

A Design of a Conversation for Human Inquiry into Ethical Dilemmas, Issues, and Problems of Information Systems

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Abstract

This paper maps a conversation design to facilitate the formulation of research into ethical dilemmas, issues, and problems regarding information in human activity systems. The general perspectives intended are cybernetic and systemic. Examples and case generation are to apply select aspects of praxiology and methodology for human inquiry to situate, concretize, and facilitate the conversation.

1 Introduction

This paper is ambitious, in that it attempts to weave together four strands. The bundle represents different human interests and potential uses of the conversation design.

The first strand is the subject of ethics in human organizations. We can describe and discuss this subject in terms of ethical dilemmas faced by individuals and the kinds of ethical problems such dilemmas may surface for not only those who become cognizant of them, but also those comprising the human activity system as a whole. The general interest here is to examine some of those dilemmas and problems that share in common the generation, use, and management of information.

The second strand is about pedagogy. Educators, trainers, team leaders, facilitators, and consultants have a stake in know-how that assists them to move conversation towards the collective objective. Information is the life blood of conversation. Means to exchange and use it are vital to the design and continuance of the conversation. Practices that work persons and groups in conversation, to orchestrate the process towards fulfillment of a purpose, objective, and group defined end, parallel the implementation of the conversation design.

The third strand is the application of methodology and praxiology to human inquiry. Given the centrality of human conversation in most systems research methods for organizational contexts, conversation designs are critical and core pieces to maximize chances of successful implementation of a systemic method.

The fourth strand is the study of conversation design as a neglected subject area of research in systems methodology. Although the paper delimits itself to a specific subject focus, it is intended that articulation of

specific examples and cases may reveal aspects of a more generic nature to the design of conversations in general.

We know the separation of these strands is rather artificial in a given conversation. We must keep this fact in mind as we follow the conversation design and fill it with specific examples and cases. Nevertheless, various practitioners (consultants, cyberneticians, designers, methodologists, pedagogues, praxiologists, systemists, and team leaders) may find the design of the conversation useful for their own particular purpose. The concepts "human activity system" in reference to the human collective [Checkland, 1981], "design" according to its methodological emphasis [Collen, 1995], and "conversation" as a systemic form of human discourse [Collen, 1997] are intended throughout this paper. Preference is given to information systems and their interface with human beings and communication technologies [Collen, 1996]. The term "information" is used in this paper to designation the subject content communicated among persons in the course of conversation.

2 Design of a conversation

The design of a conversation is applied to accomplish a particular end. It serves as an overarching framework. It describes the configuration of resources needed to conduct the conversation. It provides its designer a larger view as well as a horizon. Designing the conversation is the process of design, and the product of the process is the conversation design. The designing may be accomplished as a preliminary and preparatory phase to conducting the conversation for which the design is intended. Or the design may become an ongoing part of the conversation itself, that is, an emergent reality of the conversation that can be articulated (but is typically not). The conversation design can help its user(s) to guide the conversation in the classical meaning of the cybernetician at the helm. There is no cookbook of designs or set of conversation designs to steer the course of a conversation. Theoretically, there may be incomprehensible number of different designs possible. In this paper, the author, as designer in solo, provides the conversation design for its potential application. More systemic, however, is conversation whereby the participants themselves work up their own conversation design as a preliminary by setting parameters, ground rules, and direction. For example, Collen et al (1995)

provides the group report of their conversation about designing conversations.

3 A conversation design for ethical dilemmas, issues, and problems

The proposed design is outlined in Table 1. It consists of four stages. A group leader or facilitator is required who is familiar with the design as well as means of group facilitation. The design is intended for a workshop and small group setting with 6-12 participants. Although this design is configured for one session of an international conference, it need not be so limited; more likely several sessions may ensue. And the participants will probably represent various interests of their human organizations. In such instances, therefore, the design presented becomes a trigger or catalyst for the participants to redesign of their subsequent sessions of conversation tailored to meet their specific interests surfaced during their initial session.

- Participants: 6-12 persons, including a group facilitator.
- Time: one 1-2 hour session.
- Place: comfortable and quiet room, roundtable arrangement, and recording/display materials.
- Stages of the conversation:
 - I. SITUATE ethics in human activity
 - II. DESCRIBE & DISCUSS cases that exemplify ethics of information systems
 - III. DESCRIBE & DISCUSS cases that exemplify research ethics of information systems
 - IV. CONCLUDE

Table 1. A conversation design to examine ethical dilemmas and problems in human activity systems.

The four stages of the conversation design are outlined in more detail in the remaining sections of this paper.

4 Situating ethics in information systems

To move the conversation beyond an initial familiarity with other participants is to dig into the substance of the subject. Lay definitions of conversation tend to restrict its denotation to more superficial exchanges and socializing of everyday life. However, in a design oriented science, once the initial rapport is established to constitute the group, substantive learning can proceed by its members coming to terms with common meanings to be shared that shall contribute a vital body of knowledge to the development of the conversation. In this design, the key constructs that must be discussed are ethical dilemma, ethical issue, ethical problem, and ethical research issue. The questions and definitions shown in Table 2 are to catalyze conversation, not to provide the definitive answer to each question. The expectation is that the first stage of the conversation will consider these terms as the starting point for selecting, describing, and discussing the content of the subsequent stages. In Stage I, the group confirms or redefines these constructs, as deemed appropriate, then moves on to Stage II.

Question. What is an ethical problem situation?

Definition. An ethical problem situation is discordance of two or more human interests, regarding what is right and wrong human behavior, that is a genuine conflict or dispute with the potential for adverse human consequences and evidenced by contrasting actions from the differing parties.

Question. What is an ethical issue?

Definition. An ethical issue is the argumentation, reasoning, debate, and points of discourse that, as a body of information, defines and communicates the ethical problem situation.

Question. What is an ethical dilemma?

Definition. An ethical dilemma is a set of seemingly equal undesirable choices to act in response to an ethical problem situation; it is a set which favors no clear path for action at the personal level and oftentimes the collective level.

Question. In what ways can cybernetic and systemic perspectives inform us about ethical issues, dilemmas, problems?

Discussion. Examples and cases.

Question. In what ways can research ethics move us toward a course of action regarding ethical dilemmas and problems in human activity systems?

Discussion. Examples and cases.

Table 2. Defining an issue, dilemma, and problem of an ethical nature in human activity systems.

To expound upon the two questions for discussion, examples and cases are to be drawn from the experiences of conversation participants as well as such sources as Beauchamp et al. [1982], Broad and Wade [1982], and Penslar [1995].

Efficiency. The fact of being an operative agent or efficient cause; fitness or power to accomplish the purpose intended; adequate power; effectiveness; efficacy; the work done by a force in operating a machine or engine, the total energy expended, the ratio of useful work performed to the total energy expended or heat taken in.

Effectiveness. The quality of being in regard to concern for the production of some event or condition; the power of acting upon objects; that portion of an agency or force which is actually brought to bear on a particular object; the completion or result of an action.

Efficacy. Power or capacity to produce effects; power to effect the object intended.

Evaluability. The potential, capacity, or readiness to be appraised, estimated, or valued.

Ethicality. Qualities, behaviors, or principles concerned with the science of morals, rules of conduct recognized in certain associations or departments of human life, and science of law, whether civil, political or international.

Table 3. The Es of praxiology.

As a transition to Stage II, it is helpful to become familiar with the Es of praxiology (Table 3). These constructs are useful to facilitate selection and des-

cription of examples and cases, because typically a given party uses one or more of them to justify an adopted position and associated behaviors, in regard to an ethical issue, dilemma, and problem. These constructs are also up for discussion, debate, and redefinition, prior to commencing Stage II.

5 Case study exemplifying ethical aspects of information systems

To describe an example and a case of an ethical nature, it is most expedient to answer the most basic questions that one can ask about the case. Details thereby generated define the case for the discussion to follow. A set of such questions are shown in Table 4.

- Who was involved?
- When did it happen and what were the circumstances?
- Where did it happen and what was the situation?
- What happened exactly?
- Who were the conflicting parties and what interest did each party have in the matter?
- What made it an ethical issue, dilemma, and/or problem?

Table 4. A set of questions for generating essential description of an ethical case.

To discuss an example and a case of an ethical nature, there is a practical scheme which enables the group to apply the information previously presented. The scheme is shown in Figure 1.

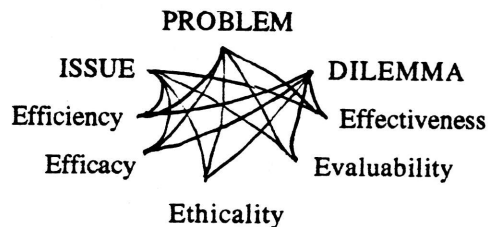


Figure 1. Schematic for discussing an example and case of ethics in human activity systems.

One recent case of an ethical nature involves long standing donations of major cigarette companies to fire safety organizations in the United States [Levin, 1998]. Rather than the former companies manufacturing a fire resistant cigarette, known to be possible and feasible for decades, the alleged alliance between the two business sectors has led the later companies to manufacture fire retarding synthetic products poisonous after combustion and inhalation. Smoking is the nation's leading preventable cause of death, and cigarettes are responsible for one quarter of all fire deaths. This case illustrates the kind of focus that may be useful with Stage II of this conversation design.

Once a case is defined, there may be several choices to steer the discussion toward the more collective level. Table 5 shows some exemplary foci for such discussion in terms of questions, the answers to which may be

shaped to an issue, dilemma and problem. Again, these questions are prompts, intended to encourage participants to lengthen the list, then select one holding a high level of interest in relation to the cases previously discussed. Such a tactic may be used by the facilitator to move the conversation from specific cases to more general discourse in order to transit the group toward Stage III.

- Can technology serve humans or do humans serve technology?
- Can one inform, not inform, misinform, and disinform?
- Can the management and control of information serve to manage and control people?
- Can a cybernetic and systems methodology be employed ethically to study the interface of information and human activity systems?

Table 5. Some exemplary questions for general discussion of the ethical aspects of information systems.

6 Case study exemplifying research ethics of information systems

The third stage is intended to direct the conversation to a more action orientation. This is done by surfacing aspects of research ethics [Beauchamp et al., 1982; Penslar, 1995], evidently connected to contemplated inquiry that could resolve a current case, or help prevent a known case to reoccur in the future. As in the previous stage of the conversation, the group is guided to describe and later discuss specific cases of an ethical nature, but involving the conduct of inquiry itself. In traversing Stage III, it is key that the facilitator help the group establish connections between the cases discussed in Stage II with those that are coming forth in Stage III.

Some examples of foci commonly found in the subject area of research ethics that can be related particularly to the management control of information systems are: jeopardizing human welfare, impeding human resources development, adverse ecological impact, biased advocacy, selection and tampering, and plagiarizing. Such rubrics may be extracted from the description and discussion of the specific research cases in organizational settings.

One recent case of an ethical nature involved a student suing her school and professor because he would not allow her to avoid the dissection of a pig in her biology laboratory class for religious reasons [Walton, 1997]. Although alternative options existed for laboratory instruction (e.g. computer simulation), the instructor took the position that the situation violated his academic freedom of instruction. Research in organizational settings commonly involves comparisons among different conditions (e.g. treatments, procedures, forms of instruction, programs, and interventions). Participants are selected and assigned to such conditions of the research design that permit data collection for later comparison. This case illustrates the kind of focus that may be used with Stage III of this conversation design.

7 Conclusion

The fourth and last stage of the conversation design is to conclude the conversation. The emphasis here is to develop closure of the process, but preferably as a means to carry the fruits of the conversation into a mode for participatory action research [Whyte, 1991]. In this sense, this conversation design is anticipatory and intended to contribute to the betterment of organizational ethics via human inquiry.

The discussion of ethical cases works to sensitize participants to ethical concerns. There is the secondary gain of raising the consciousness of participants concerning practices which may become ethical issues, dilemmas, and problems. Participants seek to take from such conversations choices for action in such cases. Thus, the focus for concluding the conversation is to address the kinds of questions stated in Table 6.

- What have we learned about organization and research ethics from these cases?
- What choices do we have should such cases arise in our context?
- Is there a right path of decision and action in these cases?
- Are there guidelines and best practices that can minimize the likelihood such cases would surface?

Table 6. Focal questions to conclude conversation.

This paper has presented a conversation design of four stages for examining organization and research ethics in human activity systems. Even though the examples and cases have centered on information systems, limited session of conversation, and a small group, the design can accommodate extensions, such that more general considerations of conversation design might be considered. Conversation design is a key element of all practical and group oriented systems methodologies in human organizations. Although the subject area of this paper has been delimited to ethics of information systems, any subject area of conversation might be tested by means of these formulations.

8 References

- [Beauchamp *et al.*, 1982] Tom L. Beauchamp, Ruth R. Faden, R. Jay Wallace, Jr. and Leroy Walters. *Ethical Issues in Social Science Research*. The John Hopkins University Press, Baltimore, Maryland, 1982.
- [Broad and Wade, 1982] William Broad and Nicholas Wade. *Betrayers of the Truth: Fraud and Deceit in the Halls of Science*. Simon & Schuster, New York, 1982.
- [Checkland, 1981] Peter Checkland. *Systems Thinking, Systems Practice*. John Wiley, New York, 1981.
- [Collen, 1995] Arne Collen. *Human Science Research Methods, Theory, and Thinking. Seminar Supplement*. HSR Seminars, Walnut Creek, California, 1995.
- [Collen, 1996] Arne Collen. Needed: a methodology for studying the interface and integration of communication processing systems? *Systems*, 1(1):12-15, 1996.
- [Collen, 1997] Arne Collen. Conversation in research methodology for human activity systems. In Yong Pil Rhee, editor, *Proc. of the 41st International Meeting of the International Society for the Systems Sciences (ISSS'97)*, pages 415-423, Seoul, July 1997.
- [Collen *et al.*, 1995] Arne Collen, Gordon Dyer, Tad Goguen Frantz, Andreas Gotwald, Yoshihide Horiuchi, Gordon Rowland, and Uli Schwammle. Design of a conversation. *Review of Administration and Informatics*, 7(1):43-52, 1995.
- [Levin, 1998] Myron Levin. Tobacco firms spend big on fire safety groups. *Contra Costa Times*. Leshar Industries, Walnut Creek, California, page A1, January 2, 1998.
- [Penslar, 1995] Robin Penslar, editor. *Research Ethics: Cases & Materials*. Indiana University Press, Bloomington, 1995.
- [Walton, 1997] Marcus Walton. Student sues Foothill College over pig dissection. *Contra Costa Times*. Leshar Industries, Walnut Creek, California, page A33, December 28, 1997.
- [Whyte, 1991] William Whyte, editor. *Participatory Action Research*. Sage Publications, Newbury Park, California, 1991.

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