contents and inner relations of the renowned general activity system (Fig 1) suggest a linear input-process-output model where any original activity regenerates itself as activity (again) in a "culturally more advanced form". The lack of unambiguous separation between the effect of a singular or collective subject on the activity system is obvious. A critical point is that Engeström's (ibid.) outline of human activity is an *instrumental* (classic conditioning) and *systemic* model rather than – as claimed – a developmentally *cyclical* and *holistic* illustration of life-forming processes. Co-ordination, co-operation and co-production are interrelated acts, because productive activity has social character. Everybody would benefit if we only knew how to share material and spiritual resources. Social structures, organizations and collectives of people as well as individual ambitions bear the signs of a

double relationship; from one perspective we are programmed to survive as singular mammals and from another perspective we thrive on social relations. Regardless of how we assess our contributions to humanity, we mould our social selves by means of shared, structured and collective activity. We are a social species and the human spirit, humanity or being human materializes as a result of the impact of an individual's totality of 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, 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 global internet communities. Hence [27], we need to be able to acknowledge each other as individuals too, because: "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 sharing, we deploy language as a practical tool and a psychological instrument for self and others. By experiencing we learn and become conscious of the world and ourselves. The need for recognition through consciousness emerges from socializing with other people in shared activities.

According to Fig 1 asymmetric subject-object relations play a crucial role in human interactions. It is hard to define the meaning of object of research, objective and outcome; i.e. developmental change in the object vs. in the characteristics of an activity, in this case game playing on the Internet. But it is easy to equal individual work on material objects (computer soft- and hardware) 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 a subject. Still, we transform the world by living, committing ourselves, working and enjoying life. The contents of our successful commitment or depressing failures change the values, attitudes and beliefs that characterize man. Individual operations and actions plus collective communication transform the physical world. They also transform the agent's characteristics and the culture where the activities happen. Any form of work is communication, i.e. a relation-building process. In order to survive, feed, thrive and multiply, we employ muscular power in order to transform the world so that we can produce-consume-share-develop material and human resources. During this longitudinal process of material combined with communicative transformation we develop as a human species.

Agency is the catalyst to development in social systems. But it is an illusion to think it would be possible to measure, define and analyze a "collective subject" acting on objects and people. Still, there has to be some similarity, relatedness or family-belonging between the compared items, i.e. individual and collective subject. Analyzing differences between apples (fruit) and cars (machinery) is a futile business compared to studying the difference between apples and oranges (fruit). Based on this contention there is a basic difference between for example man and animal as people relate to nature by working, transforming, producing, distributing and consuming material - and spiritual - resources in qualitatively more developed ways than animals do. Contrary to animals we can tell the difference between instinct, purposeful pursuit of goals and consciousness of objectives. In short, biological instinct in animals is different from conscious motives in man. As humans, we are conscious of relations between means, objectives and results. Also, we are less conscious of the process of building social self than we are of the result of that process, i.e. personality. Poor understanding of the process stems from the fact that operation, action and activity are concrete social phenomena compared to reflection, learning and memory. And so, there are characteristics which constitute the foundations of a comprehensive theory of what describes 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. The characteristics are reflection, learning and memory. Still, there is a need to study the what-result and the how-process of socially constructed self, i.e. learning how consciousness influences/is influenced (by) society, upbringing plus individual motives. As a species man has developed over millions of years and as individuals we develop over the span of a lifetime. Here it is hard to cover both species-typical qualities and individual growth processes. Description of human characteristics and individual agency meet in an analysis of how players in an online game (World of Warcraft) construct and maintain a collective virtual personality.

6 ALTERNATIVE MODEL

There is [28] a model for explaining 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 social self, ultimately influencing, the features of people's rather stable personality. Appropriation of *artifacts* like software characterizes activity systems. Consciousness of *social support* is a prerequisite for learning in virtual (vl) and real life (irl) contexts. Establishing, strengthening and developing *personality* defined through construction of social self is a legitimate objective of analysis. The suggested transformations enable for analyzing interrelated ICT-feedback loops, e.g. on social construction, digital competence and learning. Social support covers the subject's consciousness of relation building. Personality covers cognitive, affective and psychological relations within and between subjects. Fig 2. Is a three-step learning model on (appropriation of) *artifact, social support* (influencing type of) and (affecting qualities of) *personality.*

Personality	choosing…	**Artifact**	providing…	**Soc. Support**
Soc. Support	affecting…	**Personality**	changing…	**Artifact**
Artifact	enabling…	**Soc. Support**	influencing…	**Personality**

Fig 2. Initiating, becoming and being a contributor personality

Modeling feedback loops on learning and influencing personality enables for exploration of how (i) ongoing mental initiation and social operation processes (ii) lead to becoming and maintaining of personality and (iii) influencing learning in and among players in a web-based forum.

7 THE DATA

A WoW-homepage http://www.wowheadnews.com/ displays the players' interactions outside the game. It is a hybrid-activity system compared to the actual game-playing activity. Written exchanges and relations in the blog-like window differs considerably from the WoW-players' game-playing passages, rites, moves and behavior. Homepage data consists of player entries, illustrating concerns, interests and experiences. Basically they talk about the effective-fluent running of the game, about quests, issues and news. The data indirectly indicate the players' learning, entertaining-controlling-winning activity. From 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 they have little room for social bonding. The internal dynamics of the chronologically posted entries form a mix of information on Social support (Ss) and Artifact (A). Towards the end of the exchanges, the chain of entries follows a series of alternating expressions on Personality (P) and Artifact (A), a normal trend towards personal communication as time goes by.

7.1 WoW-personality

On pursuing the legitimacy of considering, arguing and implying that self is a social construct, i.e. the result of socializing, it is easy to argue that e.g. rural farmers and employees during industrialization in the old days or online personalities today present themselves as a context-dependent result of division of labor, rules and regulations plus expansive interaction and learning in a community of peers.

Young Internet user personalities cover unique and independent characteristics. It is an intriguing challenge to learn if - in playing games like *World of Warcraft* - 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 (irl) component to the (vl) 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 social progress of their peers, except for learning, playing or winning the game. Shared norms, values, attitudes *and* actions related to game playing seem to promote social construction of each player's self. On the other hand, and according to Durkheim [29], the mechanistic rules and regulations of online game playing leave little room for socializing and development of collective virtual self.

With a growing realization in each player about the necessity to interact, the social character of game playing offers an opportunity. Independent self would be an ideal outcome of game-playing. This will happen if the player were a constructive process manager. Regardless of context, time, instrument or division of labor, online players socialize self as lived reality and/or lived experience. But there is a need to go beyond a shared agreement about interdependence between players as a mediating concept, e.g. self-control, for understanding construction, perception and appreciation of self. The players withhold a spontaneous professional orientation towards each other. Paradoxically, in doing so they promote socially constructed independence. That is, they manage to preserve autonomy even though they experience growing interdependence through team working.

The effect of communication, interaction and relation building is a productive Internet culture promoting certain values and value directions. Traditionally interdependence and collectivism (*self-transcendence*) [30] develop as one. Independence and individualism (*self-enhancement*) [30] come together as synonymous processes. There is another cultural dimension however, confusing relations between individual agency versus collective structure. Online cultures like WoW differentiate between low and high power-distance between interacting agents and followers. Functional online communities are rather on the collective than on the individual side of things. Contrary to other online communities they are also low on power distance. And it would be a mistake to characterize online players as individual *or* collective selves. The users' prevailing selves hold an individualistic *and* a collective dimension, possibly influenced by their attitude to power-distance and/or openness to change [30]. Their orientation towards a combination of value dimensions transcends the traditional separation between collective community and individual self, making room for inter- plus intra-oriented personalities, virtual agency or "post-modern self" [31] encompassing a distant and distancing form of socially constructed and autonomous caring for other.

8 CONSTRUCTION OF SELF

Soft- and hardware artifacts for online game playing are the *means* of communication, consequently construction of self. The systemic design of the specific WoW-artifact prepares for *functional communication*. And the evolving activity system of game playing between agents, peers and strangers constitutes the contents of the communication. Interactions materializing as simple keyboard operations are crucial to development. The players' communications of intentions, acts and meanings form a legitimate object of research, i.e. for studying work, activity and learning. The approach enables for analysis of virtual social construction of self. The purpose of the first *Wowhead* posting is obviously to provide a reference to previous game-playing sessions and initiate a laconic Twitter-like activity. The company disguised their first entry as self-transcendent social support, linguistically honed by the personal (inclusive) pronoun *we,* suggesting all players belong to one big family: "Remember that time we killed Garrosh? Neither do I.. but we can all pretend and watch the latest Legendary AD, right?" The succeeding sections refer Enerstvedt's ideas about collective subject, to Leontev's trajectory of activity, consciousness and personality, to Bedny and Harris' focus on tasks, but first and foremost to Fig 1 and Fig 2 by derived analytical concepts.

8.1 Activity and artifacts

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 online 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' form social aggregates of peers exchanging complex modes of co-operation that lead to substantial learning. Implicit rules combined with 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 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 technically advanced language: "News Roundup time! Missing 4.2 Hairstyles, Changes to Holiday Bags and 4.2 Featured Items." There are examples of "pure" focus on the software (A) given as (2) an offer: "So it's our 5th anniversary this weekend for Wowhead and we're giving away rocket mounts and rocket chickens." Then (9) focus on software designed as a boring comment: "Another @perculia guide. If you want to gear in 4.2, from casual to hardcore, look at this." An equally matter-of-fact piece of information on artifact (A) technicality is (10) "Getting epic

pattern drops in our raid--confirmed that they all drop from trash =)". A typical quote 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." Quote (19) illustrates instrumental technicality related to the artifact (A) plus a piece of advice, possibly expressing self-enhancement: "Blizzard just hotfixed it so that you can't do heroic modes this week at all as a reaction to STARS' transfers." There is more to the game, i.e. understanding the interrelationship between artifacts (A) and activity system (AS) related to social construction of self: First a quote (3) on social support (Ss) plus artifact (A) instrumentality: "We've got the answers up to Ask the Devs #10: Damage Dealing!"; then (5) on sharing information 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 (A) plus social support (Ss): "Servers are up and... somewhat playable. Anyone else's keyring still there and very buggy?" Quote (15) is another artifact (A) instrumental piece of advice combined with social support (Ss): "Hotfixes are up, plus reputation calcuations and so on. How's 4.2 going for everyone?"

8.2 Objective and outcome

It is a natural goal for human activity systems 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 on interaction, communication and relation-building or an outcome like a tool, knowledge or competence, i.e. winning WoW by killing a 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 a managerial leadership role (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. The **outcome** of the game playing activities is primarily collaboration, i.e. coordination, cooperation and co-production of a learning object, i.e. verbal exchanges, game-playing sequences, personal experience and reflection. On this theme, one quote (4) show social support (Ss) 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!" Quote (20) show social support (Ss) facilitated by players sharing information and providing a 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 Subject, agency and personality

Most of the time, there is a **subject** forming an objective, acting on an object, and projecting a favorable outcome. WoW players also form a social self (and eventually personality) by participating in an independent self-construal process. Balancing of self-transcendence/self-enhancement influences the players' self-esteem, identity and personality. Initially, however, personality traits build on individual progress, performance and technical competence. Eventually the players measure progress by means of collective efficacy (Bandura 1997). The key word to their shift of focus from self-enhancement to self-transcendence affects their sense of agency (ambition, strategy) and the gaming context (interface, collective interactions). The players' double focus on subjective personal-oriented growth and structured 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 entry; building self enhancement and self-transcendence equally: "Screenshot shows it--it's Firelands trash." Quote (13) resembles quote (7) with a slight irritation in one of the players over 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." Quote (14) provides social support (Ss) combined with self-transcendence related to a collective subject: "Yeah, we have a GM working with us right now in the instance to help troubleshoot."

9 DISCUSSION AND CONCLUSIONS

Shifting networks of players control the game, understood as an artifact and an interactive process, influencing the players' communication, attitude and behavior. But most importantly, game-playing interactions influence both the players' personalities and the outcomes of the 'game'. The virtual world and the real world come together as one in the players' minds. Social self reflects the game-players' process maturity, i.e. their ability to socialize by developing the objective elements of the gaming interface. 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 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 social self). So, paradoxically, personality contributes to the forming of several interdependent selves. One exception apart from the difference between irl- and vl-interactions would be that self-enhancing coercive measures cause drop out from the game without further self-transcending resistance and/or apathy in individual agents or collective subjects.

By interacting in a blog 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, showing dedication. Artifacts, social support and personality hold analytic power for explaining what social media do to people. Leontev's original work on the interrelationship between the concepts formed a foundation for the analysis. Enerstvedt and Engeström add collective subject to the equation, thus completing Leontev's theory. They include negotiation, decision-making, planning and mediation for individual learning and collective development. Bedny and Harris eventually modify the original approaches by adding individual tasks to their predecessors' models. For this study, Stetsenko's focus on material production, inter-subjective communication and agency-subjectivity helped design an analytic framework based on artifacts, social support and activity system, thus contributing to a comprehensive trajectory of activity, awareness and personality.

Acknowledgement

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