

COMMUNICATION: A VITAL TOOL TO COMBAT CYBER CRIME

Nick Nykodym, PH.D.

Management Department
College of Business Administration
The University of Toledo
Toledo, OHIO 43606-3390, U.S.A.
nick.nykodym@utoledo.edu

Robert Taylor, M.B.A.

Abstract: Increasingly, the Virtual Organization (V.O.) is becoming a typical part of the business environment. Business partners and co-workers no longer need to be able to shake hands in order to effectively work together. The Virtual Organization takes on many forms and definitions; it also relies on many forms of electronic communication. These communications and their challenges vary greatly from those in traditional organizations. Many processes are currently in place to deal with communication challenges in virtual organizations. However, a great deal of improvement is still possible. This article will review the virtual organization, its attractiveness as an organizational model and its place in today's organizational world. The article will conclude with a Transactional Analysis (T.A.) approach to communication issues in virtual organizations.

Key Words: Transactional Analysis, T.A. ; The Virtual Organization, V.O.;The Traditional Organization, T.O.;Communication issues;Communication challenges;Electronic communication;Employee trust;Professional interactions;Professional expectations;Digital Forensics

INTRODUCTION

A great deal of research exists in the area of virtual organizations. Their strengths and weaknesses, their general variance from traditional organizations, and (most importantly for our purposes) their challenges in communication, are all well documented. Lacking, among other things, is an understanding of the potential application of Transactional Analysis in Virtual Organizations. Transactional Analysis has traditionally been defined as "a system... based on the analysis of transactions and chains of transactions as they actually occur..." (Berne, 1966) and can have significant applications in today's virtual organizations. Today, a considerable amount of organizational interaction takes place electronically. Virtual Organizations may be making a very costly mistake in leaving to chance the ability of workers to effectively recognize and accommodate the differences between traditional and electronic communications.

Today's world requires from organizations, big and small, a certain amount of electronic comprehension. While many large corporations host huge electronic networks, websites, video conference centers and electronic storage capacities; even businesses at the other end of the continuum must be able to perform smaller-scale electronic functions such as email, electronic transactions and database tasks. Being able and willing to take part in virtual communications like electronic conferencing, video conferencing, and training forums has become a golden opportunity for opening new contact doors and facilitating organizational communication. Today's world is increasingly based on indirect electronic interactions. Of course, individuals must still be able to adequately interact face-to-face with colleagues, and one could possibly even argue that electronic communication is not yet an "essential" aspect of today's communication world. However, the advantage of being competent, even expert, in both traditional and electronic (virtual) professional interaction is quite obvious.

Although Virtual Organizations differ in many ways from traditional, many of the same obstacles for effective communication remain and often become amplified. Research is mixed: some suggest that communication is more effective in V.O.'s while other suggest it is less (Ariss, Nykodym, & Cole-Laramore, 2002). The very nature of the V.O. makes it more susceptible to miscommunication and some researchers suggest that virtual communication may even impair the ability to gain a clear picture of the person on the other end (Muhlfelder, et al, 1999). Many V.O. problems stem from communication challenges. Trust, teamwork, information flow, and articulation all stand to suffer in V.O.'s that lack strong guidelines, training and structure. However, Transactional Analysis has been shown to be an effective mechanism for improving these issues (Nykodym, 1978).

The Virtual Organization

At the hub of the world's drive towards electronic vigor is the Virtual Organization. The term "Virtual Organization" has been defined in as many ways as the functions that these organizations perform. For the purposes of this article, the term "Virtual Organization" is used to mean: an organization "in which (business) partners and teams work together across geographic or organizational boundaries by means of information technology", (Ariss, Nykodym, & Cole-Laramore, 2002). Today, with the adoption of operating systems like Linux and with companies whose sole core competency is creating advantages through virtual performance, the trend toward electronic vitality will continue. It is fully believed by some that the V.O. will eventually come to: "define work in the twenty-first century as the industrial organization defined it in the twentieth" (Malone and Laubacher, 1998).

The attractions to the organizational "virtual format" are endless. With more employees working from home, the costs of facility rental and maintenance can be greatly reduced, even eliminated (Kock, 2000). But the immeasurable flexibility that comes with being able to work over cyber-space is the main appeal. This flexibility allows the V.O. to quickly modify processes, relationships, and functions as demands shift (Desanctis and Monge, 1999). Companies are able to gain tremendous capability variety by collaborating interdepartmentally and across organizational boundaries (Weisenfeld, Fisscher, Pearson, and Brockhoff, 2001). To a very significant extent, the virtual organization may also reduce such barriers as racism and sexism. In removing visual interaction, perceptions will change (Cohen, 1997).

As with all organizations, Virtual Organizations must deal with the vast mountain of communication challenges that can plague productivity. V.O.'s however, must cope with the added challenge of communication through wires. V.O.'s are more sensitive to the fact that communication must be clear and effective the first time: once "send" is hit, the message, fax, video, document, or file, is on its way. This fact alone should be realization enough for V.O.'s to take caution. Couple this with the awareness that V.O.'s typically attempt to implement many of the traditional aspects of today's work environment while reducing the influence of vertical hierarchy and the concerns become even more obvious. For example, V.O. work teams (a popular concept in today's traditional business environment) are often comprised of individuals with varying titles and ranks and are formed across boundaries to work in parallel on projects. This can create significant rank discrepancies within the "virtual team". "Virtual teams" are commonly defined as groups of uniquely skilled individuals collaborating together, often times in different locations and/or organizations to accomplish mutually beneficial tasks through electronic communication (Kirkman & Mathieu, 2004). Indeed, today's technology allows virtual team members in New York and Tokyo to work together as easily as members in Chicago and its suburbs.

It is critical that changes in communication demands are accompanied by changes in training and technique. No longer can workers depend on traditional body language, facial expression, and tone to provide non-verbal clues and fill in holes left by traditional interaction. As one article states: "it has become apparent that traditional organizational models are poor matches to emerging new ways of doing business. Further, increased connectivity has enabled new organizational models" (Rouse, 1999). As new business means allow workers new levels of dependence and freedom, strong emphasis must be placed on the traditional competencies of accountability, adaptability, and trust (Creating Successful Virtual Organizations, 2000).

Current Trends for Increasing the Effectiveness of Communication in Virtual Organizations

In addition to a healthy supply of research and publication, several organizational practices currently address communication in V.O.'s. Enhanced virtual employee freedoms force the virtual organization to better manage communication channels than in the traditional organization. A wide range of initiatives have been adopted by V.O.'s in this effort. Some work teams make it a rule to physically meet on occasion to ensure a certain level of intimacy amongst colleagues and ensure subordinate workers. However, this may be unrealistic for members working across the country or across the globe. There are also V.O.'s that literally develop team-based mission statements and value systems. However, these types of shared values and missions may prove difficult to support due to the potential temporality of the relationship and the seniority of "home company" values and individual goals (Grabowski and Roberts, 1999). In larger organizations, techniques such as requiring upper level management to "log-in" regularly, send friendly (non-work related) messages or updates to remote workers, or provide casual face-to-face interaction opportunities (for example: conferences and company parties) are used in an attempt to create the feel of a traditional organization and to develop rapport amongst virtual co-workers (Cohen, 1997). Organizations may also adjust hiring standards in the belief that some workers are just not "cut-out" for virtual work (Shin, 2004).

Another technique to increase communication effectiveness is the utilization of electronic monitoring systems. Some companies, in the absence of a developed trust or in an effort to curb misuse, apply monitoring

restraints upon virtual workers. Requiring workers to be “logged-in” during certain hours, scrutinizing and limiting webpage access, reviewing correspondence, and placing limitations upon communication content are steps that organizations take to ensure professional and productive virtual work. However, continued electronic monitoring can have negative effects on employee. Monitoring employees can impact productivity, morale and trust (Ariss, Nykodym & Cole-Laramore, 2002). Unfortunately, the needs must be balanced, as without the proper role of management, economic losses as well as illegal activities can also be a reality (Nykodym & Taylor, 2004; Nykodym & Taylor, 2005). Many international communities are currently attempting to play legal and contractual “catch up” with cyber-crime legislation and contract updates with global cyber-organizations (Africa News, 2005; EMEA Press Centre, 2005).

Transactional Analysis in the Virtual Organization

Much effort is needed to adjust to the trend toward virtual organizations. Processes must be implemented that will combine the opportunities of Virtual Organizations with the comforts and reassurances of traditional organizational models. So: what can be done to promote and ensure consistently professional and dynamic interaction in the virtual organizations of the future?

As indicated before, Transactional Analysis was defined by Berne in 1966 as “a system... based on the analysis of transactions and chains of transactions as they actually occur...” Transactional Analysis has a proven track record in the improvement of supervisory behavior communication. In a rigorous pre test, post test control group research design completed in an organizational context, Transactional Analysis achieved statistically significant results (Nykodym, 1978). Supervisory behavior through increased listening, approachability, and team work and information flow were all achieved at a statically significant level of .004 (Nykodym, 1978).

Much of cyber crime is rooted in the fear of computers by supervisors (Nykodym, Simonetti, & Christen (1988). Managers who lack computer skills must trust employees even if the confidence is unmerited (Nykodym, Miners, Simonetti & Christen (1989). Whether it is called Cyberphobia, Computer Apprehension, Computerphobia, Computer Anxiety, Computer Vertigo, or Terminal Anxiety, those in power positions need to develop their computer skills as well as their people skills. These skills can be built via Transactional Analysis (Nykodym, 1978).

It has been shown that an entire organization can be aided by Transactional Analysis in Organization Development applications (Nykodym, Nielsen, & Christen, 1985). Team Skills Training led to improved conditions for employee growth and organizational climate, as well as increased flow of job-relevant information (Nykodym, Nielsen, & Christen, 1985).

Continuing research on Transactional Analysis has continued to confirm the effectiveness of previously published studies which show equally outstanding results for Quality Circles in which perceived co-worker communication is reflected by increased satisfaction with peer support, peer goal emphasis, work group facilitation, and co-worker interaction facilitation were achieved (Nykodym, Ruud & Liverpool, 1986). Continued research on Transactional Analysis found additional positive results by increasing worker satisfaction with organizational decision making (Nykodym, Ruud & Liverpool, 1987).

The ultimate Transactional Analysis goal for any organizational project or change should be to maintain consistent Adult-Adult interaction. Nykodym, Longenecker and Rudd, (1991) showed Transactional Analysis once again effective by increasing workers’ perceptions of group processes. The criterion level (alpha level) of 0.05 was achieved in this rigorous research study comparing groups who were trained with Transactional Analysis to a control group which did not receive Transactional Analysis training in a work environment.

More recent research has also tied Transactional Analysis to effective mentoring. The use of Transactional Analysis as a mentoring aid was shown to be very effective particularly with regard to anger and disowning of self, of the group and of the organization (Nykodym, Freedman, Simonetti, Nielsen, and Battles, 1995). Applying Transactional Analysis to a Virtual Organization is helpful and indeed even necessary due to the naturally casual and relaxed aspect of electronic interaction. Given the reduction of traditional supervisory restraints and monitoring, V.O.’s must make it essential that their members maintain an appropriate level of formality and professionalism. This scenario goes beyond the typical looseness and casualness commonly used in email and telephone dialogue. The importance of formality reinforcement can be seen with a simple analogy between the V.O. and the traditional organizational setting: imagine one co-worker sitting in his/her living room in pajamas working on a computer in San Francisco relaying information to group of executives in a New York City board room.

Also essential is the formation of a contract(s) (formal or informal) between employee and the organization. A contract in this aspect refers to a specific “bilateral commitment to a well-defined course of action” (Berne, 1966). With the delicate foundation of the V.O., it is imperative that the individual constituents understand what they are trying to accomplish as a group, what each member’s responsibilities are, and what the standards are for outputs, timeliness, and most importantly, communication. Without a contract and a firm grasp on the purpose of

the working relationship, any organizational change or initiative (in this case the application and utilization of virtual advantage) may be destined for failure (van Poelje, 1994). A strong background regarding purpose and function of the virtual relationship will allow the working members to function with the best intentions of the group in mind while still maintaining autonomy. This balance then becomes the backbone of the V.O.

Contracts should "... define who the client is, what the problem is, what the focus of intervention will be, what the ability to exert influence is and what kind of relationship the client and consultant have" (van Poelje, 1994). The proven track record of achievements by Transactional Analysis consultants with clients is an excellent model for managers and employees in modern and future virtual organizations. The challenges of distance and time separation that are the reality of virtual organizational living can be overcome by organizationally directed and applied Transactional Analysis programs. All human organizational components (members, teams and external partners) using information technology and working together across geographic or organizational boundaries can now be aided by Transactional Analysis consultants who contract by defining the client, the problem, and the focus. In this global society, virtual organizations can exert influence and yet develop the trusting relationships needed to be truly effective and productive (Nykodym & Marsillac, 2007).

Given the evolving virtual and fluid state of many of today's organizations, the traditional challenges of effective communication can arise exponentially. Indeed, Virtual Organizations, V.O.'s, often experience communication challenges at a much faster pace and at a significantly higher degree than Traditional Organizations, T.O.'s. Transactional Analysis (T.A.) is proposed as an effective system that can address and ameliorate many of these challenges. Ensuring a focus on promoting dynamic professional interactions at the V.O.'s of today and tomorrow can realize improvements across the entire organization by leveling and standardizing interaction and relationship expectations.

References:

1. Africa News. (April 2005). Southern Africa; SADC Laws Covering Internet to be Harmonized, <<http://allafrica.com/stories/200504140479.html>>. October 21, 2005.
2. Ariss, Sonny; Nykodym, Nick; and Cole-Laramore, Aimee. (2002). Trust and Technology in the Virtual Organization. *SAM Advanced Management Journal*, Vol. 67, pp. 22- 25.
3. Berne, Eric. (1966). *Principles of Group Treatment*. New York: Grove Press.
4. Burn, Janice and Barnett, Martin. (1999). Communicating for Advantage in the Virtual Organization. *IEEE Transactions on Professional Communication*, Vol. 42(4), 215-220.
5. Cohen, Sacha. (1997). On Becoming Virtual. *Training & Development*, Vol. 51(5), 30-35.
6. Creating Successful Virtual Organizations (2000). *Harvard Management Communication Letter*, Vol. 3 (12), 10-12.
7. Desanctis, Geraldne and Monge, Peter. (1999). Introduction to the Special Issue: Communication Processes for Virtual Organizations. *Organization Science: A Journal of the Institute of Management Sciences*, Vol. 10 (6), 693-704.
8. EMEA Press Centre. (October 2005) Spammers Beware: Microsoft and Nigeria Team up to Fight Cyber crime. EMEA Press Centre. <<http://www.microsoft.com/emea/presscentre/nigerianmouts.Mspx>>, October 24, 2005.
9. Grabowski, Martha and Roberts, Karlene H. (1999). Risk Mitigation in Virtual Organizations. *Organization Science: A Journal of the Institute of Management Sciences*, Vol. 10 (6), 704-722.
10. Harris, Thomas. (1974) *I'm OK- You're OK*. Boston: G.K. Hall and Co.
11. Kirkman, Bradley L. and Mathieu, John E. (2004). The Role of Virtuality in Work Team Effectiveness. *Academy of Management Proceedings*, p. L1, 6p.
12. Kock, Ned. (2000). Benefits of Virtual Organizations from Distributed Groups. *Communication of the ACM*, Vol. 43(11), 107-112.
13. Malone, Thomas W.; Laubacher, Robert J. (1998). The Dawn of the E-Lance Economy. *Harvard Business Review*, Sep/Oct98, Vol. 76 (5), 144-152.
14. Muhlfelder, M., Klein, U., Simon, S., and Luczak, H. (1999). Teams Without Trust? Investigations in the Influence of Video-Mediated Communication on the Origin of Trust among Cooperative Persons. *Behavior and Information Technology*, Vol. 18(5), 349-360.
15. Nykodym, Nick. (1978). Transactional Analysis a Strategy for the Improvement of Supervisory Behavior. *Transactional Analysis Journal*, Vol. 8 (3), 254-258.
16. Nykodym, Freedman, Simonetti, Nielsen, & Battles, (1995). Mentoring: Using Transactional Analysis to Help Organizational Members Utilize Their Energy in More Productive Ways, *The Transactional Analysis Journal*, Vol. 25, 164-173.
17. Nykodym, Nick; Longenecker Clinton O.; and Rudd, William N. (1991). Improving Quality of Work Life with Transactional Analysis as an Intervention Change Strategy. *Applied Psychology: An International Review*, Vol. 40, 395-404.

18. Nykodym, & Marsillac (2007) The Managers Guide to Understanding, Detecting, and Thwarting Computer Crime: An International Issue. Published in The Proceedings of NBES (The National Business and Economic Society) International Meeting 2007.
19. Nykodym, Miners, Simonetti, & Christen (1989) COMPUTER
20. PHOBIA TECHNOLOGICAL ADVANCES CAN CREATE WORKER
21. APPREHENSION, Personnel Administrator, 34, 54-56.
22. Nykodym, Nielsen & Christen. (1985). Can Organization Development use Transactional Analysis? Transactional Analysis Journal, 15, 278-284
23. Nykodym, Ruud & Liverpool. (1986). Quality Circles: Will Transactional Analysis improve their effectiveness? The Transactional Analysis Journal, 16, 182-187.
24. Nykodym, Ruud & Liverpool. (1987). Transactional Analysis: Can it improve worker satisfaction with organizational decision making, The Journal of Systems Management, 38, 18-21
25. Nykodym, Simonetti, & Christen (1988) COMPUSTRESS: (c): THE FEAR OF
26. COMPUTER USAGE AMONG COLLEGE OF BUSINESS ADMINISTRATION
27. STUDENTS, The Journal of Applied Business Research, 4, 84-87.
28. Nykodym, Nick & Taylor, Robert. (2004). The worlds current legislation efforts against cyber crime , CLSR Computer Law and Security Report, Vol. 20, 390-395.
29. Nykodym, Nick & Taylor, Robert. (2005). Criminal profiling and insider cyber crime , CLSR Computer Law and Security Report, Vol. 21, 408- 414
30. Rouse, William B. (1999). Connectivity, Creativity, and Chaos. Information Knowledge System Management, Vol. 1 (2), 117-132.
31. Shin, Yuhung. (2004). A Person Environment Fit Model for Virtual Organizations, Journal of Management, Vol. 30 (5), 725-744.
32. Van Poelje, Sari. (1994). Contracting for Organizational Change. The Maastricht Paper
33. Weisenfeld, Fisscher, Pearson, and Brockoff. (2001). Managing Technology as a Virtual Enterprise. R&D Management, Vol. 31 (3), 323-334.