

# RISK: Health, Safety & Environment (1990-2002)

---

Volume 5

Number 3 *Symposium on Technical Risk in the Mass  
Media*

Article 9

---

June 1994

## Mass Media As an Information Channel and Public Arena

Hans Peter Peters

Follow this and additional works at: <https://scholars.unh.edu/risk>

 Part of the [Cognition and Perception Commons](#), [Communication Commons](#), [Environmental Sciences Commons](#), and the [Science and Technology Studies Commons](#)

---

### Repository Citation

Hans Peter Peters, *Mass Media As an Information Channel and Public Arena*, 5 RISK 241 (1994).

This Article is brought to you for free and open access by the University of New Hampshire – School of Law at University of New Hampshire Scholars' Repository. It has been accepted for inclusion in RISK: Health, Safety & Environment (1990-2002) by an authorized editor of University of New Hampshire Scholars' Repository. For more information, please contact [ellen.phillips@law.unh.edu](mailto:ellen.phillips@law.unh.edu).

# Mass Media as an Information Channel and Public Arena

Hans Peter Peters\*

## Introduction

Mass media are often criticized for the way they present risks. They are accused of either not warning their readers or viewers enough, or of exaggerating and sensationalizing the risks, thus undermining public acceptance of technologies and encouraging sub-optimal individual and political decisions.<sup>1</sup> Such a line of media criticism is also to be found in the work of media researchers such as Stanley Rothman and S. Robert Lichter, Eleanor Singer and Phyllis Endreny, and Hans Mathias Kepplinger, who in one way or another compare media coverage of risks with scientific risk assessments. The arguments presented by these authors are at first glance convincing and support popular assessments of mass media. The empirical evidence on which they ground their arguments seems to be valid. Yet, their judgments are based on several value premises and normative expectations about the media that ignore important aspects of mass communication.

This widespread media criticism has challenged and stimulated my own work on mass media risk communication. Feeling that (even good) journalists would not act the way the critics expect, and that if they did their readers would not like such risk reporting, I tried to make explicit the reasons for the contradiction between apparently reasonable criticism and journalistic practices. This led me to a perspective on mass media risk communication that I will briefly explain here.

\* Dr. Peters is a social scientist at the Jülich Research Center and teaches risk communication and empirical communication research at the University of Münster. After two years as a journalist, he studied physics and social sciences at the Universities of Cologne and Bochum and received his Ph.D. from the Ruhr-Universität Bochum.

<sup>1</sup> Bernard Cohen, *Nuclear Journalism: Lies, Damned Lies, and News Reports*, 26 Policy Rev. 70 (1983)

Certainly there are good reasons to criticize the media. Drastically simplified, and without qualifications always made by those who criticize, risk coverage and journalistic treatment of risk issues are often superficial and faulty — and rely too much on standard news sources. Also, coverage may personalize responsibility for damages, rather than relate it to social and political decisions, i.e., the structure of the “risk society.” Nevertheless, in this essay I try to will show the difficulty of finding hard normative ground from which to assess mass media coverage of risk.

### Technocratic Media Criticism

The above-mentioned criticisms take as a starting point a position I call “technocratic” because it assumes that risks are known to technical experts and that risk reporting should popularize the experts’ knowledge. This is the view of the scientific and technological elite.

I do not deny the value and even necessity of expert knowledge for making good individual and political decisions. My main concern is how public communication affects the way individual and societal decision-makers use expert knowledge. I seriously doubt that organizing the public discourse along experts’ frames and priorities — as the technocratic model assumes — best solves this problem.

Technocratic media critics, and others, hold the normative expectation that it is the mass media’s first task to provide their audience with a “true” representation of risk reality. This often means not only that individual statements dealing with risks should be true, but also that the statistical distribution of media statements about risks should meet certain criteria: The relative quantity of coverage about different risks should correspond to the relative size of the risks,<sup>2</sup> the ratio of statements referring to risks and benefits should correspond to the respective risk-benefit-ratio,<sup>3</sup> the overtime trend of the quantity

<sup>2</sup> Barbara Combs & Paul Slovic, *Newspaper Coverage of Causes of Death*, 56 *Journalism Q.* 837-843, 849 (1979) and Eleanor Singer & Phyllis M. Endreny, *Reporting on Risk: How the Mass Media Portray Accidents, Diseases, Disasters, and Other Hazards* (1993).

<sup>3</sup> Hans Mathias Kepplinger, *Künstliche Horizonte: Folge, Darstellung und*

of coverage of particular hazards should reflect the time trend in the development of these hazards,<sup>4</sup> and the presentation of expert opinions should reflect the proportions of experts who hold these views so that a lone dissenter is not “balanced” against the nearly consensual view of other experts.<sup>5</sup> The main judgment standard is scientific “truth” against which coverage is compared in one way or another.

This technocratic approach, measuring media coverage against scientific “truth,” may be questioned in at least four ways:

(1) There is not always a scientific consensus in the assessment of a risk. The most interesting and controversial risk issues are those where experts disagree. Even when there is a widespread consensus among experts, this consensus often exists only within a scientific and technological community committed to the development of a technology and hence is neither unbiased nor perceived as unbiased.

(2) Laypersons’ risk construct and risk-benefit analysis, although different from those of experts, may nevertheless be perfectly “rational.” The critics forget that scientific concepts, measurements and indicators are merely constructs, focusing on some aspects of reality and ignoring others. If we look, e.g., at the experts’ risk construct in the field of nuclear safety, we find that only certain causes of damage and a limited spectrum of effects are considered, that only direct relationships between risk source and possible damage enter their model, that qualitative risk factors — related to a complex pattern of preferences of laypersons — are ignored, and that the probabilistic nature of accidents is the only source of uncertainty they treat.<sup>6</sup> The experts’ risk construct certainly includes several important aspects and hence contributes significantly to our understanding of the nature of

Akzeptanz von Technik in der Bundesrepublik (1989) and Singer & Endreny, *supra* note 2.

<sup>4</sup> Kepplinger, *supra* note 3.

<sup>5</sup> Stanley Rothman & S. Robert Lichter, *The Nuclear Energy Debate: Scientists, the Media and the Public*, Public Opinion, Aug.-Sept. 1982, at 47.

<sup>6</sup> Hans Peter Peters, *Durch Risikokommunikation zur Technikakzeptanz? Die Konstruktion von Risiko“wirklichkeiten” durch Experten, Gegenexperten und Öffentlichkeit*, in *Risikokommunikation. Technikakzeptanz, Medien und Kommunikationsrisiken* 11 (Jens Krüger & Stephan Russ-Mohl, eds. 1991).

nuclear risk, but compared to the spectrum of reasonable objections against nuclear power, it is a narrow approach.

(3) Even when there is a broad consensus on the risk constructs of experts and laypersons, it seems doubtful that the main task of mass media is to mirror the reality of physical risk. Analyses by Allan Mazur suggest that mass media coverage is a good indicator for the activities of social actors (in his case the antinuclear movement) and probably an even better one if coverage would be compared to the activities of all social actors involved in the political process.<sup>7</sup> Hence, media recipients may find information from and about political actors and processes rather than information about the physical environment. If media coverage were primarily linked to expert judgments that would imply a predominance of experts in the public political process.

(4) Recipients of mass media have certain information demands which are not related to "problem size" as defined by experts. Even rational people may not wish to hear or read about risks in the mass media if they have already made a decision or feel they have no choice, if they have access to more specific and credible information channels (e.g. physicians, personal experience), or if they think that risk management is in competent hands. Regardless of the experts' risk estimates, people want to read about risks in mass media primarily if they might be affected by decisions of others and if there are indicators (conflict, involved interests) that institutionalized risk management might fail. To understand risk coverage one has to look for social and political factors accompanying the risk problem rather than for technical aspects of the risk. Coverage according to the technocratic point of view would certainly disappoint reasonable and legitimate expectations of the audience.

### Functions and Modes of Mass Media Risk Communication

Media reporting according to the technocratic model would have severe deficits from the point of view of public decision-making as well as from the point of view of recipients' information demands. To assess

<sup>7</sup> Allan Mazur, *The Dynamics of Technical Controversy* (1981).

the performance of risk coverage, it seems useful to distinguish two complementary perspectives on mass communication.

First, mass media are information channels distributing information from social actors (e.g., government, agencies, stakeholders) to the public. Journalists may select, edit and comment on this information; but most information published in the media comes from powerful social actors. Mass media are therefore a means for political, economic, cultural and other elites to inform, educate and influence the public. The information flow is more or less in one direction: from the elites to the mass audience. Secondly, mass media are also a channel of indirect and public communication among social actors. A statement by a stakeholder published in the media will likely stimulate a response by another stakeholder. Very often political controversies are accompanied by a public exchange of statements from the involved parties.

This arena function of mass media is crucial for democratic mass society. Compared to other (parliamentary, bureaucratic or legal) arenas, the media arena has unique features such as its unlimited topical scope, publicity, openness to new "players," and public interest as a norm of reference.<sup>8</sup> These features make the mass media a flexible arena; it can deal with topics and issues that are ignored by other arenas, and it thereby serves as a kind of supervising and integrating institution. Whenever something goes wrong in another arena (according to at least one social actor with access to journalists), the mass media arena may be called in to deal with the subject.

Any evaluation of mass media performance must recognize both media functions. The technocratic media criticism, however, contemplates only its information distribution function and assesses this function solely from the viewpoint of the scientific and technological elite. Mass media deal with scientific and technical issues (and risk issues certainly have such aspects) in different ways. At least one can

<sup>8</sup> Hans Peter Peters, *Wissenschaftliche Experten in der öffentlichen Kommunikation über Technik, Umwelt und Risiken*, Kölner Zeitschrift für Soziologie und Sozialpsychologie. Special Issue, Öffentlichkeit und Soziale Bewegungen (1994, in press).

distinguish three ideal types of mass media risk communication which I label popularization, public education and technological controversies.

Popularization, as the classical journalistic approach dealing with science and technology, tries to explain scientific questions, methods and results to nonscientists to let them share knowledge developed by scientists. This kind of communication leaves it to recipients to use such information, if indeed it has practical relevance, and to draw conclusions from it as best they can. Popularization is largely done by specialized journalists (science writers) and effectively reaches only a particular (scientific literate) public.

Public education means to provide members of the general public with information useful for acting reasonably as an individual in everyday life or as a citizen in the political process. Often public education tries to convince the public to do or to avoid certain things such as, for example, smoking, drunk driving, seat belt use, condom use, crime prevention or opposing a technology. Public education differs from popularization by the persuasive intent to change attitudes or behaviors. Hence, communication as public education implies that the communicator not only knows what is true, but also what is right and good.

Communication about risks as public technological controversy evolves if there are competing claims of factual truth which are based on (not necessarily the same) scientific evidence promoted by different political and scientific actors. Publicly fought technological controversies immediately question the validity of the scientific knowledge and the credibility of the experts representing the competing scientific points of view. The "translation" and practical application of scientific knowledge is not the main concern of journalists but rather the social conflict associated with different practical conclusions drawn from and/or legitimated by scientific knowledge.

Journalistic practices in dealing with risk issues vary significantly with the communication mode. While questions of audience relevance, comprehensibility or even compliance govern risk reporting as popularization or public information, the valid assessment of the

competing conclusions becomes the most important reference point for media reporting in technological controversies. However, since in most cases neither journalists nor their audience possess scientific and technical competence, the criteria used to evaluate the validity of competing claims are mostly nontechnical. Laypersons, for example, use their social competence to build expectations on likely biases of the involved social actors and their factual claims. This implies an information demand very different from that of an expert. While an expert would probably ask about the number of animals involved in an animal experiment regarding the toxic effects of a chemical, the statistical significance of the results and — probably — the scientific reputation of the experimenter, laypersons may be most interested in who paid for the study and who profits from the results. It is the question of credibility which comes into play here and where there is evidence of elaborated mental models laypersons use to process social and political information rather than technical information<sup>9</sup>.

It is also in this third communication mode of technological controversies that the arena function of mass media becomes important. If there is no consensus among the relevant social actors, arenas are required to unfold the conflict and to resolve it by means of consensus, compromise or legitimate political or legal decision. The mass media arena is particularly important in the first stage, when the controversy is unfolded. It prevents the exclusion of relevant interests or social actors from the decision-making process in the more closed bureaucratic, scientific, legal or parliamentary arenas. However, the mass media arena is quite problematic in the phase of the resolution of controversies, because it suppresses ambiguous and compromising opinions, thus polarizing the debate, and it seduces the social actors to communicate strategically, making it difficult to find a consensus or compromise. Rather than to reach conclusions or to make decisions itself, the mass media arena influences the problem-solving and decision-making processes in the other arenas, thereby correcting biases of these arenas.

<sup>9</sup> Hans Peter Peters, *The Credibility of Information Sources in West Germany after the Chernobyl Disaster*, 1 *Public Understanding of Science* 325 (1992).

### Journalistic Goal Conflicts and Mass Media Coverage as Compromise

In the previous section I have argued that mass media risk coverage is composed of journalistic products prepared within different communication contexts and that it makes sense to assume at least two broadly defined functions of mass media, namely informing the audience and establishing an arena for a public discourse. I conclude that, dependent on problem type and social context (consensus or conflict), the relative importance of the two functions and the actual information demand for the information distribution function vary: While in the popularization and public information mode the information distribution function dominates, the arena function becomes equally important in the case of technological controversies. And while there may be a consensus between experts and laypersons on what the relevant information is in the case of popularization, there is partial dissent on the most useful information in the case of public education and controversies. During communication as public education experts and laypersons may, for example, disagree on the perspective used to describe risks. Experts in most cases apply a macro-perspective, assessing risks and deriving recommendations on a statistical basis, whereas those affected by the risks are mostly interested in a micro-perspective, namely the meaning of a risk for them.<sup>10</sup> In controversies, experts mostly advocate a scientific-technical evaluation of competing factual claims, while laypersons (and journalists are laypersons and refer to them as audience) are more competent to assess the different opinions and their respective proponents according to social criteria and, perhaps, everyday plausibility.

If one accepts the (normative) premise that mass media in different contexts have to serve different functions and multiple functions at the same time, some implications follow: (1) In media analyses of risk coverage which are designed not only to describe but also to evaluate risk reporting (and most analyses explicitly or implicitly have that objective) a differentiation of media outlets according to social criteria

<sup>10</sup> Harold I. Sharlin, *Macro-risks, Micro-risks, and the Media: The EDB Case*, in *The Social and Cultural Construction of Risk. Essays on Risk Selection and Perception* (Branden B. Johnson & Vincent T. Covello, eds. 1987).

(e.g. problem-type, degree of social conflict) is more adequate than a scientific-technical categorization of risk sources covered; (2) normative standards used to assess media coverage have to be sensitive to the different risk contexts, communication modes and mass media functions; and (3) instead of focusing on one evaluation criterion at a time, different criteria have to be considered simultaneously with particular attention to ubiquitous goal conflicts between them.

Journalists are confronted with a number of very different expectations which are altogether legitimate from one point of view or another. The audience, for example, expects comprehensible and credible assessments of a risk source or recommendations for adequate behavior in a dangerous situation (e.g. after an accident in a chemical plant). Social actors use mass media as means to influence the members of the public as well as public opinion and thereby political decisions. They expect mass media to convey their definition of the situation, their recommendations and demands to the public with as little journalistic interference as possible (except, of course, a positive evaluation). Journalists themselves — and with them a number of political scientists and also parts of their audience — agree on a critical function of mass media, challenging and supervising the societal elites and defending the individual against the technical, economical or political “rationality.” Communication researchers like me expect mass media to form an arena for public discourse open for innovation and fulfilling certain functions in the adaptation of societies to new challenges. And, finally, the economic interests of media organizations require journalists to create an audience willing to pay for information and/or as a good that can be rented out to advertisers. Many of these expectations are not just passively held by their respective agents but actively claimed by means of economic and legal power, manipulative source strategies and the professional socialization of journalists.

Journalists face a number of goal conflicts in trying to meet all the expectations addressed to them. For example, there is a conflict between the aim to provide credible reassuring information after an

accident and the goal of criticizing and challenging the people and institutions responsible for risk assessment and risk management: A coverage trying to convey credibly a reassuring message cannot at the same time criticize the source of this information.

Mass media coverage, thus, may be best understood as compromise between several competing expectations and influences. This is certainly true as an empirical fact, but — as I have tried to argue — this is also inevitable as a response to contradictory normative claims. The media system handles this problem in certain ways. There is, for example, some kind of division of labor between different types of media and media sections and different functions may dominate at different times. But though, even an individual article or broadcast often enough represents a compromise completely satisfying neither recipients nor sources, “objects” of reporting and communication scientists.

The consequences of my main point that several normative reasonable functions of mass media compete, dependent on problem type and social context, are twofold: First, a fair assessment of journalism in the field of risk reporting has to take into account the particular communication objectives and goal conflicts journalists face when covering risk topics. And, second, attempts to improve risk coverage — certainly an important goal — must carefully avoid optimizing one media function at the expense of another.

