HU425-01: Risk Communication

Room: 125 Fisher
Time: 12:05-12:55 MWF
Term: Winter Quarter, 1999-2000

Instructor: Associate Professor Craig Waddell
Office: Room 342 Walker
Office Hours: 1-2 p.m. MWF; other times by appointment
Phone: 487-3261 (office); 482-1636 (home)
E-mail: cwaddell@mtu.edu

Required Texts


General Course Description

Historian James Souther claims that since World War II, the need to communicate technical information to the public has been dramatically increased by (1) environmental legislation, (2) the consumer movement, and (3) the advent of the personal computer. In all three of these contexts—but especially in the first two—risk communication plays a key role. In fact, communicating information about the risks associated with (among other things) natural hazards, environmental issues, health, safety, occupational hazards, consumer products, and financial investments is an increasingly important part of the work of both technical experts and professional communicators. This course examines various models of risk communication, the diverse roles assumed by the public under each of these models, and means of ensuring that risks are communicated both effectively and ethically.

As a profession and a subject of scholarly discussion, risk communication is a fairly new field. Nevertheless, the practice of risk communication is ancient, diverse, and ubiquitous, including everything from fairy tales to road signs. You have all been subjected to risk communication from birth (e.g., "Don't touch that stove!"); hence, you are each already risk communication experts of a sort. What we will try to do this quarter is to (1) pool your expertise (through shared discourse); (2) conceptualize your expertise (that is, abstract from your experience principles of effective and ethical risk communication); (3) inform your expertise (through our readings); and (4) practice your expertise (through your projects).
A Few Key Definitions

The National Research Council defines hazard and risk as follows:

**Hazard:** An act or phenomenon posing potential harm to some person(s) or thing(s); the magnitude of the hazard is the amount of harm that might result, including the seriousness and the number of people exposed.

**Risk:** Adds to the hazard and its magnitude the probability that the potential harm or undesirable consequence will occur.

National Research Council. *Improving Risk Communication.* (Washington: National Academy Press, 1989.) p. 321. We'll discuss implications of and variations on these definitions over the course of the term.

Public Participation

A central concern in discussions about risk communication has been the role of the public in shaping policies designed to respond to various risks (environmental risks, health risks, etc.). James Petersen contends that "citizen participation [in policy formation] is nearly synonymous with democracy." To work effectively with the public, risk communicators must understand the various ways in which public participation in risk disputes influences risk policy. Although numerous models of public participation are possible, four are especially pertinent to risk communication:

1. **The Technocratic Model:** Under this model, technical decisions are left to "experts" in science, engineering, industry, and government, and no appropriate role is defined for public participation or oversight.

2. **The One-Way Jeffersonian Model:** In 1820, Thomas Jefferson wrote "I know of no safe depository of the ultimate powers of the society but the people themselves; and if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them, but to inform their discretion by education." One implication of this Jeffersonian vision of democracy for risk communication is that the public has a right to participate in decisions that affect its wellbeing and/or that of the larger ecosystem, but that it should be empowered to do so, simply and unproblematically, through a one-way transfer of expert knowledge.

3. **The Interactive Jeffersonian Model:** In *Improving Risk Communication* (1989), the National Research Council rejects the One-Way Jeffersonian Model in favor of a two-way, interactive model of risk communication, a model which might be considered a more charitable interpretation of the Jeffersonian vision of democracy. Under this model, technical experts communicate their expertise to the public, and the public communicates its values, beliefs, and emotions to technical experts. Thus, while the public adjusts to expert knowledge, experts adjust to public sentiments.

4. **The Social Constructionist Model:** This model expands upon the Interactive Jeffersonian Model by acknowledging that the values, beliefs, and emotions of experts in science, engineering, industry, and government also play a significant part in risk communication and policy formation. Furthermore, technical information also flows in both directions; thus, the distinction between "expert" and "public" begins to blur.
Communication Ethics

In the West, theories of public communication can be traced back at least to the conceptualization (that is, the development of teachable principles) of the art of rhetoric in fifth century B.C. Greece. We'll draw upon this ancient body of rhetorical theory as we study risk communication this term. Aristotle (384-322 B.C.) defined rhetoric as "the faculty of observing in any given case the available means of persuasion." A key concern in philosophical discussions of rhetoric has been the extent to which an emphasis on persuasion licenses deceit and manipulation. Plato (427-347 B.C.) and (through him) Socrates (469-399 B.C.) criticized rhetoric for "making the worse appear the better case." Many rhetoricians, however, have been deeply concerned with the ethics of rhetoric. For example, in his Institutio Oratoria, Quintilian (A.D. 35-99) wrote:

Too much insistence cannot be laid upon the point that no one can be said to speak appropriately who has not considered not merely what it is expedient, but also what it is becoming to say. . . . these two considerations generally go hand in hand. . . . Sometimes, however, the two are at variance. Now, whenever this occurs, expedience must yield to the demands of what is becoming. . . . the end which the orator must keep in view is not persuasion, but speaking well, since there are occasions when to persuade would be a blot upon his honour. (XI.I.8-11)

Good risk communication addresses both what is expedient (persuasive/ effective) and what is becoming (ethical).

Reading and Class Discussion

"We don't understand anything until we've discussed it."

Russian Proverb

This course is based on common readings, on class discussion of those readings, and on the research projects described below. Hence, you should keep up with the reading and participate in class discussion on a regular basis; such discussion provides practice in public deliberation that is fundamental to the goals of this course.

We'll begin with John Ross's The Polar Bear Strategy, a professional risk-taker's compelling discussion and analysis of the risks we face in everyday life. We'll then move on to Lundgren and McMakin's Risk Communication, a handbook composed by and for professional risk communicators. We'll conclude our reading with Kamrin, Katz, and Walter's Reporting on Risk, which provides a mass-media perspective on risk communication. Viewing risk from these diverse perspectives should help to provide a more comprehensive understanding of risk communication.

As outlined in the below schedule of assignments and class activities, we'll also view and discuss a number of videos and case studies. For example, we'll view a video based on Peter Sandman's Responding to Community Outrage: Strategies for Effective Risk Communication. Sandman provides a perspective on risk communication reflective of industrial priorities. He claims that there are two different genres of risk communication: (1) arousing people whom one believes to be inadequately concerned about risks; and (2) calming down people whom one believes to be overly concerned about risks. He says that his book is relevant only to the second genre of risk communication; we'll examine and challenge that claim.
Research Projects

In addition to our common readings, you'll work on an individual or a collaborative research project on risk communication in which you either (1) communicate risks to an audience with the goal of reducing those risks (perhaps by finding a client who needs such work done) and provide a brief analysis of your work (see below); or (2) analyze existing risk communication with the goal of improving that communication, submitting--where possible--a copy of what you've analyzed.

In the past, class participants have completed projects on such diverse topics as pedestrian safety, environmental hazards, financial risks, occupational safety, chemical spills, natural disasters, sexually transmitted diseases, substance abuse, other health risks, domestic violence, and child safety. You might want to examine a case that is of regional interest; or you might examine a case-current or historical—that has gained the attention of the national media.

Given that 400-level courses can be taken by both graduate and undergraduate students, I've tried to keep diverse audiences in mind when selecting texts and designing the project assignment. If you're a graduate student, you might want to consider selecting option 2 (above) and using this project as a draft of a master's project, a pilot study for or draft chapter of your dissertation, or a draft conference or journal paper.

The ability to work collaboratively is becoming increasingly important in academic, industrial, political, and other contexts. People in all of these contexts need to pool both their time and their diverse skills in order to solve complex problems and to complete complex tasks effectively. Hence, I encourage you to use this opportunity to work in a collaborative group (consisting of 2-4 people), and I strongly encourage you to form interdisciplinary groups in order to take maximum advantage of one another's strengths. If you do join a collaborative group, remember that the others in your group will be depending on you, and your grade (as well as theirs) will in part be determined by your ability to work effectively with them.

As outlined in the schedule of assignments below, you'll work on this project in stages, including a proposal, a progress report, and a final product.

**Proposal:** Your proposal should be approximately 750-1000 words (three to four double-spaced pages) and should identify the members of your group (if you're working collaboratively), what each of you will contribute to your study, the issue or case you plan to study (topic), how you plan to study it (methods), why you've chosen this particular issue or case, what you hope to learn from this study, what problems you anticipate, and how you plan to resolve those problems.

**Progress Report:** Your progress report should be approximately 750 words (three double-spaced pages) and should describe progress to date, work left to be done, problems encountered, how you've resolved or attempted to resolve those problems, and (ideally) draft sections of your final project.

**Final Analysis:** In either providing a brief analysis of your own work or producing a scholarly analysis of someone else's work, you might consider, among other things, (1) the intended audience(s) of the communication; (2) the purpose(s) of the communication; (3) the effectiveness of the communication; (4) the ethics of the communication; and (5) how what you've produced or analyzed fits into—or might fit into—a larger, more comprehensive program of risk communication on this issue. In producing a scholarly analysis, be sure to support your claims with evidence.

If you've chosen the scholarly analysis option, your final project should be approximately 2500-3000 words (10-12 double-spaced pages) and should describe what you studied and why (topic and purpose), how it relates to other reading you've done (literature review), how you studied it (methods), a description of the case (narrative), what you found (results/thesis and evidence to support your thesis), and what insights you draw from your results (conclusions); for example,
what is the cause of what you’ve found? what is its significance? what should we do about it? what further studies might be warranted? You should also include a list of works cited and, if appropriate, appendices.

**Internet Resources**

As with most other topics these days, there is a vast amount of information about risk and risk communication available on the Internet. For example, Professor Mark Miller’s (University of Tennessee at Knoxville) Risk Communication Web page

http://excellent.com.utk.edu/~mmiller/riskcom.html

includes a number of useful links; and the Center for Environmental Communication Studies (University of Cincinnati)

www.uc.edu/cecs/

maintains a good bibliography on risk communication.

**Evaluation**

Your final grade will be determined *approximately* as follows:

10% Research proposal
15% Progress report
15% Reading and discussion quiz
25% Class participation
35% Final research paper

**The Americans with Disabilities Act**

MTU complies with all federal and state laws and regulations regarding discrimination, including the Americans with Disabilities Act of 1990 (ADA). If you have a disability and need a reasonable accommodation for equal access to education or services at MTU, please call Dr. Gloria Melton, Associate Dean of Students (7-2212). For other concerns about discrimination, you may contact your advisor, your department head, or the Affirmative Action Office (7-3310).
Schedule of Assignments and Class Activities

Dates indicate when reading and writing assignments are due, not when they are given. I've used the following abbreviations for our texts: PB = The Polar Bear Strategy; RC = Risk Communication; RR = Reporting on Risk.

Nov. 29 Overview of course and syllabus; self-introductions and preliminary brainstorming for project options

Dec. 1 PB ch. 1-2

3 PB ch. 3-4; video: "Get Out Alive"

6 PB ch. 5; more project brainstorming

8 PB ch. 6; video: "Responding to Community Outrage" (Peter Sandman)

10 PB ch. 7; discussion of Sandman's model of risk communication

13 PB ch. 8; project proposals due

15 PB ch. 9; video: "The Silent Spring of Rachel Carson"

17 PB ch. 10; discussion of Silent Spring

20 RC ch. 1-2

22 RC ch. 3; video: "A Major Malfunction: The Space Shuttle Challenger"

Winter Recess

Jan. 7 RC ch. 4

10 RC ch. 5

12 RC ch. 6-7; case study: public opposition to recombinant DNA research

14 RC ch. 8-9

17 RC ch. 10-11; video: "Low-Level Radioactive Waste"

19 RC ch. 12

21 RC ch. 13; progress reports due; schedule conferences; review for quiz

24 RC ch. 14; Reading and discussion quiz

26 RC ch. 15; video: "Battle for the Great Lakes"

28 RC ch. 16; case study: International Joint Commission Hearings on Great Lakes Water Quality

31 RC ch. 17; video: "World Population"
Feb.  2  RC ch. 18; case study: Paul Ehrlich's appeals for population control
4  RR ch. 1-2; Winter Carnival Recess
7  RR ch. 3-4
9  RR ch. 5-6: case study: regional dialogues on sustainable development
11 Oral presentations on projects
14 Oral presentations on projects
16 Oral presentations on projects
18 Oral presentations on projects; course evaluations; projects due