The Role of Interactive Cooperation in Solving Global Problems

/The effects of interactive communication/

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Abstracts:

In this paper we review the role of interactive media and communications to define and solving global and complex problems that affected the European space.

We are describing the problems and challenges to the modern society and organizations for developing new approaches to the communication media and using effectively the new interactive technology as well as social networks, tagging, semantic approaches, information agents, web 2.0, interactive mapping for sharing knowledge and ideas about potential problems and their threats to the citizens.

It is a well known situation that the XXI century society is facing an increasing series of complex problems, as: technology increasing complexity, globalization, shortage of natural resources, climate change new economic players, market instability, ethnical crisis, corruption and frauds and information overloaded. In this case interactive communications play key role to analyze and planning to limited problem's effect on the people.

The contemporary global and complex problems, unlike the problems in the recent past, require more intellectual and technological resources to be effectively solved or minimize threats for people. For this goal we needed actively sharing information and - already knowledge, building a special professional networks based on competency, intensive and interactive communications. From this point of view is important establishing a system for analysis of complex problematic situations, which consists of

several important interrelated elements:

Ø Education, training and management risks and problems.

Ø Preparation of the teams, networked with professional knowledge and skills.

Ø Construction of integrated interactive, information systems linking to critical points importance of regional infrastructure.

Ø Create a modern media platforms / interactive and virtual exchange of information, data and knowledge, such as wikis, twitter, podcasting, RSS, tagging, digging, YouTube, semantic portals.

Ø Construction of public info centers

Ø Preparation of interactive maps with hazardous critical areas in the country and different areas, showing the threats directions of distribution.

Ø Formation subsystem analysis of potential problems with the work priorities and most vulnerable groups / not everything can be controlled.

Ø Construction of semantic networks to monitor reality and automatic response to threats in real time / natural and technological hazards.

Ø Development of a budget framework / priorities and significant potential hazards, updating networks.

Ø Preparation of Applied networks for sharing knowledge and information with leading European institutes and universities.

Ø Evaluation of the effectiveness of the plans at real risk and crisis management / improvement of their practical application.

The modern risks, threats and problems suggest using of a new approaches to training,

structuring of information and transfer of knowledge in the appropriate format accessible to the people.

Essential for the prevention of environmental problems caused, for example, on climate change is establishing a reliable system for e-learning, as knowledge-based, and the new web 2.0 technologies. For this purpose, individual teams or individuals dealing with the prevention of risks must be passed through interactive learning where they are set patterns of behavior in the future potential eco-risks. Such systems should be secured on expert, technological, intellectual, programmatic and financial level.

Information and knowledge should be accessible to all involving in the risk management in an interactive format and dynamic content. For this purpose are used modern portals, specialized social networks and social media. All these innovations allow indexing of participants in training, monitoring their activity, training and knowledge. Furthermore, experts are able to continuously update the information to create a database to share knowledge in an interactive wiki format. To note that the software for social media is open, accessible to all and with a low prices.

We'll list later and the main features of popular practice in the info-systems processing, sharing and utilization of knowledge.

In the past five years communications and interactive media also have growth, while developing models to improve the techniques developed are components of new social software that supports the extraction, storage and transfer of traditional knowledge, generating and exchanges between experts new knowledge.

There a new type of social networks, which are called interactive and bring together

specialists and experts from around the world. Networking technologies as type of second life, active worlds, wikis, digging, interactive mapping, ontology networks, machines for optimizing process in extracting data / SEO / becoming increasingly important for modern, innovative business.

One of the factors recently that influence to improve Information -Communication Technologies/ICT/ are exactly greater freedom and openness of the platforms in the exchange of ideas between scientists, experts and circulate intensive, communication flows.

The main problems that are associated with the use of interactive social networks as communication, and for doing business are few and relate to: knowledge of the characteristics of modern communications, technological literacy of consumers and the efficient use of available resources, access to the nets and barriers restricting communication, problems with clear identification of people with certain professional groups, there aren't enough of technological means in individual countries, accessibility to financial sources in order to use full resources of the networks.

Will noted that social networks corresponding with four major innovations made in the second half of last century: the concept and the invention of electronic hypertext; development and improvement of ideas for interactivity and interactive media; improve the technological characteristics of the networks with artificial intelligence, providing more democratic access to the people / at least by Western countries / as new technological ideas, and more quality content.

Interaction represents a multiple interaction in the course of communication between

users of information and communication systems. This phenomenon is more related to repetitive time communication, full commitment of the participants and continuous dialogue with the aim of generating ideas in a scientific, educational or research field. Interaction, by definition, involves the immediate active contact between students and their teachers, managers and employees joint efforts in building a database related to the training programs and studied subjects.

Will stop at several popular approaches in practice to carry out similar type of training:

- Interactive web-portals, which has yet to plan and development for training in the prevention of risks.;
- Interactive discussion in social networks
- Real contacts with experts issue of questions to which group that no have answers from employees;
- Publication of opinions of experts in electronic format and discussion of ideas, incl. generating new ideas or facilitate their wording.
- Use of appropriate technology base and software, known to students and teachers in order to fully perceive the material and communicate with each other;
- Forming groups to define complex risk problems and work in social networking.

It is a well known situation that the XXI century society is facing an increasing series of complex problems, as:

• Technology increasing complexity

• Globalization

• Shortage of natural resources

• Climate change

• Migrations

• New economic players

• Market instability

• Ethnical crisis.

Standish Group shows the following major weaknesses in now days:

• poor risk management

• poor quality management

• poor communication management.

Starting with these entry data, we will show how some

TRIZ[1] techniques can be useful to improve the global effectiveness of PM/Problem management/. The following example is based on a specific sub- process of PM, the risk management (RM).

A TRIZ way to reformulate could be that the Risk Management works, but it is not implemented by companies because of a lack of resources and knowledge. First of all let's list out RM main functions:

• To identify risks

• To find counter measure for negative risks and facilitations for positive one

• To monitor and control actions on risks

Then we can create a possible functional model, on which the functions are considered insufficient or absent.

Here are some possible TRIZ solution strategies.

1. Trim RM and fully delegate it: to the company structure, i.e. let's take it out from the project and delegate it to the company structure with a centralized function of RM; alternatively to an external entity.

2. Delegate single functions (all of them, or part of them): to external companies/experts, leaving the project team with the task to do the rest. The most demanding part may be delegated, those part requiring more endeavors may be delegated (know how, time etc) externally or to the company, the rest going to the project team.

3. The most valuable phase of RM, more demanding (time, resources, know how) may be automated by a software, facilitating the process for the project team.

Otherwise: the control function may be maintained, and could be delegated to a small RM team or to the company; if one can make tools into pieces of software, these coupled with RM specialists may do the deal.

There may be one more aspect: companies working on a single product/market would be better off investing money on RM for long term purposes: once RM is set and launched, RM for the rest of the time may become trivial. Another possible approach is to highlight the essential problem behind the risk management low penetration, as the main technical and physical contradiction. Another philosophy of TRIZ is to reuse the already established innovative solutions and customize them according to the needs. We will use some of the established TRIZ innovative solutions to solve different environmental pollution problem. Creating new kind of industries as waste management, reusing waste resources, renewable energy power sources, and carbon accounting are the new age industries

In his new book "Why should the boss listen to you? The seven disciplines of the trusted strategic advisor "James Lukaszewski[2] suggests following six steps that impose a useful, sensible management decision making structure:

a/ situation description-describe the name of the issue, problems or situation that require decision action or study;

b/ analysis and assumptions –describe what the situation means, its implications and perhaps how it threatens or represents opportunities;

c/ the goals- that provides focus, useful goals are understandable, achievable, brief, positive and time and dead-line sensitive;

d/ options- provide at least three response options to address the situation as presented and analyzed;

e/ recommendation- be prepared to make a specific choice among the options you presented;

f/ justification-every management decision or action has intended and unintended consequences that can be forecast, when we think of consequences and strategy we also try to identify the solution options.

Lukaszewski also say that most problems, although benefiting from some initial luck of action, do require some input of energy, resources, talent, and decision making if they are to be resolved. Doing something more is the notion that resolving problems, especially those that are disturbing, stressful or destructive to an organization, may require more than a minimally adequate response.

It’s also means going beyond meeting the letter of the law or the minimum taking additional steps that will further enhance organization’s reputation, assist those adversely effected, or repair a previous mistakes.

The famous inventor Doug Engelbart[3] once realized that, as a species and a civilization, we were facing serious challenges to our survival.
Now that was sixty years ago, during an era of post World War II optimism, when the limits we're facing today weren't so apparent to most people.
Those limits are a lot more evident nowadays, and our political and economic systems are poorly adapted to deal with them. We need to reengineer those systems, in dramatic ways.
To do that, we'll need to mobilize the collective intelligence necessary to figure out what needs to be done, and the collective will necessary to accomplish it.
So, how do we do that?
Engelbart's vision is crystal clear. It's a vision of human augmentation. We need to augment human capability in certain ways. In particular, we need to create -- and project our minds into -- a shared information space that works like a planetary associative memory.
And we need to populate that shared space with tools that support and amplify and extend our natural ability to analyze, visualize, simulate, decide, and act.
Another scientist as William Gibson famously said, the future is unevenly distributed. In this case, what mostly isn't here is the part where we come together in shared online spaces, with shared tools and information, to analyze, visualize, simulate, decide, and act -- on a planetary scale.

Much of what managers and supervisors do is solve problems and make decisions. New managers and supervisors, in particular, often make solve problems and decisions by reacting to them. They are "under the gun", stressed and very short for time. Consequently, when they encounter a new problem or decision they must make, they react with a decision that seemed to work before. It's easy with this approach to get stuck in a circle of solving the same problem over and over again. Therefore, as a new manager or supervisor, get used to an organized approach to problem solving and decision making. Not all problems can be solved and decisions made by the following, rather rational approach.

However, the following basic guidelines[4] will get you started. Don't be intimidated by the length of the list of guidelines. After you've practiced them a few times, they'll become second nature to you -- enough that you can deepen and enrich them to suit your own needs and nature.

1. Define the problem

This is often where people struggle. They react to what they think the problem is. Instead, seek to understand more about why you think there's a problem.
Defining the problem: (with input from yourself and others)

Ask yourself and others, the following questions:
a. What can you *see* that causes you to think there's a problem?
b. Where is it happening?
c. How is it happening?
d. When is it happening?
e. With whom is it happening?
f. Why is it happening?
g. Write down a five-sentence description of the problem in terms of "The following should be happening, but isn't ..." or "The following is happening and should be: ..."
Defining complex problems:
a. If the problem still seems overwhelming, break it down by repeating steps a-f until you have descriptions of several related problems.
Verifying your understanding of the problems:
a. It helps a great deal to verify your problem analysis for conferring with a peer or someone else.
Prioritize the problems:
a. If you discover that you are looking at several related problems, then prioritize which ones you should address first.
b. Note the difference between "important" and "urgent" problems. Often, what we consider to be important problems to consider are really just urgent problems. Important problems deserve more attention
Understand your role in the problem:

2.Look at potential causes for the problem

a. In this phase, it's critical to get input from other people who notice the problem and who are affected by it.
b. It's often useful to collect input from other individuals one at a time (at least at first). Otherwise, people tend to be inhibited about offering their impressions of the real causes of problems.
c. Write down what your opinions and what you've heard from others.
d. Regarding what you think might be performance problems associated with an employee, it's often useful to seek advice from a peer or your supervisor in order to verify your impression of the problem.
e.Write down a description of the cause of the problem and in terms of what is happening, where, when, how, with whom and why.

3. Identify alternatives for approaches to resolve the problem

a. At this point, it's useful to keep others involved (unless you're facing a personal and/or employee performance problem). Brainstorm for solutions to the problem. Very simply put,

brainstorming is collecting as many ideas as possible, then screening them to find the best idea. It's critical when collecting the ideas to not pass any judgment on the ideas -- just write them down as you hear them.

4. Select an approach to resolve the problem

When selecting the best approach, consider:
a. Which approach is the most likely to solve the problem for the long term?
b. Which approach is the most realistic to accomplish for now? Do you have the resources? Are they affordable? Do you have enough time to implement the approach?
c. What is the extent of risk associated with each alternative?

5. Plan the implementation of the best alternative (this is your action plan)

a.What steps should be taken to implement the best alternative to solving the problem? What systems or processes should be changed in your organization, for example, a new policy or procedure?
b. What resources will you need in terms of people, money and facilities?
c. How much time will you need to implement the solution? Write a schedule that includes the start and stop times, and when you expect to see certain indicators of success.
6. Monitor implementation of the plan
Monitor the indicators of success:
a. Are you seeing what you would expect from the indicators?
b. Will the plan be done according to schedule?
c. If the plan is not being followed as expected, then consider: Was the plan realistic? Are there sufficient resources to accomplish the plan on schedule? Should more priority be placed on various aspects of the plan? Should the plan be changed?

7. Verify if the problem has been resolved or not

One of the best ways to verify if a problem has been solved or not is to resume normal operations in the organization. Still, you should consider:
a. What changes should be made to avoid this type of problem in the future? Consider changes to policies and procedures, training, etc.
b. Lastly, consider "What did you learn from this problem solving?" Consider new knowledge, understanding and/or skills.
Below we are offering some principle rules for crisis communication management.
If we want to managing crisis communications we need to make following

steps[5]:

1. Create a professional team/ no more 6 people/;

2. Building a networks/ as well wikis or network like twine or twitter/ between members of team;

3. Create a semantic platform based on the Web agents for video watching

critical point and reactions in the real time;

4. Building public and media communications centers;

5. Create data base about potential crisis situations;

6. Active sharing information and knowledge with other European professional organizations;

7. Building 24 hours connections between important institutions for reactions to risk situations;

8. Communications training and actualization all existence plans;

9. During the crisis situations distributions important life saving information to the people of risks regions within several minutes/ in the frame of 10-15 minutes/;

To the end of this report we are talking about new social technologies. Social media is revolutionizing the way we communicate. The new tools and technologies represent opportunities for collaboration, knowledge sharing and engagement, problem solving that just cannot be ignored. But what results are companies seeing from using social media? What have they learned? And how can you benefit from using blogs, RSS, wikis, social networking and the various other social media tools?

Mike Love[6], communications director of the Major Programs Executive at BT Global Services, offers communicators 4 steps to help steer their organization through an unexpected external issue.

Be prepared

It's one of the unwritten rules of crisis management that crises will occur at inconvenient times. So, planning, preparation and thinking the unthinkable are keys to success.

Outside-in

This sort of tactical preparation is best executed when communicators have already become part of strategic planning processes and business decision-making because the

communication leading and facilitating roles need to be established and accepted from the top of an organization down. To be valued and make a difference to any organization, communication should be seen as a real business tool. To achieve this, communicators need to take communication skills into the boardroom or relevant decision-making forum at the earliest stage. Preparing for bad times is just as important as being proactively focused on the next promotion, product launch, contract bid or business initiative.

Inside-out

Taking a 360-degree view of the organization is equally important. Employees and other internal audiences can be the best ambassadors or the harshest critics and skeptics in difficult times. The barrier of course may be knowing what information can be shared with who and when. It may even be that there are legal, regulatory or governance restrictions to be followed, but outside these restrictions as a rule, inclusion is better than exclusion.

The challenge is to take your employees with you, so they know enough to feel included and valued but not so much that there's a risk of escalating the situation by empowering your workforce to become "doom-mongers". The solution is to ensure that external positioning and messaging is communicated internally first to build confidence, reassurance and trust.

Earn trust

The challenge for communicators and managers is to earn trust ahead of the crisis, issue or event with all relevant audiences through open and transparent, business-focused and fact-based, strategic thinking and clear-headed planning and preparation for the best and worst case scenario. Think the unthinkable.

How to use social media[7] to engage employees to define problems is the ground-breaking report on integrating social media tools into your communications:

1. Define a clear strategy for social media in your company and institution

"Your social media strategy must look unlike a traditional communication strategy. It's not an enforced strategy – full of campaigns, 'push' models, restricting and mobilizing people – but a nurturing one, providing the platform and then support."

2. Implement a best-practice corporate blogging program

3. Understand the opportunities podcasting and video casting present and learn how to get the most out of them

"No matter how good the writer, words on a page from a communication department will never get close to conveying the sincerity and depth of emotion that one 10-minute video did."

4. Use wikis for project development as a tool for collaboration

"If they have a question, we ask that they go there to see if the question and its answer have already been posted up. If it has, it's a communal piece of work – so probably a fuller, more thought-out and up-to-date answer than we could give that person off the top of our heads."

5. Understand the complexities of social media measurement
"Most of those simplistic data measures for social software – number of comments, page views, number of bookmarks and so on – won't tell you anything about outcomes. Each one of them has a value that's entirely dependent on context...remember that they only h*ave any meaning in the context of the story in which they're set."*
The recent Melcrum agency research shows that:
Percentage of respondents already using social media tools or planning to start in next 12 months:
Online video: 63%
Blogs: 55%
RSS/web feeds: 51%
Podcasts: 43%
Social networks: 41%
Top perceived benefits of using social media tools:
Improved employee engagement: 71%
Improved internal collaboration: 59%
Creating 2-way dialogue with senior executives: 47%
70% have no guidelines or policies relating to social media tools
53% anticipate an increase in their social media budget over next 12 months
Main barriers for adoption:
Gaining executive support: 23%
IT restraints & restrictions: 13%

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