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Dialogical Approach
in Virtual Communities:
Theories and Methods

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The dialogical self between the virtual and the real in Positioning Network Analysis

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Abstract

Over the last several years there has been a growing interest in the dialogical approach for studying identity; at the same time there is a great need for identifying appropriate methods for a dialogical analysis of identity. The aim of this article is to propose a methodology for studying the dialogical nature of identity both in virtual and real contexts.

The proposed methodology tries to implement the concept of positioning that combines Dialogical Self theory (Hermans, 2001a; Hermans & Gieser, 2012; Hermans & Hermans-Konopka, 2010) with other sources (Goffman, 1979; Harrè, Moghaddam, Cairnie, Rothbart & Sabat, 2009; Tan & Moghaddam, 1999; Vion, 1995).

A brief review of the literature on current methods to analyze identity dynamics sets the background for our methodological proposal that introduces an innovative and qualitative use of Social Network Analysis, generally employed to examine relational interactions of a community. The qualitative use of SNA produces an original methodological device called

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Positioning Network Analysis (PNA), where network nodes represent identity positionings.

We will explain conceptual steps of PNA by providing some examples for each step. Our aim is to show the versatility of this tool both in virtual and in real contexts of blended communities.

Keywords: positioning network analysis, dialogical self, positioning, blended communities.

Introduction

A review of the relevant research literature reveals several models and methods for studying identity dynamics both in real and virtual contexts. Over the last several years there has been a growing interest in the dialogical approach to investigating identity, but there is currently a lack of clarity about the methods used for a dialogical analysis of identity.

To address this need for identifying appropriate methodologies for studying identity, our paper focuses on the dialogical approach and proposes an innovative methodology for investigating the dialogical nature of identity in real and virtual settings.

Cultural psychology perspectives that overcome traditional dichotomies of psychology such as personal/social, internal/external, thought/action, self/other promote a dialogical redefinition of identity. The concept of identity has changed over the years, moving from the essentialistic and individualistic representation of self (Greenwald, 1980) to an anti-essentialistic and social definition of identity (Sampson, 1989). This change entails the multiplication and fragmentation of identity and shifts attention from the “centre” of the self towards the perimeter of the person (Shotter & Gergen, 1989).

The progressive movement from an essentialistic to a social approach particularly reflects the socio-constructionist point of view that considers the self as deriving from social relations with others (Gergen, 1985, 1994). In this sense the Self feeds on social practices and shared meanings built during relations with others. It assumes a social, multiple and dialogic nature: social as it derives from interaction with others; multiple as it is not a unique and stable reality; and dialogic as it is built through dialogue.

Dialogical Self theory (Hermans, 2001a) provides a incisive explanation of this manifold and shifting nature of identity, through a dynamic overview of the positionings' movement in the self organization. The broadly-conceived post-modern sense of self positioning in the socio-constructionist tradition is enriched by Hermans' more nuanced version (Hermans & Gieser, 2012). The relevance of features such as difference and otherness contributes to amplify the multiplicity of the self positionings (Hermans & Hermans-Konopka, 2010).

Dialogical identity: "Positioning"

The heterogeneous and fluid nature of identity necessitates a conceptual framework able to justify its dynamic dimension. Indeed, a theoretical discussion has developed about the concepts of role versus position. The notion of role recalls a rigid feature of identity giving it a static representation, whereas the notion of position allows for a dynamic representation of identity giving it a variable nature.

Dialogical Self theory represents the natural evolution of this discussion as it provides a very interesting definition of the self. It is inspired by many previous authors (James, 1980; Mead, 1934), but principally draw on Bakhtin's work (1973). Bakhtin suggests that identity is a storytelling where the author plays multiple voices, a polyphony of selves involved in a dialogic plot.

Dialogical Self theory is a dynamic multiplicity of "I-positions" (Hermans, Kempenn & Van Loon, 1992): various aspects of the self settled in different positions and arranged in a spatialized organization where, over time, specific positions become salient according to specific situations (Hermans, 1996, 2001a). Each position provides the Self with a voice including the interaction with Other and capable of dialogue with other voices of the self. As a "polyphonic novel" (Bakhtin, 1935), these multiple voices draw up and oppose each other in a dialogical way, producing different positionings organized in a coherent identity plot.

Positionings may be both internal and external to the individual: decisive positionings are internal (e.g. "I, mother", "I, teacher"),

while contextual positionings are external (e.g. “my son”, “my students”). Internal and external positionings are engaged in networked dialogues that give specific configurations to the self. Each configuration depends on the specific situation and moment in which the individual is living. Furthermore, during social interactions the internal dialogues (between internal and external positionings) interweave with the interpersonal dialogues (with other social actors’ positionings), producing a network of individual and social levels of the dialogical self.

Positioning Theory (Harré & Van Langenhove, 1991) and Dialogical Self Theory are similar when they sustain the dynamic nature of positioning process, but are different in other aspects. As Hermans maintains (Hermans & Hermans-Konopka, 2010, p. 11): “*positioning theory is focused on the processes that take place between people, dialogical self theory aims at a profound exploration of the experiential richness and emotional qualities of the self in close connection with inter-subjective processes*”.

Even Ragatt (2007) underlines specificities belonging to Positioning Theory and Dialogical Self Theory, despite their connections. Both theories have a broad range of interpreters as they have been developed and widely used in various contexts.

Within Positioning Theory, Smith (1988) maintains that specific positionings of the self emerge during peculiar social practices, while Davies and Harré (1990) state that each positioning represents the way an individual is in a particular situation and context. Thus participating in social practices means interiorizing new ways of conceiving themselves, new positionings to engage in dialogic interplays (Harré & Van Langenhove, 1991).

In a different way, Goffman (1979) can be considered another important author who have highlighted the notion of positioning, by labelling it “footing”. Goffman starts from the statement that the classical distinction between speaker and hearer is not enough to explain conversational interaction and enlarges participation framework through the concept of footing: “*A change in footing implies a change in the alignment we take up to ourselves and the others present as expressed in the way we manage the production or reception of an utter-*

ance. A change in our footing is another way of talking about a change in our frame for events” (Goffman, 1979, 5). According to Goffman, footing represents the position of the participant during the conversation, his alignment toward himself and other participants in the course of interaction.

Later, Vion (1995) developed a systematic model of analysis to implement Goffman’s participation framework and proposed categories to analyze the varieties of positioning phenomenon. This model focuses on *enunciative positioning processes*, by which speakers represent themselves in their own speech and mark their degree of involvement. Vion’s conceptual repertory is consistent with the positions sketched by Goffman – animator, author and principal – and is clearly related to the notion of positioning proposed by Hermans et al. (1992).

It is evident that the concept of positioning, crucial for the dialogical self, is not exclusively the intellectual property of Hermans, although he is one of the main representatives of this research line. Hermans distinctly keeps alive the discussion about the notion of positioning (Hermans & Hermans-Konopka, 2010; Hermans & Gieser, 2012), by providing various distinctions of positioning concept. For example he distinguishes between two movements in the positioning process: centralizing and decentralizing movements. This specification corresponds to the differentiation between a modern model of self and a post-modern model (Hermans & Hermans-Konopka, 2010). Centralizing movements give unity to the modern self, decentralizing movements foster multiplicity of the post-modern self. Specifically the multiplicity of self positionings does not mean fragmentation, but enriches the positions, as each of them includes an historical trajectory and a narrative plot. This feature entails that not only is there always a relationship with intersubjective practices, but there is also an emotional trait of positions giving more intensity to the self.

Our reference point in this paper is Hermans’s notion of positioning, combined with other sources. Specifically, we extend Hermans’ self positionings with intersubjective processes with Goffman’s notions of footing and Vion’s enunciative positioning processes. Other

important sources that inform our work include recent advances in Positioning Theory (Harrè, Moghaddam, Cairnie, Rothbart & Sabat, 2009), such as the expansion of positioning analysis to inter-group processes (Harrè et al., 2009; Tan & Moghaddam, 1999) from the initial attention to inter-personal processes (Hollway, 1984). Hermans, too accepts this expansion to inter-group processes, when he speaks of a dialogue between collective voices of groups to which individuals belong (Hermans & Hermans-Konokpa, 2010). Moreover Positioning Theory (Harrè & Moghaddam, 2003; Ragatt, 2007) maintains that collective voices, even if expressed through single individuals, represent social positionings.

The issue of positioning is quite broad and implies different readings, opening avenues to multiple theoretical discussions and their methodological implications. Indeed there is a great need to make clear which methodologies empirically fit the concept of positioning. Therefore it is necessary to review methodological literature about identity dynamics in a dialogical perspective, and then propose a new methodological device.

Dialogical identity: Methods

Analyzing different voices of identity and their dialogic relationship is not a simple task and the methodological debate necessarily starts from theoretical approaches.

Some works choose a narrative approach and conceive positioning as conflicting life narratives, to study through in-depth interviews (Raggatt, 2000).

Other studies, starting from Bakhtinian assumptions, try to develop the footing concept of Goffman (1979). Skinner, Valsiner & Holland (2001) show how Bakhtin's ideas can be implemented by a narrative analysis focused on the construction of individual identities. In an extensive ethnographic study about a rural community, they try to identify who is the speaker and what are the specific situations, who are the participants and the audience, how the speaker is able to catch his audience. In this way they implement the conceptual framework

in a methodological device able to discover how individuals organize voices from their cultural and social worlds in order to create distinctive images of self. Through self narration, they can explore individual identities such as that of a Nepali adolescent.

The concept of footing is also relevant in the methodological proposal of Rouveyrol, Maury-Rouan, Vion & Noeil-Jorand (2005). They propose, on the basis of the “star model” (Vion, 1995), a “linguistic toolbox for a discourse analysis”. Some discursive indices (modalizations, polyphonic use of negation, enunciative markers) can give information about the way by which speakers represent themselves. The work of Rouveyrol and his collaborators have inspired other works aimed at identifying interlocutors’ positionings. A valid example is represented by Léchoť, Grossen, & Salazar Orvig study (2008) where different “speakers’ identification moves” contribute to the discursive dynamics of a focus group as argumentative resources.

In order to provide empirical support to his theory and on the basis of his self-confrontation method (Hermans & Hermans-Jansen, 1995), Hermans (2001b) develops a methodological tool for investigating the dialogical self in practical clinical problems: the Personal Position Repertoire (PPR). The aim of this tool is to study the organization of an individual’s positions repertoire, by paying attention to the dialogical relationships between internal and external positions. The output is a matrix able to highlight the interaction between particular internal positions and specific external positions (Hermans, 2001b). The PPR is a useful tool for mapping the dialogical self, above all in clinical contexts, but it is ineffective in some aspects. For example, most of the positions to be identified in the PPR are suggested by the same *researchers*. Another important critique is made by Gonçalves and Salgado (2001) who acknowledge the essential contribution provided by Hermans and his collaborators through PPR, but focus on some weak points such as the separation between internal and external positions. According to Gonçalves and Salgado these positions are inseparable as they jointly work when speakers, by addressing to an audience, define their position in relation to the others, to the receivers. Thus Gonçalves and Salgado encourage researchers to improve the PPR method. The same author of PPR, Hermans (2001b), defines it as “*an example of a dialogical method*

with the possibility that other researchers may create other or even better theory-guided alternatives” (324).

Many scholars, interested in studying dialogical identity in different contexts, have answered this call. In terms of virtual environments, Spadaro and Ligorio (2005) try to identify what kind of relationships link self positionings to the formation dynamics of a virtual community, by employing two different methodologies: the PPR, as described by Hermans (2001b), and the participation strategies elaborated by Wenger (1998). The integration of these two tools underline the interaction between different members’ positionings and their participation trajectories in the community practices involving them.

The methodological implementation of Dialogical Self theory is continuously increasing, as Hermans and Dimaggio (2007, p.59) suggest: *“For the future of dialogical self theory it is of crucial importance to expand its empirical evidence to avoid gap between theory and research”*. This suggestion gives way to new proposals aimed at creating innovative devices for filling the gap between theory and research and for investigating different application contexts for dialogical self.

The Positioning Network Analysis: A dialogical device for identity

The need to extend empirical evidence of theory in contexts different from the traditional clinical one and the growing diffusion of virtual communities lead us to look for a methodological device suitable to investigate the dialogical construction of identity in virtual and blended contexts.

Blended communities are characterized by the mixing of direct and mediated interactions, as virtual technologies support interaction in face-to-face groups. They have originated in educational contexts with blended learning (Ligorio, Cacciamani & Cesareni, 2006), but now they are spreading to other contexts, particularly professional ones.

Our methodological proposal derives from the examination of three communities of students attending the blended course of E-Learning Psychology at University of Bari (a detailed description is given in the editorial note) in three academic years: 2005-2006 (group 1); 2006-2007

(group 2); 2007-2008 (group 3). During the course students are asked to attend offline classroom lessons and to participate in online activities by discussing in web forums about the course topic. Data are represented by posts written by students in online forum discussions and conversational exchanges produced during offline thematic discussions and focus groups.

Even the methodological device here proposed is blended: we integrate qualitative and quantitative tools to create an innovative method that is able to bridge theory and research through the implementation of the positioning concept and aimed at comparing the dialogical construction of identity in real and virtual settings of blended communities.

But, above all, the methodology here proposed has a dialogical nature as it puts qualitative and quantitative methods into communication. In fact, as a dialogical device, it represents an innovative and qualitative use of Social Network Analysis (SNA) (Wasserman & Faust, 1994). SNA is a traditionally quantitative tool, generally used to investigate relational framework of communities. At the beginnings it is implemented in real social contexts (Galaskiewicz & Wasserman, 1989); later it is used in virtual contexts (Garton, Haythornthwaite & Wellman, 1997). Recently it has been employed in combination with content analysis, above all in virtual groups (Martinez, Dimitriadis, Rubia, Gomez, Garrachon & Marcos, 2002), but always to explore the relational network of communities.

We propose the use of SNA, integrated with a qualitative content analysis procedure, for analyzing identity dynamics, both in real and virtual communities.

Content analysis is usually employed to infer meaning from data content, but there are two different interpretative procedures: the traditional quantitative analysis (Bereleson, 1952) that detects linguistic frequencies of content with a descriptive-inferential aim; and the qualitative approach (Mayring, 2000) that codes the content according to categories also involving extra-linguistic context, with an aim towards theory-building.

The integration of qualitative content analysis and quantitative SNA, for the first time adapted to the conceptual framework of Dia-

logical Self, allows us to create an innovative variant, called Positioning Network Analysis (PNA) (Annese & Traetta, 2011), where network nodes are not members of community but positionings of members.

Our aim is to analyse dialogical dynamics of identity definition for participants in blended communities, by comparing their identity positionings in online and offline environments. In order to build identity networks we perform three complementary stages of analysis:

- 1) qualitative content analysis;
- 2) Positioning Network Analysis;
- 3) analysis of identity's levels.

In the former stage we code data through the notion of “positioning”; so the first step consists of the construction of a category grid including 15 theory and data-driven positionings – clustered in 5 core categories (see Tab. 1). In identifying each category of positioning we analyse the way in which the speaker positions himself/herself towards community, marking his/her involvement degree in it. In this work of classification, our view of positioning process originates from multiple contributions.

First, there is Herman's concept of self positioning, not associated specifically to the procedure of PPR, where the narrative quality of positioning is emphasized. Instead our method highlights enunciative dynamics in positioning process. Indeed an important source is Vion's notion of enunciative positioning, the way in which a speaker represents his/her own discourse. This perspective about positioning – the way in which persons place themselves within a particular relational framework – is shared by other scholars (Goffman, 1979; Holway, 1984; Slocum Bradley, 2009). Another significant source for our work is represented by the conceptions of inter-group level (Harré et al., 2009; Tan & Moghaddam, 1999) and social positioning (Harré & Moghaddam, 2003, Ragatt, 2007), both of them strongly marking the link between positioning process and group membership.

Nevertheless, our conceptual root is Hermans's model, in particular his distinction between internal and external positionings (Hermans, 1996) combined with another distinction between individual and collective positionings specifically for virtual communities (Spadaro, 2008).

Even if some categories are theory driven, some others are data driven such as those ones related to the peculiar organization of the examined communities. Particularly, data analysis suggests categories for formal roles (i.e. tutor, critical friend, summarizer) played by participants in the course activity or the discrimination between various levels of collectivity, given by the composition of observed communities in subgroups interacting within and between them.

Tab. 1. Grid of positioning categories

Core categories	Categories	Definition	Example
Individual positionings	Internal	Emotions, ideas, interior aspects related to personal identity	“I think that...”
	External	Reference to experiences, people, places relevant for personal identity of the speaker	“I come from Valenzano...”
	Open	Utterances in which doubtful positions of the self are expressed	“I don’t know if I’m a good tutor...”
Collective positionings	Internal	Self descriptions as belonging to a “we” representing the whole community	“We meet in our Skype”
	External	Reference to experiences, people, places shared by the whole community relevant for the collective identity	“The Sereni’s lessons...”
	Open	Utterances in which speakers express doubtful positions of the collective identity	“We hadn’t understood...”
	internal related to subgroup	Self descriptions as belonging to a “we” restricted to a formal subgroup of the larger community	“we belong to group A...”
	internal related to formal role	Self descriptions as belonging to a “we” restricted to a subgroup of the larger community, composed of participants playing the same formal role	“we tutors”
	open related to formal role	Utterances in which speakers express doubtful positions about the collective identity related to the role playing	“we tutors could do it...”

Interpersonal positionings	Direct	Explicit reference to one or more participants through the use of "you"	"As you said..."
	Indirect	Implicit reference to one or more participants through an indirect quotation	"As Dario said..."
	directly related to formal role	Explicit reference to one or more participants playing the same formal role	"As you tutors said..."
Intergroup positionings	Direct	Direct references to other subgroups	"you members belonging to group A"
	Indirect	Indirect references to other subgroups	"As the group A said..."
Boundary positioning		Linguistic expressions marking the member's temporary estrangement from the community	"I think that...; what do you think about it?"

The rich taxonomy of positionings describes the complexity of identity construction concerning both personal and social aspects of self. If individual positionings mark personal identity traits, collective positionings mark social identity traits. Collective positionings relate individuals to community, creating an original integration between Dialogical Self theory and psychosocial dynamics of groups. As an instance, the new community positionings are activated by members to define themselves as community spokesperson or as belonging to a 'we' sharing experiences and spaces extended to the wider social context rather than the restricted individual sphere of action. Furthermore, interpersonal positionings are able to foster the belonging sense to the community by relating members to other groups' members. Other positioning categories promote multiple membership within the same community by referring to the interaction of subgroups.

On the contrary, boundary positioning marks the border between individual and community. It is characterised by a temporary distancing from a central belonging to the community, to occupy a more marginal and individual position in which he/she considers him/herself as an individual against the group.

This grid has been implemented for the interactions of all three groups of students. The selected data are 14 offline discussions and 14 online discussions.

Each message, represented by web forum posts in online discussions and by conversational turns in offline discussions, has been categorized through the categories in the grid. Then, in the second stage we have identified the links between categories, distinguishing between eliciting and elicited positionings through a qualitative content analysis.

The elicited positioning is used in the current message and is triggered by a positioning used in a previous message (see example 1), called eliciting positioning for its starting function:

Example 1: online discussion group 1

Maria: “According to me [...]. Do you agree with me?”

Ilario: “I agree with Maria: I remember that...”

Maria’s boundary positioning is the eliciting category (“Do you agree with me?”) and is used to start up Ilario’s individual positioning (“I agree...”) as elicited category.

An inter-rater reliability of 85.6% was obtained in content analysis performed by two independent researchers on the whole data corpus.

The results of classification in eliciting/elicited links are arranged in adjacency matrices, in which each cell contains the number of links between two positioning categories (see Tab. 2).

Tab. 2. Extract of an adjacency matrix of some positionings

	individual internal	individual external	collective internal	collective external	individual open	collective open
individual internal	15	1	2	1	1	0
individual external	0	2	0	0	0	0
collective internal	4	1	1	0	2	0
collective external	0	0	1	4	0	0
individual open	2	0	1	0	0	0
collective open	0	0	0	0	0	0

Subsequently the matrices are imported into NetMiner3 (www.net-miner.com), a software for performing the analysis of social networks. NetMiner3 is often used for Social Network Analysis (SNA) because it is very versatile. It allows researchers to explore different research objects through various options arranging differentiated kinds of analysis. We have chosen two of these analysis options, called SNA indices, and specifically fitting our research aim, to find identity networks through the positioning process.

In this way we adjust the conceptual framework of Dialogical Self to SNA arrangement, we make the concept of “positioning” operational by representing it as a network node. The final network is not the structure of relations among nodes/members, but the structure of relations among nodes/positionings of members.

The two SNA indices we have chosen – neighbour analysis and centrality analysis – are traditional options of Social Network Analysis (Wasserman & Faust, 1994), but their use according to identity positionings is a novel analysis that we call PNA. First, the neighbour analysis, traditionally employed to investigate the cohesion level among community members (Scott, 1997), is performed in PNA to explore the complete repertoire of positionings activated by the whole community. Second, the degree centrality analysis, usually employed to examine each actor’s centrality and his social power (Reffay & Chani-er, 2002), is performed in PNA to detect crucial positionings for the self of all participants and their link to most of other positionings.

The output of each analysis is a graphical map together with an index. For neighbour analysis there is a density index representing the cohesion level among network nodes, by values range from 0 (no links at all among nodes) to 1 (all nodes are linked among them). The density index is calculated according to two other measures: the inclusiveness index and the nodal degree index. The inclusiveness index represents the percentage of nodes involved in the links’ network; the nodal degree index provides information about the number of nodes with whom each of them is linked.

Even for centrality analysis there is an index representing the score for each node and his power is calculated on the basis of the number of links with other nodes, compared with the number of pos-

sible links; its values range from 0 (no links at all with other nodes) to 1 (links with all other nodes). Centrality analysis is based on the processes of centrality and prestige that describe the position of each node in the relational network (Wasserman & Faust, 1994). Specifically, centrality process describes the active role in the participation network through the calculation of messages production; prestige process describes the social validation of participants through the calculation of messages receipt.

In this version of PNA, centrality process refers to the eliciting power of a positioning, a positioning with a high centrality elicits most of other positionings; whereas prestige process refers to the strategic role of elicited positionings. A positioning with a high prestige is elicited by most of other positionings. Therefore centrality analysis identifies positionings crucial for the Self as they are tied to most of other positionings.

After the categorization of each message through the grid of categories, the second stage has allowed, first, to identify the presence and the direction of links among positionings; and second, to illustrate the positionings repertory of each group, through the density analysis, and crucial positionings in the repertory, through the centrality analysis.

The last stage of analysis deepens the outcomes, by re-reading them according to three levels that highlight the dialogical interplay of identity: individual, interpersonal and community. The individual level examines the dialogue among positionings within a single individual; the interpersonal level shows the dialogue among positionings of different social actors; and the community level connects all the individual and interpersonal positionings of community members.

The positionings' links, coded in the second stage, are categorized according to these levels:

- a. all links among positionings of the same member are summed up and coded as individual level;
- b. all links among positionings of different members are summed up and coded as interpersonal level;
- c. all the individual and interpersonal positionings of members are summed up and coded as community level.

This last analysis for identity's levels attempts again to adjust the methodological tool to Hermans' conceptual framework. Dialogical Self Theory states that dialogue is the exclusive kind of relationship both inside the individual – whose different inner voices are connected in dialogic relationships – and outside the individual – where voices of other social actors interact through dialogic relationships. But this analysis for identity levels aim to adjust the methodological tool to other conceptual sources, too. Advances in Positioning Theory (Harrè et al., 2009; Tan & Moghaddam, 1999) underline the importance of group membership in positioning processes; Goffman's footing (1979) emphasizes the significance of alignment in relational frameworks and Vion's enunciative positioning (1995) marks the degree of involvement in such community frameworks.

The PNA in blended communities: The network of real and virtual positionings

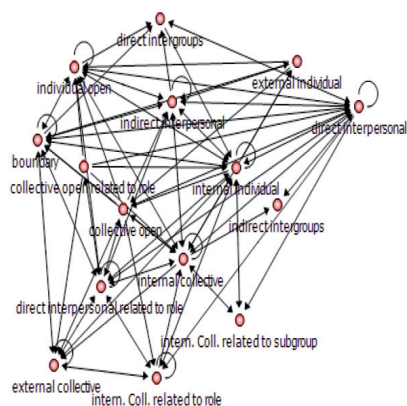
The use of PNA in three blended communities of our research provides very interesting results, showing the potentialities of this dialogical device in the study of identity dynamics.

In particular, the density analysis lets us compare the identity repertoire of every community in the online and offline environments. Such comparison illustrates the essential role of interaction context in identity dynamics (Annese, Traetta & Spadaro, 2010), for instance in the second group (see Figg. 1-2).

The range of positionings is more extensive and uniform in virtual environment than in real one. The online environment's density index shows higher values than the offline ones as there are no isolated nodes (nodes that have no links with other nodes) and each positioning is well linked to other ones.

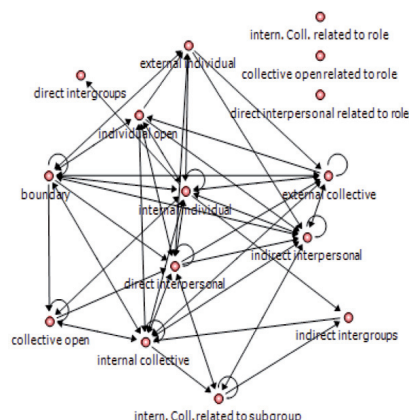
Density analysis

Fig. 1. Online environment – group 2



Density index: 0,471

Fig. 2. Offline environment – group 2



Density index: 0,290

The difference between these two networks discloses the virtual environment's potential that enables all identity voices to express and experiment with the multiplicity of self. This result supports studies about Dialogical Self in technological contexts (Annese, 2002; Ligorio & Hermans, 2005), where technological artefacts amplify the chances to experiment dialogical selves, and it definitely confirms virtual environments as “laboratories of identity experimentations” (Turkle, 1996).

The centrality analysis also gives interesting outcomes, as the two-fold dimension – personal and social – of identity represents a pivotal moment for construction dynamics. For example in group 3 (see Figg. 3-4), in both contexts identity network seems to be centred upon individual dimension, but at the same time the centrality index of social positionings is relevant.

Centrality analysis

Fig. 3. Online environment – group 3

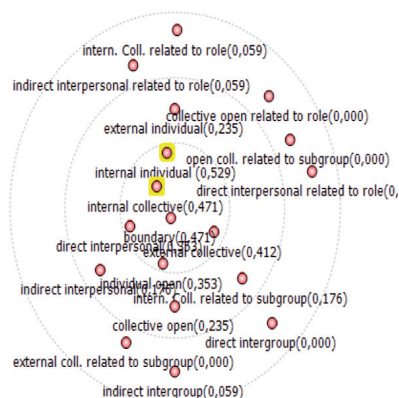
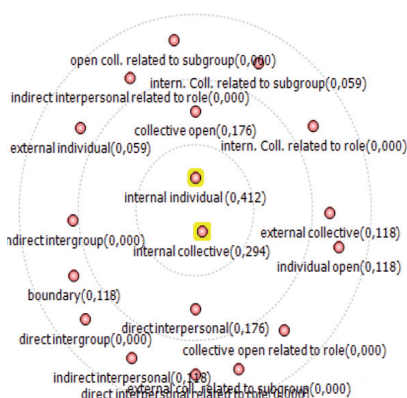


Fig. 3. Offline environment – group 3



In both settings, the otherness of social positionings (through different values related to the specific interaction context) is vital for the construction of the self. The sense of community is fundamental in the construction of individual identity. When describing their individual identity trajectory, members often refer to collective experiences through a strong sense of belonging: *“I became an e-learning expert through the course we followed”*. By this assertion, the speaker acknowledges the importance of his/her belonging experience to a community enabling him/her to better develop e-learning skills. Consequently he/she restructures his/her own identity according to a new status positioning him/herself as an “e-learning expert”.

The constant reference to the Other as an essential element for identity building, also leads to an ongoing reconstruction of the individual’s social identity. In the same way, Other is an essential reference for the continuous negotiation of the collective identity as the outcome of single community members’ identities. Participating in and belonging to a community implies the sharing of a common space where one’s individual character is available to the others, an inter-

subjective space where boundaries between individual and group are overcome through the plot of identity construction. Our research discloses how blended communities are able to foster such space, creating a two-way flow between online and offline setting, self and other.

In particular, the analysis of identity levels contributes to a deeper investigation of how the interaction context is essential in building processes of identity. Online, there is a greater number of links among positionings of the same individual whereas offline, links between positionings of different members are more numerous. Therefore online context marks a dominance of the individual level, looking towards alterity; whereas offline context marks the prevalence of the interpersonal level, looking towards individuality.

In virtual context, 'other' voices are embedded in the 'self', so highlighting the social nature of dialogical identity. In real context, an exchange of experiences at the interpersonal level emphasises the dialogical interplay of identity construction.

Conclusion

The methodological device here proposed is dialogical itself as it lets qualitative and quantitative methods engage in a debate. Additionally, it is a dialogical device as it lets individual and collective positionings converse. It also lets online and offline settings talk.

The PNA device can be considered a quantitative tool used in a qualitative way and, in this sense, it is a blended methodology. Its blended nature is given by the integration of a quantitative tool – SNA – with a qualitative technique – qualitative content analysis. Their combination allows us to schematically represent identity configuration, starting from the dynamic process of identity building.

PNA is very helpful in verifying the link between individual and collective positionings. By confirming the dialogical pattern of individual identity construction, it is able to highlight the individual contribution to the community's identity construction.

The plot of individual and collective positionings is particularly stressed by PNA in blended communities. It allows to observe the

positionings' combination in the two different interaction contexts, but above all it allows to get information about their useful integration in learning communities. Learning becomes a social event favouring learners' changes, not only for new abilities' appropriation, but also for new identity resources' experience (Ligorio, Annese, Spadaro & Traetta, 2008).

Finally, PNA is a dialogical device because it lets different theories – Dialogical Self and Community of Practice – communicate. Our research findings discloses the relationship between the dialogic construction of identity and the negotiation of community practices. Participating in social communities is a decisive resource for individual identity trajectory (Wenger, 1998), as it triggers a sense of belonging to the community that is part of members' identity. Participating in blended communities triggers a double sense of belonging to the mediated and direct community, that makes contextual elements part of members' identity trajectories.

The dialogical ability of connecting different methods, positionings, contexts and theories makes PNA a versatile tool for studying identity dynamics. Of course, for its innovative nature, it has some weaknesses that need to be addressed. For example, the static representation provided for a process-oriented dimension is a contradictory feature. It could be integrated by an in-depth tool like discourse analysis, that is able to examine the dynamic nature of the investigated processes.

In conclusion, methodological debate about dialogical perspective for identity study is only in its infancy and every new contribution represents a step towards dialogue.

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