



COMPUTER AIDED CONFERENCE

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Successful technological evaluations require accumulation of many different expert judgments and subjective evaluations as well as conjunction and data processing thereof. These are considered as organized technical evaluations. Occurrence of problems such as limited time that people of different ideas who are far away from each other and studying different disciplines allocate for the common subject that they have focused on is inevitable. In this article, some traps will be revealed and especially conference and decision making systems with computers or alternative systems providing rather built frames in this field will be focused on by utilizing from standard approach of face-to-face group meetings in order to discuss these issues.

Technology evaluation in other words the proposition of a new technology to the society requires economic, social, environmental, institutional fields' adaptation to that society.

All experts who are expected to make contribution to researching and defining the potential effects have an interest set that the experts in other disciplines are not able to share. Despite the information that is not sharable and that is specialized in technological evaluation, the best method for performing technological evaluation is to combine various participations that are in conflict about what the technological evaluation should with respect to its

effects in important subjects, and to try to make them discuss with each other. It would be more intense especially if it includes a practice group of social scientists, nature scientists, engineers etc... For instance, the features of latest subjects about social change and technological predictions are an enthusiastic opinion exchange between technology philosophers Henryk Skolimowski (Professor of Humanities in the Engineering School at the University of Michigan, Chair for Ecophilosophy at the University of Poland, author of Ecophilosophy: Designing New Tactics for Living) and Joseph Coates (is a world-renowned thinker, writer, and speaker on the future, writes columns for Technological Forecasting and Social Change, Research and Technology Management and Personnel Management).

According to Skolimowski;

- 1 – Actual technology evaluation is and should be a socio-moral way of reflection.
- 2 – Technology evaluation should be performed by technocrats breaking the present technology that have a very insufficient and very similar tendency of the technological project and process.
- 3 – An evaluation with quantitative approach would be more satisfying where the one with social point of view will be less valuable.

Coates has evaluated the article of Skolimowski as illogical, monotone and unbalanced. Going further, he has claimed just the opposite of the philosopher's opinion in his technology evaluation. The real expertise in evaluation of technology is being social and moral. The technical expert has been an experimental evidence as well as example for social and moral discussions by mentioning these subjects.

Skolimowski has replied to Coates's view as being poor, disrespectful and inefficient. Our intention here is not to consider what the technology evaluation means. It is not a surprise that different opinions exist. Although there are differences between the two philosophers regarding the methodological period, even there is an agreement on what the requirements to be arrived at should be. Additionally, there are two

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opinion tendencies about the experienced discussions and differences. One of them is the health protection implying social technology and the other is an emphasis that evolves on the working periods that the people attend. This is the reason why it is important to ask the right questions and the right answers including the scientific perspective for the evaluation of technology.

Making a technology evaluation that is obtained by representation as polemics conflicts with the point of view in face-to-face meetings. Generally, people wouldn't fully understand what an expert says and they don't know that the intellectuality of the expert has a second qualification. In the worst cases, face-to-face meetings are probably degenerated with the adverse effect of emotionality. Like "this is your expert, and this is mine"... The participants can't agree on a general consensus about what the important factors are.

It is beneficial to take objective steps in research and evaluation by reaching at a basic compromise on these factors. As a matter of fact, in the best cases, communication and decision making structures damage the trusted technology evaluations made in face-to-face meetings.

Disadvantages of Face-to-Face Meetings

1-Lack of Attendance: Tendencies on lack of attendance have a cumulative effect on the social organization of the group in the short run. The first one to talk creates respect. The success to get the acceptance of problem solving leads to directing to successful people who do the same thing more...

In another opinion, if we bring all our experts face to face, probably personal characteristics of one or two of the attendants will try to discuss with the others and to suppress the decision. The equal expression of taking the contrariness of the experts and concern into consideration prevents this balance and each one is represented by one or two attendants.

2-Effect of the Status and Tendency Towards Compliance: As in the experiment that Solomon Asch performed on the famous auto-kinetic effects, social psychologists know that some group members

determine a decision and view, and the others follow them, that their own decisions tell something about their group decisions being wrong and that it doesn't concern them. Another side of this situation is expressed to be agreement as two disagreements in being face to face in the group. In other words, the group follows the same thing for a long time. Rather the alternative ones research. As there are status, prestige and rank differences among the members, it is in a tendency to create a situation where a group will follow someone's decision. It is not considered whether this decision is right or wrong.

3-Time: Socially and psychologically, there are restrictions about length of time in discussing a problem in a face-to-face group. No meeting can be longer than 3 hours without giving a lunch break. Most of the attendants focus on the subject they think about. They probably acquire few opinions at the end of the session.

4-Difficult to Arrange the Meeting and Its Costs: When the decision making process is attended from various and far locations as in an interdisciplinary technology evaluation, plane, accommodation and boarding costs are quite high. The experts also have the problem of being present in the same place at the same time as the consultant of the project. The priority of serving in a technology evaluation panel is not so high as it is temporary. Part-time projects are not the center of their professional interest and reputation. It is not possible to frequently employ qualified people at the same time without prior placement.

Alternatives: Construction of the Communication Period

There are three alternatives that are being used in face to face meetings. The first one is to construct the meetings by increasing the attendance equality, maximizing the number of views and opinions, minimizing the tendency of one to act with the opinion of a group rather than his own. One form of this is Nominal Group Techniques. In the Nominal Group Meeting, the individuals take their places physically; however, they do not speak in the first part of the meeting. The problem is explained by the



coordinator. Thereafter, each person records his individual opinions in writing within twenty minutes and then everyone explains the opinions they developed. Normal discussions are made. This is followed by the voting process in recording the decisions adopted in writing or election of rank order. Therefore, the decision of the group is created. Together with this, the structure of face-to-face meeting doesn't protect listing three-four and more problems (time and time pressure problems).

Arranging Computer Aided Conference (CAC):

This system utilizes from stored information and the computer capacity function in order to provide communications between the human groups distributed in various places geographically. In order to participate, everyone sits in his terminal having a printer. The computer stores every entry of the discussion and when the information reaches at the terminal of each participant, this information is printed.

A system designed in order to provide a complete communication in the areas of science and engineering can have four different communication abilities.

Giving Message: This is a special area of exchanging information for individuals. Special messages are provided for the individuals whose addresses are given and they are confirmed by the sender and then removed from the computer.

Arranging Conferences: For exchanging and recording information and opinions on a general subject, it is the general area for an individual group. Arranging a conference can have a "simultaneous" meaning. In other words, the people who participate in opinion exchange can be in the system simultaneously, or materials are entered and called according to their credibility about the "non-simultaneous" sense. These conferences may be arranged for a week or a month. A member always participates in the discussion and the entry is made.

Book: It is a personal area for material composition in terms of using letters. The books can be used in reviewing and creating the materials that are

transferred later on to the other parts of the system as entries. One can open pages for others to read and write.

Bulletin: It is a "general public area" for reports and newsletters to be written. In the meeting declarations in these scientific articles, it can be considered to be a small newspaper that provides the content of the events that the group members are interested in, that enter the newspapers without any delay.

Additionally, the system provides the following transactions:

- 1 – An address book lists and defines all group and members.
- 2 – It allows for a powerful writing system in terms of entering and getting print-out;
- 3 – Conference entries are researched and called for reviewing in different forms. These combine with a former item in the entry date among subject, writer and entry dates or items.
- 4 – Message and conference entries can be marked with the name of the writer.
- 5 – A formal poll can be held in the form of "Yes-No", for any purpose with suggested measurements (credibility, compliance, probability).

Researches of the geographically spread engineers and scientists provide rapid information exchange about their problems. It can be designed to maximize flexibility, to facilitate the use of the user, to increase efficiency according to computer time. Therefore the system is divided into parts. The user can make bulletin, conference and message usage productive when he first combines with the system and when needed, he can learn more advanced features of it. When any damage is made to the system, the user does not do anything, and he can cancel.

If any mistake is made, retrying is requested. There are some mutual interactions of various styles. Storing and writing the commands that anyone owns is simply listed in the "Menu" in terms of an experienced user. Computer supported conference system has forms that it has created from coming

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face-to-face. A person has less tendency of pressure. Like the person that has the highest rank in the group. It occurs like that since anonymity is possible and because of the participation one will make about the subject he thought of when he is ready.

Technology evaluation is held in hand with strong measures that uses summaries of computer supported conference problems and different suggestions in each stage by combining them, and poll can be requested in proper times in every stage.

Analytic technical judgments and social value judgments of attendants like Skolimowski's humanity and Coates's scientist ship can be combined with this communication structure.

Main media that is used in present technology evaluation projects in computer supported conferencing can be interested in trying to use environmentalist view and expertise about subjects such as chemistry of the soil, environmental education expertise and representation of public benefit groups as conservative organizations with the aim of developing and evaluating new technological aid for environmental tendency. At first, face to face meetings are used, ones who attend at cocktail hours, transfer what they know to the others, sub-groups in the project groups will hold "face to face meetings" in three or six month periods. The cause of mentioning this here, is because we bring computer aided conference as the only suggestion in technology evaluations. While socializing is done with the computer aided conference system if they will not know what will happen especially in the future, it is hard to reach to the period of one learning what the other one knows with this means in the period of informal meetings of face-to-face relations. It is called "coffee and biscuit" problem in psychology. In order to overcome these limitations on the computer assisted conference system, subject conferences should be made by writing and reading. Socializing with short speeches and private messages can be done like this. Together with this, a new socializing form, or short speeches between people can be developed.

We suggest technology evaluation to be made via computer aided conference system that is supported by face to face relationships in time.

Computer aided conference system can not only be used in important discussions and decisions, it also builds the daily agendas of face to face meetings. Therefore, it is used as efficiently as it can be when these three things are provided; first, at the beginning of the project, at the end of the discussion and finally when reviewing the result report and suggestions.

It is hard to unite geographically spread team work, to support with travel, to use with present use of general communication ways like letter and telephone. Conference system helps in technology evaluation performances, researches, management projects and setting models. In efficient use of this system, groups should not exceed thirty five – forty people.

There are six stages and areas that are identical with performing technology evaluations in CAC:

- 1 – Formulating the subjects. Which subject are all reflections will be considered. How it will be stated and expressed (like discovering scientific opinions)
- 2 – Presenting technological and scientific facts. Which technical expert will tell us by presenting possible results of different views? (Like automation)
- 3 – Presenting primary values. Which ones of different results will be acceptable and which ones will not? (Like expansion of population)
- 4 – Determining the beginning status' of the subjects and their reflections: Which policies and solutions are already declined by everybody as unacceptable? Which are agreed on? Which can not be agreed on? (Like advancing area)
- 5 – Exploring and obtaining the causes of disputes. Which assumptions, views are used to support the positions about the events? (Like possibility of war and its prevention)



6 – Re-evaluation of views that couldn't be agreed on, consideration of opposing views and their causes. (Like weapon systems of the future and their prevention)

Some strict restrictions can be seen in computer supported conference round structure. These arise from different matters and are put in order.

Summary and Conclusion

Technological evaluation also requires obtaining the opposite opinions and information of experts and interest groups of various types. This probably focuses on communication structure problem between various participants in being productive and efficient of technological evaluation as much as possible. As known, computer supported conference system and process alone or its compliance with a given project is recommended much more than the confidence on communication forms which are not structured traditionally like face-to-face meetings especially in EU countries, Japan and/or USA.

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