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# Strategic Identities in Cyberspace

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## ABSTRACT

This paper aims at describing, according to the recent advances in social psychology and Computer Mediated Communication, how identities are perceived and constructed in cyberspace. All interactions analyzed in this study were performed within "Euroland," a collaborative virtual environment. The interacting community was composed of students, teachers, and researchers working on a transnational educational project. Practices and dialogues within Euroland are analyzed using an ethnographic and conversational method. A sample of discourses and actions that occurred during 8 months of time, selected according to the research aims, was analyzed. During online connections, users were personified by an "Avatar." Avatars are able to walk, fly, and look around the virtual world. They are also able to build and manipulate three-dimensional objects, perform virtual actions, and chat with other connected users. Results showed that "Eurolanders" showed and constructed their identities using strategic "positioning" depending on the interactive situation. Identities are thus dynamic and strongly related to the context, created and constantly recreated by the users. It is concluded that specific features offered by the Euroland environment are exploited by the users as resources to play with, while moving from one strategic positioning to another. Cyber identities involve resources given by specific technological tools and by community. The cyber-identity construction process seems to be highly congruent to the advances in the dialogical perspective in psychology, where identities are considered in their conceptualizations as multiple, "multivoiced," "positioned," and context-dependent.

## INTRODUCTION

WHEN WE THINK ABOUT CYBERSPACE our minds immediately approach something that is not supposed to be physical at all, far from the real world and everyday life. Within a cyberspace environment, a range of actions is likely to occur at different levels of complexity. For instance, participants within the environment can upload and download information, and they can develop relationships and inter-

act socially with other users at a distance. Given this range, each activity relies on different cognitive, social, and communication strategies depending upon the interaction between the electronic environment features, its context of use, the general aims, and the users identity.<sup>1</sup>

The main focus of this paper is to examine the relationship between the context created by a specific virtual community and the identities shown and used by the participants. Identity construction in cyberspace is directly related to

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the nature of the interactions and opportunities offered within the environment. Furthermore, the integration of text-based (i.e., chat) and visual communication (i.e., Avatars\*) seems to shape individual identities in ways that may not occur if either media was present by itself.

### WHICH DIMENSIONS FOR CYBER IDENTITIES?

Recent advances in social psychology highlight the relevance of the user's identity within cyberspace environments. An important focus on the role of Internet-mediated construction on the development of identity has been made. The literature<sup>2,3</sup> distinguishes three basic dimensions that can account for the construction of identity within cyberspace. The first dimension is anonymity versus identification of the users. In most cyberspace environments, depending on their nature, users can remain anonymous or they can be immediately recognized. Second, these environments can offer synchronous or asynchronous communication. In addition, both textual and visual information can be available. In most virtual environments these three dimensions are hybrid, allowing for different degrees of anonymity, combinations of synchronous and asynchronous communication, and different amounts of visual and textual data.

More recently, cyberspace has become populated by environments called Collaborative Virtual Environments (CVEs). CVEs are particular environments fostering communication and interaction among *social actors* rather than the *user-computer* interaction. This shift implies a stronger reliance on the relevance of the context within which the interaction is played and therefore the context can be considered as a fourth dimension to be added to the three already mentioned. By context is meant neither

the technical environment nor the physical presence of the users, but rather a conceptual essence where participants have an interlocutory space to build socially shared meanings.<sup>4</sup> The description of identity construction by the users needs to be grounded on the consideration of all the resources that can be used within the context to shape different aspects of the self (real or not) that can be shown.

#### *Integrating text-based and visual communication*

Even when sophisticated visual representation is available, such as the user's personification through Avatars, CVEs are still strongly dependent on text-based communication. For this reason interacting in cyberspace is considered as a "rarefied"<sup>4</sup> form of communication, due to the small channels that users can adopt to convey their messages. Anyway, considering cyberspace in comparison to real-life interaction could be a false way to look at the processes that are run in it. Cyberspace is an interacting area where people act in specific ways, which are strongly dependent both on the tool they use and on the way they negotiate to enhance tools' properties to interact in a more effective way. What is specific, then, of cyberspace, is the mediation action of the tools in improving connectivity between people and in offering new interacting resources to participants. The "Virtual Reality" label, which has been given to three-dimensional desktop CVEs, connects two basic concepts: realism and virtuality. The first deals with the similarities that the environment shows with direct experience, the second remembers that the experience is not placed in the real world. But if we put a real context behind the tools (i.e., considering a community working with these tools to interact at a distance), we can transpose those terms to indicate that the interaction is real as it deals with concrete tasks and discussions on relevant topics that have an output in real life. And virtuality there should be addressed to the fact that that specific community could not be possible in real world, due to the distance or to social boundaries like organizational roles, for example. However, whenever cyberspace is used within a real and meaningful context, the boundaries between real and virtual are

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\*The word Avatar comes from Indian culture and means "reincarnation." The reference is to a God called Visnú who was able to incarnate himself through several different faces. On the Internet the word Avatar is used to describe the "object" representing the user and it can be a two or three-dimensional photo, design, picture, or animation.

blurred. Furthermore, activities in cyberspace produce outputs for real life and vice versa. In this sense, CVEs can activate social processes which could not be possible when interactions are exclusively face to face. This has an impact, however, on how identities are built and used in virtual communities.

New dimensions are then salient when looking at the relationship between cyberspace and identity construction. This paper will describe the integration of both communication formats (i.e., visual information offered by the Avatars and the text-based chat) during the social construction of cyberidentities. CVEs allow users to construct their identity in the following ways: (1) by choosing a nickname, that can be very different from their real name; (2) by wearing different simulacra of possible embodiment (the Avatars); and (3) by talking, discussing, and negotiating about the identity that users want to show in real time.

The use of nicknames is widespread in several cyberspace environments, and it is a relevant feature of most cyberidentities. Users can either maintain their real names or they can invent new names, usually in accordance with the trends of the cyber community to which they belong. The choice of a nickname is the first strategic move that the users do inside the community since it expresses some characteristics of the self (even if unreal).

The Avatars are the innovative features of these systems and they work as simulacra of the users connected. Being personified by an Avatar while chatting to other users implies diverse effects. The Avatar can be seen as emphasizing some visual aspects, or hiding others, similar to a mask worn during a party. Many different types of Avatars are available for the users to choose in cyber communities,<sup>5</sup> and they seem to facilitate and motivate the interaction among users as well as the user's engagement with the virtual world.<sup>6</sup> Some scholars<sup>7</sup> argue that as the Avatar begins to resemble human communication behaviors, the interactions will also become more effective. In this way, users will be able to dedicate more effort to their self-expression as their Avatar will more closely resemble their own bodily movement and gesture. The body is our primordial communication medium,<sup>8</sup> and since

communication tools are extensions of our sensorial system,<sup>9</sup> the Avatars should provide a further communication channel to express the self, both in terms of body and identity. However, in the case that the virtual reality remains desktop based and no sensorial immersion is envisioned, the text-based chat will still offer an important means to express and negotiate identities.

Most of the CVEs are based on synchronous interactions where identities can be negotiated in real time. This fosters the dynamic perception of the identities, that can be rediscussed at any moment and used as negotiating resources during the interaction in order to fit specific aims of the participants.<sup>10</sup>

Do specific features of cyberspace impact the construction of the identity? And, if so, in what ways? These are questions that are still under study. Some researchers<sup>11</sup> think that since the usual *social cues* (such as gender, age, and race) are not visible in cyberspace, then more democratic environments are possible. Others<sup>12</sup> claim that social cues are still available in cyberspace; rather, they are visible only at the symbolic level and are strongly dependent on the social context. From a dialogical point of view, as will be explained later, the distance from cyber identities to real life ones is not so relevant. If identities are considered as a resource used to reach certain goals during the interaction, cyber identities are based on context-specific features made relevant by the participants in that specific moment.

In the following section we will clarify what it is meant by strategic identities and elaborate on these issues from a dialogical perspective.

### *Strategic identities*

Environments for collaborative work (Computer Supported Collaborative Work—CSCW) and collaborative learning (Computer Supported Collaborative Learning—CSCL) open the door to new identity experiences because they give the opportunity to carry topics and tasks at a distance and by the mediation of more and more sophisticated cyberspaces. From a psychosocial point of view, entering a new virtual community where the real characteristics (both physical and personal) are not di-

rectly evident to others is a way of communicating that implies new ways of being, showing, and negotiating identities. Every item of personal information has to be expressed and shown to the others. Recent approaches adopted by social psychology consider individual and social identity as not stable characteristics, but rather as a dynamic phenomenon. The concept of positioning<sup>13,14</sup> widens the notion of "role," based on a constant and recognizable identity, and brings in the relevance of participating in a complex situation where several different identities can be assumed by the participants within the same interactive context. From Harré and Van Langenhove's<sup>13</sup> point of view, the choice about what possible self to show is driven by strategic moves that participants can make within that situation. The positioning is related to the persons' perception of how that social situation is characterized and what features are more relevant and effective in that specific situation. Playing different identities is then a resource<sup>10</sup> that participants use to give relevance to their argumentations during the discourse in interaction.

Using the concept of positioning and accepting the relevance of the social interaction leads to consideration of identities as socially constructed in specific interactive moments. The conceptual context that participants are sharing during the social construction of their identity becomes very relevant. The context is also socially constructed, and it is up to the developers or researchers of the cyber environment to highlight or hide specific features of it. In cyber environments, users choose to use certain relevant characteristics of their identities as strategic resources<sup>10</sup> to enhance their participation and the overall effectiveness of the community. Identities are negotiated based on the individuals' characteristics and furthermore on the community state and aims.<sup>15</sup> From this point of view, the participants' positioning is not only an individual move, but a phenomenon that is both context-shaped and context-renewing.<sup>16</sup> Identities constructed during the social interaction depend on what each person decides to show about her or his self in that context, and on the context impact in guiding and modelling the possible choices. In fact, the context gives relevance to some specific char-

acteristics of each person, according to that specific type of community and to its development process.

#### *Identities in discourse*

From a methodological point of view, exploration of identities in CVEs poses some questions about which identities are at stake in the interactive context. In virtual environments, each participant is provided with a rich "repertoire" of possible identities, but each person is also carrying his or her own story and his or her multiple selves in the interaction.<sup>17</sup> Sociolinguistics and ethnomethodology<sup>18,19</sup> suggest surveying those characteristics which are relevant to describe the context as the speakers build it via the discursive interaction. While defining the social context, identities are used as interactive resources and as criteria to set what is salient in defining their selves and the others.<sup>20,21</sup> As Sacks<sup>22</sup> illustrates, the identities used during the discourse in interaction are *occasioned* and *indexical*. "Occasioned" refers to the specific context that shapes the way identity can be negotiated. "Indexical" indicates that the terms used are chosen to highlight specific aspects of the self which are strategic and related to the speaker's aims in that specific interactive moment. It is also suggested that the choice users make in terms of social identity and self-presentation are guided by their rhetorical aims.<sup>23,24</sup> Speakers choose which aspect of their own and others' identities to focus on. They do this by choosing terms which are in accordance with their specific aims in that specific moment and by using detailed and unambiguous verbal categories as a negotiating resource acted via discourse.<sup>25,26</sup>

## CONTEXT, MATERIALS, AND METHOD

### *The context and the participants*

Euroland is an educational, three-dimensional (3D), desktop, and Internet-based virtual environment populated and built by students, teachers, and researchers. It belongs to a cross-national project (between Italian and Dutch schools) and its main goal is to set a *community of learners*<sup>27</sup> and *practice*<sup>15</sup> able to construct cul-

tural 3D objects through mediated communication and collaborative active knowledge building. Several communication tools were combined (i.e. text and visual based, synchronous and asynchronous), and embedded into a virtual environment created with the *Active Worlds\** (AW) (<http://www.activeworlds.com>) technology.<sup>28</sup> AW is a desktop-based software, user-oriented and based on not-immersive virtual reality, where interactive environments are generated completely by the users building 3D objects and populating the environment.<sup>29,30</sup> In AW, users can walk around in, navigate through, and fly over a 3D world. The presence of each user is visualized in the form of an Avatar. Each Avatar has a different repertoire of virtual actions and is designed differently. All Avatars can chat synchronously with any other Avatars that are connected.

Thirty-eight students ranging in age from 9 to 15 years old and 10 teachers from 7 different schools participated in the study. Four of the schools were located in Italy (Rome, Milan, Modena, and Bari) and three in the Netherlands (two in Amsterdam and one in The Hague). Four researchers also participated in the study. They acted as a project manager, one expert in building in 3D, and two observers. All participants' real identities were explicitly shared at the beginning of the project so that each participant knew (although they never met face to face) who the other members of the community were.

Everyone connected during a regular basis (three times a week) during the 1999–2000 academic year (approximately 8 months). The weekly average amount of time spent per student was 4 hours (2 online and 2 offline). Teachers and researchers were trained to follow methodological and theoretical principles given by the community of learners and practice models.

The overarching assignment was to build a shared virtual world, called Euroland. The virtual world began as an empty place and the

role of the community was to reach consensus regarding issues of virtual housing development, community planning, and other decisions affecting their new environment. Discussions occurred online and face-to-face within classrooms.

#### *Data collecting*

*Questionnaires.* Two separate questionnaires were developed and administered to the teachers and students who participated in the study. Only one question in each questionnaire was related to the identity in cyberspace: "Did you use always the same Avatar? Why?"

The answers derived from this item of the questionnaires were considered as self-descriptive of the users' "relationship" established with their Avatars. Similar answers were grouped and labelled in accordance with their content. The percentages of each type of answer will be discussed later. A comparison of student and teacher responses will also be discussed in the results section.

*Conversation analysis.* The AW system automatically recorded all of the chatting performed by the participants during the 8 months in Euroland. Chat-based events that were identified as part of the social construction of identity were selected for further analysis. The excerpts of chat were analyzed using an ethnographic method<sup>18,19</sup> and conversation analysis.<sup>22</sup>

*The three-step methodology.* Since this type of environment offers new opportunities to express original aspects about the self, the attempt of interpreting the data by using the three-steps methodology designed by Marková<sup>31</sup> seemed reasonable. In fact, this methodology is designed for the construction of new information about identity and is aligned along the psychosocial approach that emphasizes the reciprocal influence that people have on each other in setting up social images.<sup>32,33</sup> This method isolates three steps occurring during conversations between two interlocutors (A and B). During the first step, A states his view about her or him self ("This is my view"). At the next step, B declares a different view ("I have another way

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\*Active Worlds, Inc. developed this software and made available a special "universe" only for educational purposes, where citizenships are given only to the registered people in order to monitor access to the worlds.

of seeing it"). During the last step, A considers B's statements and claims "Now I look at it in another way."

## RESULTS

The results of the study showed that users' identities performed in cyberspace were highly dependent on the characteristics of the interactive context within which the identities are played and shaped. The results are divided into three sections: (1) results from the questionnaires; (2) chat analysis; and (3) the three-steps analysis.

### *Results from the questionnaires*

Participants were asked to explain whether or not they used the same Avatar during the course of their duration in Euroland and to probe for their reasons of Avatar use. Six different patterns of Avatar use were found:

1. "Try-out" approach: "I tried several Avatars to see what impressions they give to others."

This type of answer refers to the process of trying out the different Avatars available in Euroland. The individuals preferred to check what was possible to do with each of them, and what impression they made on others. In total, 62% of the students preferred to experiment with all of the Avatars rather than using a permanent one. None of the teachers responded in this way.

2. "Need to be recognized" approach: "As soon as they see me they say: here he is!"

A stable Avatar is used during the whole project in order to allow the interlocutors to easily recognize the user. It was found that this strategy was strongly preferred by the teachers (80%), while it is used by only 22% of the students.

3. "Situating" approach: "I change the Avatar depending on the situation: to chat well dressed, to build (a virtual house) more casual."

A different Avatar was chosen depending on the given situation by only 10% of the students and none of the teachers.

4. "Identification" approach: "I was looking for the Avatar that looked more like me."

Only a small percentage (6%) of the students

responded that they were selecting an Avatar based on similarity to themselves.

5. "Social choice" approach: "I used that Avatar because Ele. asked me to change the one I had before, she didn't like it."

Very seldom (2%) the participants selected or changed their Avatar as a result of a request from other interlocutors. This process can be linked to a strong desire for social accomplishment.

6. "No relevance to the Avatar" approach: "I don't know . . . most of the time I didn't even know what Avatar I had on!"

This type of answer was found only among the teachers (20%).

In general, it is observed that students and teachers used the Avatars in different ways. Students reported a wider variety of Avatar use while teachers either preferred to use one Avatar or they didn't care. The relevance of the role within the community in using the Avatar as a discriminating strategy among students and teachers seems to be confirmed by this result.

### *Results from the chat analysis*

In selecting the chats for the conversation analysis, four topics related to identity construction and negotiation were found: (1) talking about Avatars, (2) defining specific aspects of the self, (3) personifying unreal identities, and (4) talking about real identities. Some examples are presented in reference to each of these topics.

*Talking about Avatars.* As already shown by the questionnaire, the choice of an Avatar is much more complex for the students. In fact, quite often they are involved in discussions about what Avatars they should wear. Thirty-five Avatars were available in Euroland (see Fig. 1) and all of the users were free to choose the one they liked most and to change it at any new session or even in the same session.

The social nature of the choice of Avatar is confirmed by the frequent requests for help from other connected users and the importance given to the social. The Avatar seems to be treated not as an extension of the body but as a tool to give a desired impression to others.

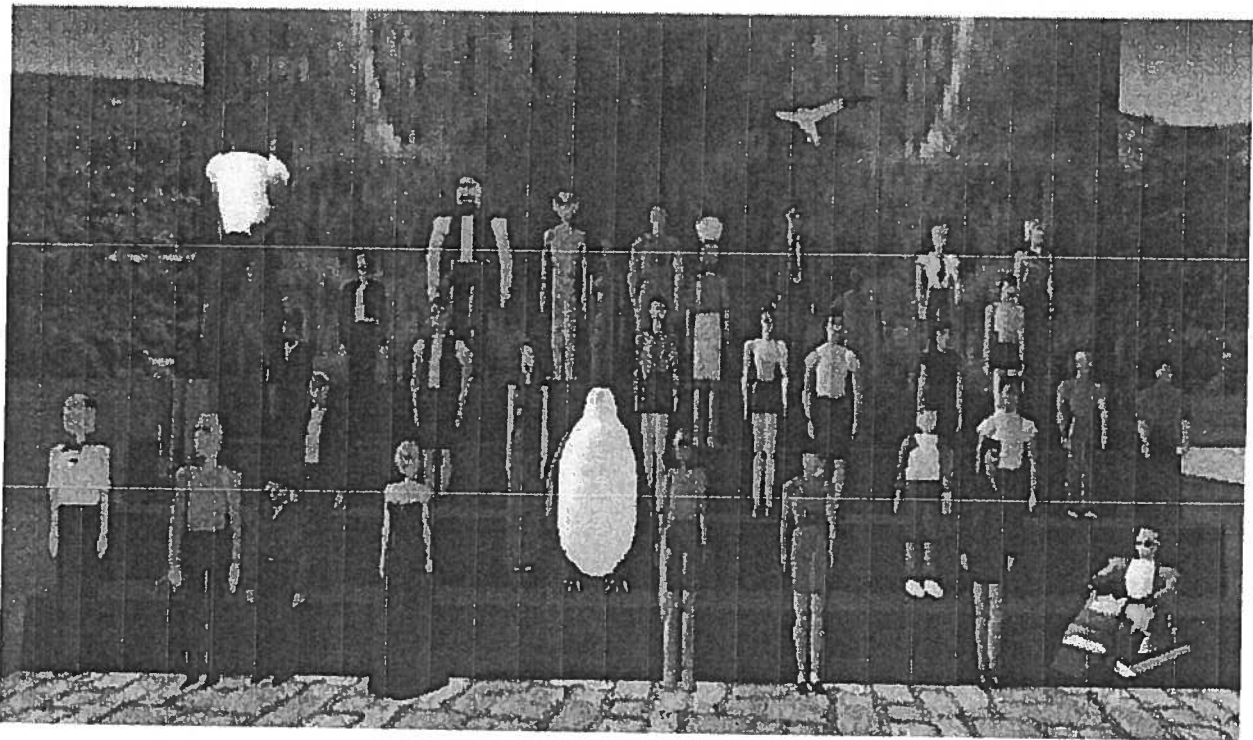


FIG. 1. Avatars in Euroland.

An example is given in the following excerpt from a chat where Be. is the project manager and Val. is a student\*:

Val.: can you give me an advice about the avatar  
 Be.:... sure .. tell me  
 Val.: it is better this one [ellip] . . . .  
 Be.: this is a bit as a vamp  
 Val.: or this one?:  
 Be.: this is kind of classy  
 Val.: you think so .. I cannot make up my mind  
 Be.: if you like we can do this . . . .  
 Be: I can try them on so you can see also the face  
 Val.: I listen to you  
 Val.: or better . . . I look at you  
 [8 Feb. 2000]

\*In all the excerpts the names of participants have been changed. The collective nicknames are not changed in order to exemplify their role as resources during the interaction. When entering Euroland, the participants were automatically advised by the system that the chat would be recorded for research aims. Students' parents and teachers authorized explicitly the data collection since the beginning of the project.

*Defining specific aspects of the self.* One of the most relevant aspects of the self that occurred naturally within this community is the emotional expression. Despite the nonverbal communication, emotions are very often a central topic of the interactions both through special symbols called "emoticons"—such as ☺ to smile and ☹ to express sadness—and the use of emotional terms. One of these terms used in Euroland is "coccolini" ("cuddled"), a confidential name used to address the students. It is an Italian word that refers to "coccole" which means more or less "sweet and darling," or "to be petted." In the chat below this is the first time that this word was used:

Be.: so .. Would you tell me a name and to whom you like to be consultant. For example, Val. house of .....

Mantastrega†: I would let you talk to my cooks ..

†This is the nickname used by one of the Italian teachers. In this example she is connected together with her students so they are all using the same nickname.



Be.: now what guys? . . .  
 Mantastrega: . . . . we are the mantastrega's  
 coccolini  
 [10 Nov.1999 11.00]

The project manager (Be.) is trying to focus the attention of the students to the task, but they decide to give more relevance to an emotional aspect. By calling themselves "coccolini" they are defining themselves as similar to cubs. As cubs, they are implicitly calling for special attention and care. Through the legitimization of the project manager, this specific aspect of the self becomes a new label of the social identity shared by the community. In fact, Be. reuses this adjective later to name all the other students.

This example shows also how self-presentation is at the same time context-shaped (this particular social environment allows emotional expression) and context-renewing (new elements introduced by the participants are used afterwards by the experts).<sup>34</sup> The role of more legitimate members (like the project manager) is crucial<sup>35</sup> in mediating the adoption inside the community's repertoire of words, expressions, and rituals proposed by individual members.

*Personifying unreal identities.* Some of the interactions in Euroland are played around unreal identities, based on both the type of Avatar chosen and the type of discourse established around specific nicknames. This is one of the specific resources that the system offers to users in terms of negotiation. The possibility of playing with fictional identities, both with embodiment and with name creation, allows participants to define each time those aspects that they consider to be relevant in specific interactive moments, and to fit specific aims which are context-shaped. In this sense the strategic resources which can be used have no concrete limitations other than the rules given within the community.

In the excerpt below one of the teachers plays the role of the witch to motivate the students at performing their task and to give a more playful input to the context. She (Mantastrega) and one of her students (Val.) are welcoming newcomers.

Mantastrega: MarcoMichela\* nice to meet you. I am the witch . . . aha-hahaah  
 Val.: do you want to become elf of our teacher?  
 Mantastrega: F.,<sup>†</sup> do you want as well became one of my elf? (you would have magic power : ) )  
 [2 Feb. 2000]

The nickname showed by this teacher is a rare example of a double-name composed by some feature coming from her real life connected with some fantasy aspects of the self she wants to show. The name Mantastrega is in fact composed of "Manta," which is a particular fish (the "devil fish") and refers to the fact that she used to dive, and by "Strega," meaning the witch, which is the unreal mask that she often personifies during the online connections.

Here she introduces herself by proposing the witch representation as an active dimension for interaction. Val. (a student of Mantastrega) constructs a shared identity with the newcomer by adopting also for herself the representation of her teacher. She asks MarcoMichela (a couple of students from another class) to join them and to become (as they already are) one of elves of Mantastrega. In the meantime Mantastrega adds some more descriptive features (having magic power) to propose this identity to F., a newcomer colleague. Here unreal identity is played to build the community and let newcomers feel involved by sharing fantastic meanings. Unreal identities are played also by wearing Avatars.

In another chat, the penguin representation is exploited by one of the tutors (Clarence) in order to support students' involvement, especially of those that are not familiar with cyberspace. During the selected chat reported below, the students from one of the classes in Amsterdam (here we meet Jon) connects for the first time. Be., the project manager, facilitates:

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\*The double-named accounts were made by combining the two names of pupils working in dyads in front of the computer. They were assigned temporarily to the students in Bari by the project manager but they were never changed by the users.

<sup>†</sup>F. is the initial of the real name of the teacher using, in that moment, his students account (MarcoMichela).

Be.: Hello guys this is Clarence the penguin  
 Clarence: :o))))))  
 Jon.: the penguin?  
 Be.: sure . . . he is a penguin don't you see it?  
 Clarence: how do you do?  
 Jon.: hello penguin! (Clarence)  
 Clarence: hello Jon :o)))  
 . . . . .  
 Bar.\*: These are my students and this is the first time they are here so they are still a little bit shy : )))  
 Clarence: :o) don't be shy ! I don't eat kids, but fish :o)))  
 [21 Feb. 2000]

This time, the representation is tied to the design of the Avatar: Clarence is wearing the penguin Avatar. Discourses are reinforcing this representation and all the other members of the community accept interaction with that tutor based on the penguin representation, throughout the whole project. Clarence's choice of the penguin, which is very stable for the project duration, is meant by the tutor to play with students, a reassuring character to let them enter Euroland in a playful way. The tutor's identity is also adopted to reinforce the cuddled-pets representation of students:

Clarence: coccolini-penguins is it all right?  
 [15 Dec. 1999]

The nickname of the tutor, Clarence, recalls a very famous character of an old movie (*It's a Wonderful Life*), where Clarence was an angel-in-training with the task of saving someone on earth. The reference to the unreal angel identity expressed by this nickname is emerging in the chat in relation to difficult situations, where Clarence's help is needed by students and teachers. In the excerpt below Clarence sent to Mantastrega some images for the building she was working at:

Mantastrega: mantasmack to my favourite angel thanks for all  
 [5 Apr. 2000]

\*Bar. is the teacher of the newcomer class from Amsterdam.

*Shifting to real identities.* The rhetorical manipulation of real identities is also observable during the chat. Some features of the self are made more relevant by the users to achieve more arousal or affect the interaction itself. The indexical choices are used as a resource that participants spend in the discursive path to make their own characteristics recognizable within the group. During some online connections, the students (Ele.) posted their group photos into Euroland and the other users (in this excerpt Be, the project manager) could see their real appearance. Comments and discourses were provoked by this event.

Be.: Ehi finally I can see you!!!  
 bea: and who are the others? (*referring to the other people in the photo*)  
 [ . . . ]  
 Ele.: the wonderful person in the back is our teacher  
 Be.: he looks to me a bit moved?  
 Ele.: he says no, it is a grimace of pain  
 Be.: of pain?? Why, what are you doing to him?  
 Ele.: nothing, is our closeness that makes this effect  
 [17 Nov. 2000]

By explaining who they are in the photo they reported some real information about the classroom's climate and about the students-teacher relationship. The shift to real identities contributes here in the construction of a real community.

Another example of interaction around their real identity is in the next excerpt. Here, some students (Ele.) spontaneously describe an extraactivity undertaken by them and related to the project.

Ele.: while we were working Y. wrote a sort of report  
 Be.: A report? But is a wonderful idea  
 Be.: Could I have a copy if it ?  
 Ele.: in a few days  
 Be.: that's ok : (  
 Be.: I relay on that eh!?!  
 Be.: this is the defect of the researcher...  
 Ele.: basically we write down what we do  
 Be.: always starving to know everything  
 Be.: yes very good idea ! Well done

Be.: but I really would like to have a copy of it!  
 Ele.: ok  
 Be.: Am I too demanding?!  
 Be.: :(  
 Ele.: no, we will sent it to you, no problem  
 Be.: I am really interested on what you do  
 [17 Nov. 2000 = PM]

The project manager (Be.) rhetorically uses her role of researcher to access this type of data, checking whether it is perceived by the students as too demanding. The negotiation running in the cyberspace deals with a concrete situation (where the researcher needs to collect data). The reference to the real roles and tasks seems to be here the most effective strategy to justify the request regarding something which is not due by the students. The socially shared representation of the researcher (as "always starving to know everything" is also enriched by a reference to a personal relationship ("I'm really interested on what you do") to increase the students' accomplishment.

On several occasions teachers and students shared the same computer and used the same nickname inside EuroLand. This created some additional problems for being able to link the nickname with the correct person. When this happens real identities have to be clearly shown to allow the interaction going on. Collective nicknames were also introduced to enhance the perception of the group situation set in some classes where children were always working in dyads in front of the computer. In the excerpt below, Mantastrega's students (Val., Dan., and Ste.) are trying to welcome the newcomers and only Be. knows that the Avatar labelled as MarcoMichela was not used by the students but rather by one of their teachers at that moment.

Val.: ciao MARCO!!!!  
 Dan.: ciao Marco and Michela  
 Ste.: ciao marco and michela  
 Be.: for now I am introducing you Marco and Michela's Avatar  
 MarcoMichela: ciao to all of you  
 Clarence: ciao :o)  
 mantastrega: we are happy to meet you Marco and Michela!!!

Val.: CIAO Michela  
 MarcoMichela: I am F.  
 Be.: Right now F., that is a teacher is using it

[4 Feb. 2000]

Here Be. introduces the Avatar as a "simulacra," a social representation of the account that later will be used by the new students. This representation is created behind the students' (Marco and Michela) presence in EuroLand and regardless of the Avatar they are going to use. In fact, at the moment the MarcoMichela account is used by their teacher (to test it out) and once the students connect, they can choose a different Avatar.

#### *The three-steps procedure for 3D chats*

From where does the coconstruction of identity start? Is there any specific impact of the visual representation offered by the AW system on shaping the process? For most of the participants, this was the first time that they were using a cyber environment. They started to walk around, to talk about themselves, and to build the 3D objects in a fairly new way. For this reason the three-steps procedure described by Marková<sup>31</sup> to create new information is suitable for analyzing this experience. Based on the information gathered from the questionnaires and the results from the chats analysis, the three steps are still visible but with a different coconstructing path.

Step 1: A to B. The content expressed by A is no longer "*This is my view*" (as resulted in the original first step) but "*What is your view?*"

Step 2: B to A. B says, "*This is my view*" instead of saying "*I have another way of seeing it.*"

Step 3: A says to B, "*Now this is my view*" implying that she or he did not have any precise view before entering the dialogue. With the "*Now I look at it in another way*" statement (as found in the original third step) it was implied to be a previous conviction of A, that changed during the interaction.

Initial impressions that speakers have about themselves were based on elements, such as

wearing an Avatar or interacting via chat, not familiar even to the adults. In the excerpt below, it is evident that not being able to see the face of her own Avatar (Al.\*) will influence the steps in forming impressions about the self:

Al.: *how can I see my own face?*

Be.: *(to Al.) select the third view from the menu above*

.....

Be.: *(to Al.) do you see now your self*

.....

Al.: *yes, I see my self but not my face*

Be.: *(to Al.) for that you need a mirror*

.....

Al.: *Ahh! I will ask Don<sup>†</sup> if she let me see my face*

During this dialogue Al. is asking her interlocutor to give an impression about her look. Users enter the cyberspace without any already-shaped opinion about how they look and what kind of impression they give to the others. The system shows only the back face of the Avatar so all the expressive features of the simulacrum are not shown directly to the user. The salience of the not-visible features of Avatars has to be coconstructed with the help of others. This is a specific feature of this system which obligates the reciprocal confrontation and contributes to build a sort of social accomplishment on the embodiment of subjects during the interaction. The information provided by the interlocutors is used as a starting point to form a new representation of the self into the cyberspace. These results confirmed that the construction of identities in the cyberspace is strongly influenced by the particular interaction allowed by the context both in visual experience affordable and in social interaction.

## DISCUSSION

The community described in this paper could not exist outside of its specific contexts created by CVEs. This is true not only because

of the physical limitation (participants are at a distance) but mostly due to the social rules (as researchers, teachers, and students working at the same task from a different "position" at the same time) and the task (constructing cultural buildings). Furthermore, the recreation of this context through different technology would hardly be possible and the community itself would never come to act in the way they showed. At the same time, the experience described in this paper is so rich and complex that its effect does not confine itself within the virtual world. Having learning goals and research aims pushed the participants to act in a very real way, even when playing with unreal identities. By sharing and creating new meanings and by continuously comparing the virtual life in Euroland to the real life in the classroom, they enhanced the blurring of the boundaries between them. Some of these ideas lie at the core for learning and collaborative work in educational technology.

In this study, cyberspace is a new arena where interactions and dialogues can be recorded and observed in real time. Being connected as participants, researchers have the opportunity to document how the identities emerge and how they are socially shared. And this is a methodology specificity of cyberspace which enhances the research by allowing the survey of emic dimensions<sup>19</sup> built by participants during the interactions.

The results of this study show that identity is not a static characteristic of participants. Rather, it is negotiated through discourse in interaction, based on the context features and the roles assumed by the participants within the context. Virtual environments widen the possible self that can be used and new "positionings" are possible within new context. This becomes very evident during the online interactions between chatters that never get a chance to meet face to face. The problem of which self (choice of nicknames and Avatars) to personify during the virtual interactions is a core problem defined inside the particular social context where the interaction itself takes place.

Multiple cyberidentities seem to fit the dialogical theories of identity, suggesting that each individual is composed of "multiple-populated

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\*Al. is one of the researchers involved as a participant observer.

<sup>†</sup>Don. is another researcher connected by the same room where Al. was at the moment.

self"<sup>17</sup> with many voices,<sup>36</sup> not necessary harmonized to each other and sometimes even in conflict.<sup>37</sup> Action and communication are at the basis of the constructive and interpretative process of building identities and those processes are distributed into contexts composed by other entities, cognitive artefacts, and relationships.<sup>38</sup> Identities reside not only in the mind but also in the context and in the artefacts we interact with. Communication and discourse are used not as processes to describe the self but to construct it in a dialogical reality. Not as a consequence of what it is said, as entity reproduced into the language, but as built with and into the language.<sup>39-41</sup>

The call for a development of the interface of computers and virtual environments based on progressive or full embodiment of the self, either through Avatars or immersive devices,<sup>6,7</sup> is contrasted by the more psychological point of view, rooted into the Cartesian belief "*I think, therefore I am.*" The disembodied self is essentially different from the body or from other material extended in space. In fact, the embodied self is always tied in a particular position in time and space. As Hermans et al.<sup>42</sup> says, quoting Merleau-Ponty,<sup>43</sup> "being embodied, the person is not able to 'fly above' his or her position in space and time." "Flying over" the cyberspace as well as passing through 3D objects, is a very easy and rather usual activity that Avatars do, and gives a completely different nature to the "body" used to represent themselves. The attempt to consider the virtual body as an extension of the real body comes from a theoretical development of the idea that "the body is a representational medium of the mind"<sup>8</sup> (p. 3) and "the fundamental communication hardware"<sup>8</sup> (p. 5). Developing this line of thinking, the computer is considered as an extension of the body and the interface establishes a tight and pervasive coupling with the body. Those scholars believe that Descartes is fundamentally wrong<sup>44</sup> by separating the mind and the body and that identity substantially coincides with the body.<sup>45</sup> However, how reasonable is it to consider the Avatar as a substitute of the body?

Our results show that identities in cyberspace are coconstructed, situated, not stable,

occasioned, and indexical. Thus, embodiment with one or plural Avatars is only one of the elements in play when negotiating identities and "positioning" them. Unreal identities can be acted based on the Avatar's shape (as in the case of the "penguin" tutor) but also exclusively on the discourse engaged into the environment (as in the case of the "fish-witch"—Mantastrega—that does not wear an Avatar related to any of those characteristics). In any case, the specific contexts and situations shape the digital presences and identities. Euroland is a small educational community, where tasks are designed and accomplished under adult guidance. This setting leads adults to the need of being easily recognized either by a stable Avatar or a specific and constant dialogue-based representation, and their rhetorical aim is to be able to offer better guidance. Students, on the contrary, adopt a wider range of processes in deciding whether to always keep the same Avatar or not: they can afford not to be always recognized by the others. Therefore each salient feature of the context, of the specific situation, of the interlocutors, strongly compete in deciding the strategic identity used and the "positioning" chosen.

This all happens in a community where all participants' identities are well known from the very beginning: here, participants show the use of real and unreal identities, played both by the use of nicknames, avatars, or discursive strategies, as rhetorical tools to give salience to specific interactive dimensions. Playing with identities in Euroland seems to demonstrate that when the virtual interactive context is built around a real and concrete situation, the blur between real and unreal resources offered by cyberspace seems to be more evident.

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