Human Resources and Knowledge Management Based on E-Democracy

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ONLINE RESEARCH AND E-DEMOCRACY

Correspondence between everyday and scientific life is a blessing (Warren & Jahoda, 1966). Although virtual communities are nowadays widely expanded, research online is not fully developed yet, as methodological approaches are not designed specifically for online research. In addition, the results from the evaluation and the reports do not find an immediate space of use. As such, the researchers use methodologies that deal with online situations borrowing methods and techniques from the "real" ones. Although the adaptations have the same principles, there are limitations due to the virtual nature of the research. In addition, multi-disciplinary approaches characterize virtual communities as different fields interact, such as learning approaches, psychology of the individual and the masses, sociology, linguistics, communication studies, management, human computer interaction and information systems. As a result, there is no methodology that, solely used, could bring results for adequate evaluation and implementation of the results in the community. Due to this complexity, we suggest Real Time Research Methodology based on Time-Series Design to study process-based activities; Focus Groups Methodology and Forum Messages Discourse Analysis as two of the most vital parts in the use of a multi-method. The other parts will depend on the nature and culture of the selected virtual community. Both focus groups (FG) and Forum Messages Discourse Analysis are referred as Extraction Group Research Methodology, or X-Groups. The reason for using X-Groups is the actual implementation of members' suggestions into their environment as an interaction into an immediate space of use.

X-GROUPS METHODOLOGY

The individualistic bias of the researcher can be partially overcome by research methods that either engage with people in the social contexts of their lives (such as participant observation) or by questioning them collectively (as in discussion groups of various kinds) (Livingston, 2000). We suggest the wide use of FG of experts as the first approach that has the potential to deliver useful results from the users for the users in virtual communities. FG spring from the active members identifying the important actors based on social network Analysis. FG are contrived settings, bringing together a specific sector to discuss a particular theme or topic, where the interaction within the group leads to data and outcomes (Cohen, Manion, & Morrison, 2000). The reliance is on interaction within the group who discuss a topic (Morgan, 1988), and it is from the interaction of the group that the data emerge. In virtual communities' research-contrived nature, which, according to Cohen et al. (2000), is a limitation, is not so here because the nature of the group is completely natural. As such, FG discussions could be economical in time, yield insights for the discussion topic, have practical and organizational advantages, and bring people together with different opinions or different collectives. In addition, they produce a large amount of data; develop, generate and evaluate the produced data; and gather feedback simultaneously. A strategic plan is needed to identify the actors, the common context and the shared vision to result in a successful intervention. The actors are the individuals who meet the objectives for virtual communities and are able to recognize, deliver new ideas and contribute to the community development and evolution. Extraction of both individuals and data gave the name to the methodology as X-Groups. Following the same democratic principle in X-Groups methodology, patterns recognition, tags and codes are suggested to derive members' suggestions from a pilot study before the main study. The pilot will give the basic tree of tags in order to code the main study towards the ultimate goal of construction of reports based on FG suggestions. X-Groups head toward articulation of a collective reality that encompasses individual views, problems and underlying causes of the problems and solutions, as suggested by the members of the studied community.

X-Groups use Real Time software that has the potential to provide valuable help and economy of time for both the identification of actors and their suggestions. The systemization of the results and the construction of a skeleton could be conducted supporting both the inductive (looking for patterns and associations) and deduc-

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tive (propositions reached hypothetically) extractions. Research methods borrowed from sociology and software such as "netminer" for Social Network Analysis (SNA) can give the map with the actors and their activities. "ATLAS.ti" for Discourse Analysis (DA) could assist with the identification of tags and code-trees as well as the identification, extraction, indexation and categorization of members' suggestions. Unfortunately, nowadays software for knowledge management is still in a primitive stage, with limited semantic search and automatic indexation. As such, there are two levels of identification and assessment:

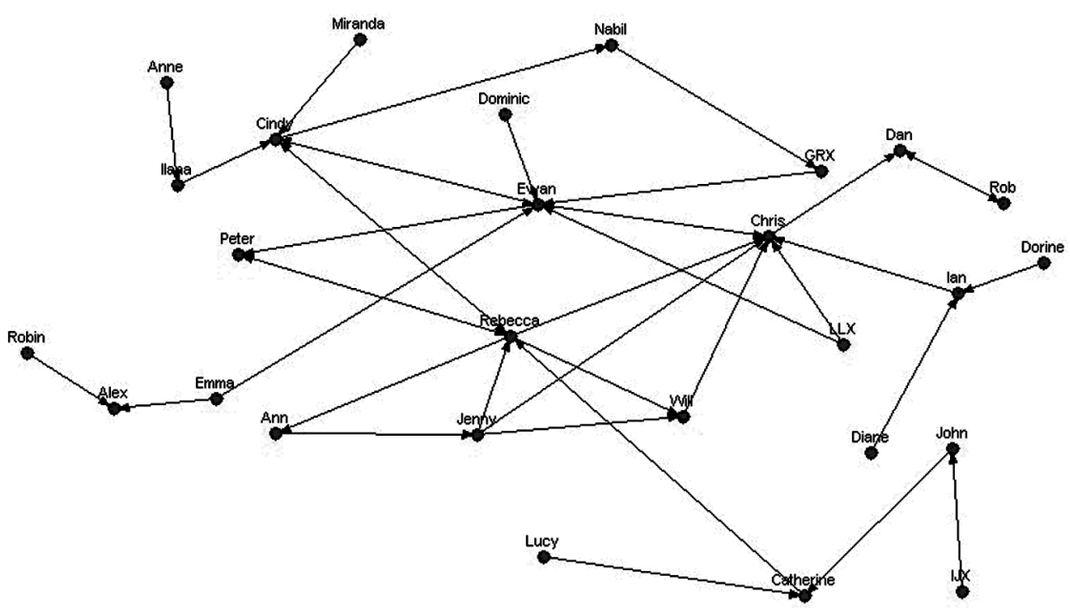
1. SNA and DA on the virtual communities level for FG identification and all members suggestions
2. SNA and DA on the FG level for FG suggestions.

The results would portray the souls of the organization and common visions.

IDENTIFICATION OF ACTORS VIA SNA

Following Shneinderman's (1998) concept on information visualization, the decision was made on the use of SNA as it depicts social relationships between a set of actors (Baroudi, Olson, & Ives, 1986). One of the goals of SNA is to visualize communication and relationships between members through diagrams. Following Zaphiris, Zacharia and Rajasekaran (2003), SNA is backed up by social sciences and strong mathematical theories such as graph theory and matrix algebra, which makes it applicable to analytical approaches and empirical methods. SNA uses two approaches; namely, ego-centered analysis and whole-network analysis. In ego-centered analysis, the focus is on the individual rather than on the whole. SNA uses various concepts to evaluate different network properties (Baroudi et al., 1986), such as centrality, the assessment of the power of an actor based on the number of alters that actor is directly connected to, connectivity and cliques. A clique is a subset of actors in a network who are more closely tied to each other than to the other actors who are not part of the subset. Comparison of the graphs illuminates members' roles in the communities in order to identify their interests and their areas of best practice. We used a GUI-based SNA tool called Netminer for Windows. Cyram NetMiner II is an innovative software tool for exploratory network data analysis and visualization. It provides visualization of the social network structures and positions of actors within the network using sociograms, which are graphs with nodes and lines for actors and ties respectively (Netminer, 2003). An example is provided from a study on an online community of online community managers. The degree in Figure 1 (Freeman, 1979) refers to the number of ties to others in an adjacency matrix. There were 47 nodes from 26 participants. Cindy, Rebecca, Chris and Ewan seemed to receive more responses in both Figures 1 and 2. Chris sent only one message, but this message created lots of objections and suggestions.

Figure 1. Discussion network nodes



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