Este artigo, disponível em <u>http://www.nied.unicamp.br/oea</u>, traz reflexões acerca da utilização do Mundo Virtual Cibercidade-Sitecria/LEC-UFRGS/OEA-99/2000 pela comunidade de professores, alunos e pesquisadores participantes do Projeto OEA 2000 'Rede Telemática para Formação de Educadores: Implantação da Informática na Educação e de Mudanças nas Escolas de Países da América Latina". Artigo publicado nos anais de **ED-MEDIA 2001--World Conference on Educational Multimedia, Hypermedia & Telecommunications**, (Tampere, Finlândia, 2001.)

# A VIRTUAL COMMUNITY UNDER CONSTRUCTION: BEGINNING OF AN ENCHANTMENT

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**Abstract:** In this paper we bring up some thoughts over a virtual environment generated in the Virtual World (Cibercidade-Sitecria/LEC-UFRGS/OEA) - Community coupling based on the epistemology of enchantment, where each participant (teacher, student and researcher) is an observer, an investigator, a learner in charge of constituting this space. Our analyses are based on the experience of two groups of students and teachers at the elementary level from public schools in Porto Alegre/RS and Novo Hamburgo/RS. The initial data collected indicate the constitution of a space of distinction by a living together. We "photographed" two moments where we analysed different manners of acting/"dwelling" (in) this space so as to create these distinctions. This process of self-organization makes us think of the emergence of a hybrid phenomenon, of the creation of an artifice a blend of human nature, culture and technique.

In fairy tales, the characters may be animals, plants and other inanimate beings, they have voice, will, attitude, desire... Enchanting has to do with this, to give voice and action to the object. It is the eyes of the observer that considers the object a live entity, a dynamic one, one that transforms and is transformed by and in the interaction.

For the utter dreamer, nature is only the dream that may more attentively be studied - the dream that lasts enough so we find rules, laws, that perhaps each other person dreams is ours, or the world of our inner dreams has people dream ours, or the world of our inner dreams has, had we time and abilities for this science of /shadow/. Nature is not real anymore; it is more vivid than dreams. Nature is the dream that all souls dream together. (Pessoa, 1999)

But how would be the building of this dream, this enchantment in a virtual world of Internet? We invite the reader to travel with us in this adventure of thoughts and questioning from the establishment of a community...

Once upon a time...

## The Virtual World: A Scenery To Be Enchanted

The virtual worlds, as informational devices, have a reticular and fluid space, in which the user is considered an explorer who will inhabit that environment. It could be the explorer him/herself, as an navigator or his/her representative, an avatar who obeys his/her commands. It is "a digital reserve of sensorial and informatioanl virtualities which are updated only in the interaction with human beings". (Levy, 1999).

Depending on the devices employed, this updating may be more or less interactive, unpredictable, leaving a variable share to the initiatives of those who immerse in it. The virtual worlds can be enriched if inhabited collectively. It becomes, in this case, a meeting point and a communication means between its participants. The virtual world of which we speak here is the Cibercidade-Sitecria (or, in English, Cybercity-Sitecria) - http://oea.psico.ufrgs.br/sitecria.

Initially, this space was created to facilitate the interaction for the active learning of students. Its creation is based on the *fractalized* idea, in which the teacher being trained via telematics, who is developing shared projects, taking part on the construction of the virtual community with his/her peers, also watches the students in the same process of cooperative learning. Consequently, the teacher can observe, apply, experience, reflect the various forms of interaction and building of knowledge in the development of cooperative projects in Distance Learning - DL - with other students and teachers, thus improving his/her development and contributing to the building of students' knowledge.

Its layout has been developed on a metaphor: the city. Initially, it is necessary that the user register, accepting to be a dweller of Cibercidade-Sitecria and soon the user is invited to help us unveil a "Great Mistery". This is the way we found to create in the user the need to interact in this space, an initial challenge.

This virtual world contains some "social institutions": the city hall, a post office, the assembly hall, a news/communications site, an art studio, a sports area and a bookstore. These sub-environments are mainly based on the users' interaction, i.e., they are updated, rebuilt, reconfigurated at each interaction. Each inhabitant receives a persoanl mailbox, a notebook for personal notes and a space for publishing anything. Initially this set of resources was named house-kit, as it was our plan to offer the possibility that each participant build his/her own "house" homepage).



Fig. 1: The "doorway" of the Sitecria

In that manner, the "starters"<sup>1</sup> tried to offer the most interactive possibilities, in a fun and enjoyable way, based on three pillars:

- a *design* that gives students the possibility of feeling invited to take part on the building of a virtual community, exchanging experiences and giving priority to interactions which favor relationship cooperation and autonomy in them;

- systematic sinchronous communications sites such as IRC and ICQ and assinchronous such as e-mail, forms and discussion lists.

 $<sup>^{1}</sup>$  We used, 'starters' or 'world engineers' from Levy (1999) referring to the developers of Cyibercity-Sitecria in the sense of not being the authors of a finished work, but of a world that is in essence, unfinished.

- sites/moments in which students may participate on challenges made up by other students, teachers and researchers as well as building them themselves;

It might be said that Cybercity-Sitecria is a kind of 'skin', a scenery that will have its dyanmics maanged by the community itself. What dyanmics can emerge from the interactions of the participants with this virtual world and between them? What is missing for this world to be enchanted and become an environment upon which a community can be built? The participants<sup>2</sup> and their interactions, of course!

## Bewitching

The epistemology of enchantement (Chrislieb, 1994) seems to be a trail to travel over in this study: "once the object is considered to be able to have its own qualities, and it is allowed that it behaves according to its will, then it is possible to interact with it (...) What the subject did was to bewitch the object: the subject put a spell on people, animals and things around so that

they are converted into live entities. "(Chrislieb in: Montiero, 1994, pg. 25)

In that manner, the objectivity necessarily is secondary. It means that in the experience, we cannot distinguish between illusion and perception. The experience is a condition characteristic of the observer and this is the reason why a group of observers cannot make such distinction either (Maturaan, 1999). A single reality is not considered, but the possibility of several distinctive realities and distinguished by the view/action of the observer. If we consider each participant an observer, a curious investigator of the "world's misteries", a scientific researcher, we could say that each of them is also responsible for the enchantment. All - teachers, students, researchers - are learners.

Thus, the object is alive, dynamic and collective, it stops being MINE (the researchers') and becomes OURS (the collective of participants of the community). It is a digital virtual community being constituted. A community is alive and there is no way to study it without somehow modifying it.

Even in the making of science, all that happens is produced by the observer in his/her praxis of living as primary condition, and any explaantion results secondary. Every explanation - including the scientific one - is a generative mechanism that originates the experience by explaining with the use of other experiences different from that which is being explained (Maturana, 1999).

"(...) A thorough analysis shows that science does no know 'bare facts', as the facts that we acknowledge are already seen from a certain point of view, being, as a consequence, essentially ideative. If that is so, science history will be so complex, chaotic, permeated by mistakes and diverse as much as the ideas within it (...) Each person will read the words in his/her own way and according to the tradition to which this person is affiliated" (Feyerabend, 1989, pg.34)

Making science, as living, is a continuous process of transformation of the researched object and of the researcher him/herself. It is a constant process of deconstructing oneself, as if going back to childhood, in which it is necessary to confess our ignorance, to start studying science from its very beginning, its genesis. It is also a process of enchantment, as a life experience and passioante one.

" [a scientist] began as a child, as childhood comes before adulthood in every men, including the primitive. As for knowing what the scientist takes from his/her first years, it is not a collection of innate ideas, once there are trials and errors in both cases, but a constructive power, and among us someone came up and said that a physicist of genius is a man who knew how to preserve the creativity proper of his childhood instead of losing it at school " (Piaget & Garcia, 1982, pg. 64)

It is in this trial of deconstructing a perspective to build another that we see the need of this enchantment which allows a dialogue at the same moment when the object makes itself come to existence. And it appears that there is no other way for us. We can only build it as the creative process is occurring, because it is in the means where we are moving:

"Facing the individual's reality and facing the reality of systemic institutions, it appears then a reality that is not within the individuals and institutions... not even in groups, but it is embodied in a third nature, not quantifiable and impeccably real, made of communication... This is the third reality, the one of the means, of the intersubjectivity" (Chrislieb in: Montiero, 1994, pg.51)

<sup>&</sup>lt;sup>2</sup> Participants in the sense given by Levy (1999) for the 'explorers' of the virtual world, that will not just build the viable, multiple, unexpected sense, but also the order of operation and the form of appropriation.

## The Enchantment: Beginning of a Self-Organization

According to our conception of virtual environment, it is only with the very interactions of participants with the virtual world and between each other that it is possible that a dynamics of functioning emerges.

This virtual (digital) environment builds itself in the interaction between subjects-subjects and subjectsobjects, it changes as interactions occur, as the participants engage on cognitive activity. It is updated at every action/operation and its virtuality is changed at every questioning. In the same manner, the subjects are transformed in/by the interaction. There are no strict limits between what is means, object and subject. A virtual environment under the constructivist perspective, it is constituted mainly by the relations that occur in it. It is in living together, through the interactions, questionings, actions/operations that this world is being built/inhabited. *It is a space of distinction by a living together of a community*.

This collective object, enchanted, will only remain enchanted while we, observers, consider it to be in movement, what Maturana names drift. It means that every moment is a different moment, that will be determined by the history of interactions that occur, but, at the same time, always being updated in its structures. At each moment, one happening, one experience.

The virtual community constitutes itself in the gathering around centers of common interests, about the cooperative learning, about open processes of collaboration. (Shaw, 1995; Levy, 1999). The construction of social ties occurs much more over affinities of interests, knowledge, mutual projects, in a cooperation or exchange process than over relations or geographical proximity, institutional affiliations or power relations ( which does not mean that they do not exist).

In this sense, the process of constituting virtual communities can give us elements to reflect about how our social relations in and out of the cyberspace have been changed and change intellectual technologies.

" virtual communities perform de facto a true updating ( in the sense of creation of an effective contact) of human groups that were only potentials before the appearance of the cyberspace. The expression current community would be, essentially, much more adequate to describe the phenomena of collective communication in the cyberspace than virtual community" (Levy, 1999, pg 130)

From this perspective, the community becomes active in its own development process, and it is possible to say that it develops its own dyanmics of functioning, it organizes itself. This Collective Intelligence is updated more as a problems section than as a solution, more as a "way of accomplishment of mankind that the universal digital network fortunately favors, without us knowing a priori to which direction and to which results the organizations that put their intellectual resources in synergy tend to". (Levy, 1999)

This participants-virtual world imbrication makes us ask, which are the borders between subjects and objects, human and techniques? Would it be, then, the appearance of a hybrid phenomenon, the creation of an artifice, mix of human nature (?), culture and technique, as tells us Pedro (1998).

Let us see some "photographs", of moments that can make us think over the possibilities of "dwelling"<sup>3</sup> the Cybercidade-Sitecria, of constituting the community and, who knows, think of the construction of an artifice?

### A Moment: A Way To Occupy Space

Our explorers are part of a group of students of a public municipal school of Porto Alegre/RS, with ages ranging between 10 and 14 years old.

As soon as they accessed Cybercidade-Sitecria, these participants tried to occupy the space in a way that had not been thought of (at least in the beginning of the process) by the starters of this virtual world.

We could say that most of the children were more worried in "occupying " the space verifying that subenvironments were not being offered and they considered important in a city: "Hey... there are no trees in this town!"; "That's true... it's missing a soccer field for us to play"; " There's no cemetery either. Where are people buried?"

Henceforth, each one started planning how to implement his/her own sub-environment.

It was at this point that they realized that cemeteries, garages, video rental places in the cyberspace cannot be the same as in the real world.

<sup>&</sup>lt;sup>3</sup> We understand dwelling here in the sense of "feeling at home", to be at ease, to appropriate space, in opposition to the notion of settling down, to take root somewhere.



Fig. 2: Cemetery - Environment under construction by inhabitants-students

Another quesiton then arose: building spaces that could be interesting and useful for the other classmates. They started looking for solutions to these questions: "I can put one of those to fill up [forms], asking what the problem of his car is. Then, I analyse its problem, and I answer how to fix it... and then I send it back!"; "We could make a park with many trees and with information on each one. Then people will know how to plant, what kind of climate it likes, if it likes water, things like that..." and so on.

This way of interacting with Cibercidade-Sitecria established a dynamics that disturbed and "forced" the environment to change, as the proposed initial challenges in each sub-environment, at least at this moment, were not the focus of main interest of these explorers.

Proposing new public, collective areas was not in the initial proposal. But it became the guidance of this virtual world, together with the interaction between inhabitants. The individual - virtual world coupling occurred in this manner at this moment with these participants. Would we be able to say that this newly constituted system points to a clue of a self-organization process?

And how was this disturbance taken? Each inhabitant now had the possibility of proposing his/her way of living in the virtual world - his/her project on Cibercidade-Sitecria - and to contribute that from this environment emerged a community. The initial conception of "house-kit" was considered individualistic and the option was the living collectively.

In order to make the environment adapt itself to the proposal of the participants, some changes and transformations were made. Four other sites were created: the Moon Corner, the Space Corner, the Mountain Corner and the Ocean Corner. These sites are available so the explorers can choose where they want to develop their projects.

So, as interactions occur, social relations that change and are changed by the virtual world appear. It is in this hybridization that we see the possibility of indicating an area for living together.

#### Another Moment: How To Interact

We see this space as a domain of differentiations created from the experiences that occur so that the community constitutes itself and changes its own space.

In that manner, in another moment, another group of participants chose to use the interaction sites of the Cibercidade-Sitecria. In this group, there were students and teachers of a municipal public school of Novo Hamburgo/RS, aged between 8 and 11.

These participants are still, most of them, oriented by their domains of daily habits. It means that the messages exchanged are related to their daily life and is directed to other inhabitants who they already know physically (party invitations, poetries and jokes about physical characteristics of each other, etc.)

"Hi, you , Taliba, skinny guy, if you don't eat you dizapear, allright?"

"Baby please send this message to Taliba. Hey taliba you are too ugly, what about a plastic surgery? "little girl, you are really cool" A POEM! I DON'T GIVE YOU A ROSE BECAUSE IT'S FULL OF THORNS BUT I GIVE YOU MY HEART WHICH IS FILLED WITH LOVE"

The community is delimiting their space through this construction and the interactions between its participants. In this "photograph" of the dynamics, differentiations have not yet been made. When we talk about differentiations, we refer to the distinctions that will be built with relation to the cyberspace in general and related to the other domains of existence that each participant is part of.

In this case, the domain of daily life existence still is the predominant regarding the life in the Cybercity. The individual dimension still prevails, there is no notion of insertion in a collective of participants: a great number of messages have explicitly a private notion and have an idea that nobody else has access besides the receiver him/herself. It is clear this dynamics for the site of preferential interaction: the Post Office, as there is still the possibility of sending persoanl messages.

## The Enchanted World

The world will be enchanted whenever it is possible to update it. Whenever it is updated, new differentiations will be made and the community constitutes its space of living together. We could even say that a new domain is created for its participants, a digital domain. The "digital life" does not eliminate the other domains of existence. Very much on the contrary, it can enlarge and change its ways of occupying the non-digital world... and vice-versa. How to analyse, for instance, the different moments in the cognitive development or the different ages of the participants? Are they aspects of the domain of existence that interfere in the way that each one bewitches the virtual world in which they interact?

This process of self-organization by which the community builds itself is *autopoièsis* in the sense that it is because of its own inner dynamics that the domain will be built; it is a system that produces itself.

In this sense, one of the ideas that permeates "behind" all our thoughts is that any knowledge is built from the interaction of the subjects with the objects (whatever it is, "things" or people), and both will be built from that point. It is a process that happens in this intergame of the subjective as the objective reality. And, we could even say, an artifice is created, because it is a result and resulting of a process of hybridization of subjects/objects, of the human/technical.

With this epistemologic concept, its construction has to be dyanmic and in process. The end here cannot be "... and they lived happily ever after". Like nature dreamt by Fernando Pessoa, though, every moment is time for virtual, digital, all kinds of enchantments. What is important is to experience and share this experience... it is to create environments for living together.

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