Journalistic practice in risk and crisis situations: significant examples from Spain

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Abstract

In a democratic society, the media are central to the communication of risks and uncertainties to the public. This article presents 10 proposals for improving media coverage in social risk situations. The article focuses on the production logic of the media and its consequences for society. The proposals and the conclusions of this research are supported by an analysis of three Spanish cases: the risk implied by the Tarragona chemical complex (one of the biggest in Europe); the terrorist attacks on 11 March 2004 in Madrid; and the Carmel tunnel disaster in Barcelona on January 2005. The authors are participating in a research project on public perception of risk funded by the Spanish Education Ministry on public perception of risk (2004–2007 and 2007–2010).

1. Introduction, aims and methodology

This article was inspired by a number of research projects undertaken by the authors, who, in recent years, have specialised in risk and crisis issues. Having analysed a number of cases, we reflect on several notions common to the different research projects. Our main aim was to draw some conclusions on the role played by the communications media in risk or crisis situations. More specifically, we have drawn up specific proposals aimed at improving professional journalistic practice in reporting on risk or emergency situations.¹

¹ This work forms part of a research project funded by the Ministry of Science and Innovation (SEJ 2007-63095/SOCI), entitled “The chemical risk perception at Tarragona and European Union: social effects of institutional communication and media of information.” The principal researcher is Jordi Farré (Rovira i Virgili University, Tarragona, Spain).

This article reports empirical data for the following case studies: (1) the risk associated with the petrochemical complex located in Tarragona; (2) the terrorist attacks on Madrid of 11 March 2004; and (3) the subsidence of a number of buildings in the Carmel area of Barcelona in January 2005.

1. The Camp de Tarragona petrochemical complex, which is the most important such complex in Spain and one of the most important of its kind in southern Europe, has very unique and specific characteristics that make it ideal for study.² Our research team studied several aspects of the risk implied by the activities implemented in this highly technical complex. In this particular article, we analyse journalistic coverage of activities in the complex and the media's role in communicating risk.

2. The terrorist attack of 11 March 2004 in Madrid, commonly referred to as 11-M in Spain, consisted of ten almost simultaneous explosions directed against four commuter trains during the early morning rush hour. It is the largest terrorist attack committed in Europe to date. A total of 191 people died and a further 1,700 were injured. A court sentence (by the Audiencia Nacional) has attributed authorship to members of Jihad terrorist cells or groups. The main features of a major crisis were evident on the day of the attack and in its aftermath, namely, shock, loss of control and uncertainty. This reaction was also evident among politicians and the media, leading to much closer contact between these groups than is normal. Our case study focuses on analysing how the communications media acted as this unprecedented crisis unfolded.

3. On 27 January 2005, in the Carmel neighbourhood of Barcelona, a tunnel used in works to extend Line 5 of the underground collapsed. A hole appeared measuring 18 metres across and 35 metres deep, into which a garage located at No. 12 Carrer Calafell collapsed. A number of other buildings had to be demolished subsequently. Although there were no victims, 1,057 people, 84 buildings (500 homes) and two schools were affected. The event led to a major social and political crisis.

Our research focuses on information production processes in the communications media and institutional communications management in times of crisis, studying, in particular,

² The results discussed here correspond to the research study referred to in footnote 1. Both authors of this article are participants in this research project.

the different actors involved, information sources and journalistic respect for professional codes of conduct. The methodology used for each of the case studies consisted of the following: (1) in-depth interviews with journalists working for local media in Tarragona³ and a closed-question survey administered to 30 journalists⁴; (2) analysis and study of journalistic routines referring to the content of three television channels (TVE, Antena 3 and Tele 5) for 11, 12 and 13 March 2004;⁵ and (3) analysis of content for four television channels (TVE, TV3, Antena 3 and Tele 5) and four newspapers (*La Vanguardia*, *El Periódico*, *El País* and *Avui*) in the aftermath of the Carmel tunnel collapse and in-depth interviews with the heads of communication in the main institutions responsible.⁶

2. Theoretical framework

Changes to modernity and its relationship with risk have led to the development of new paradigms, one of which is the risk society (Beck, 1986).⁷ This current of thought refers to the fact that important transformations are occurring in today's society, leading to new social relationships (in the form of innovative grassroots movements such as environmentalism, pacifism and feminism) that supplant the class society. In this context, Beck posits the risk-society paradigm as a state of modern society in which the production of political, ecological and individual risk escapes institutional control. The novelty of the concept of the risk society is that our decisions and civilisation imply

³ The interviews were conducted with journalists in the following media: Tarragona Ràdio, Catalunya Ràdio, Diari de Tarragona and Ràdio Nacional d'Espanya. Interviews were also conducted with representatives of the Directorate-General for Emergencies of the Generalitat (Autonomous Government) of Catalonia, heads of the Emergency Press and Communications Bureau of Catalonia and representatives of the Risk Observatory.

⁴ Following Wimmer & Dominick (2001, p.83), who refer to these as technical surveys or non-probabilistic samples (composed of voluntary or intentional subjects), a questionnaire was administered and responded to by 30 journalists active in a range of communications media: newspapers (*La Vanguardia*, *El Periódico de Catalunya*, *El País*, *Avui* and *Diari de Tarragona*); television stations (Televisió de Catalunya, both TV3 and Canal 3/24, Canal*/CNN+ and Barcelona Televisió); radio stations (Ràdio Nacional d'Espanya, Catalunya Ràdio and Ona Catalana); and finally, a press agency (Europa Press).

⁵ For further information, see Cortiñas & Pont (2006). Actores periodísticos y políticos en momentos de crisis: un estudio de caso *Comunicar*, Vol. 14, No. 27, pp. 129-135.

⁶ For further information, see Pont (2008). Protocols, actors i comunicació institucional en episodis d'emergència. Estudi de la gestió informativa de l'esfondrament d'un túnel del metro al Carmel de Barcelona. Doctoral thesis. Department of Communication. Pompeu Fabra University. Barcelona.

⁷ In 1986, the German sociologist Ulrich Beck published *Risikogesellschaft: auf dem weg in eine andere Moderne*, published subsequently in several languages, including English and Spanish. In the 1990s, this social theory entered into dialogue with the contributions of other authors such as Giddens, Lash, Habermas and Luhmann, etc.

global problems and dangers that radically contradict the institutional language of control and the promise of controlling catastrophes that are palpable in worldwide public opinion (Beck, 2003).

On the other hand, the concept of modernity according to Giddens (1993) is a stage that is based on separating time and space (and also on the need for regionalising social life), through a process for disconnecting social systems through symbolic signals (money, for example) and bearing in mind expert systems (structures of experiences that organise material and social areas, such as specialisms in electronics). Modernity has created a series of systems which function, in a coordinated way, with a set of safe actions that make life today possible (Giddens, 1993): for example, extracting money from an automatic machine, obtaining water from a tap, making a telephone call or turning on the light.

Risk and the media

As a complement to sociological theories in regard to risk we need to be aware of the very relevant role played by the communications media. The media make information public and so add to collective knowledge of danger, risk and visible insecurity. Alarmism is fostered by numerous broadcasts by the mass media, and news coverage of crises, terrorist attacks and catastrophes is immediately transmitted all over the world (Gil Calvo, 2004, p. 35).

The same author's hypothesis on the amplification of collective risk links in with what Beck has to say on globalisation: increased public knowledge of perceived risk coupled with scientific ignorance of the real risk means that the alarmism of the communications media is not invented but is in fact genuine. On the basis of a certain threshold of real risk, public opinion always tends to provoke and perceive greater collective alarmism, a fact reflected in the journalistic saying that "the only real news is bad news".

The communications media are capable of reconstructing facts and presenting them as an historic event on the basis of a representation of reality as a revelation (Gil Calvo, 2004, p. 151). The perception of risk has increased in recent decades, and this important change has clearly been produced by the fact that information is immediately available.

With the removal of communication frontiers, news arrives in a question of seconds to all corners of the world, and this leads to changes in the attitude of the receivers (Fog, 2002).

The social transformation experienced by developed societies has meant that new risks and dangers have arisen; furthermore, the perception of risk and danger has changed because of the influence of the media. Fog (2002) indicates that there are two main factors distinguishing risks today: risks unknown to affected persons, unknown to science, new and involuntary and that slowly unfold (cancer, AIDS), and risk implying fatal, horrific and catastrophic consequences for future generations (nuclear explosion, chemical accident). Society's fears and its demands for intervention and for risk reduction are more influenced by the second factor than by the first factor. Fog also points to the fact that public opinion takes into account information quantity when evaluating risk: "People tend to evaluate the probability associated with a risk on the basis of the amount of information they receive about the risk factor. The perception of a risk is thus shaped by the amount of media coverage and the vividness of this information." (Wahlberg & Sjöberg, cited in Fog, 2002).

Pidgeon (2003) posed five arguments underlining the fundamental role to be played by risk perception when incorporated in prevention policies: (a) people should be involved in decisions that affect them; (b) public perceptions reflect basic values; (c) perceptions have real consequences that are translated into direct costs, new risks for the public and the viability of institutions; (d) experts may also have their own prejudices; and (e) public perspectives on risk can enrich expert analyses. In other words, research into risk perception legitimises public concern as far as governments are concerned (Pidgeon, 2003).

Confronted with risks that are significant, the public desire for information needs to be addressed (Murdock et al, 2001); in other words, the public wants information that enables it to decide whether or not to purchase a certain kind of food or use a specific means of transport, etc. This process of rationalisation obliges the media to extract interpretations and to refer to multiple sources of information (Murdock et al, 2001, p. 91). Consequently, reciprocal communication between the actors that interact in the

context of risk management leads to more effective risk management (Bennet & Calman, 1999).

The communications media are a source of social amplification of the perception of risk because they focus on negativity and drama and tend to distort or exaggerate the issue. This fundamental equation is supported by the perception and social reception of risk and by the right of citizens not only to seek, receive and obtain information but also to participate in decision-making processes (Farré, 2005). This participation and interaction by citizens is referred to in new theoretical concepts such as the notion of communicating risk.

The notion of risk communication was defined and developed by the USA National Research Council in the 1980s in order to respond in a comprehensive way to the risk management process. There is a trend aimed at transmitting information to society, but there are also more general processes, such as the rules proposed by certain government, business and international bodies like the European Union, the Organisation for Economic Corporation and Development and the International Standardisation Organisation.

An international body that was a forerunner in developing a particularly useful risk communication concept was the National Research Council of the USA. Its report entitled *Improving Risk Communications* states as follows: “Risk communication is an interactive process of exchange of information and opinion among individuals, groups, and institutions. It involves multiple messages about the nature of risk or other messages, not strictly about risk, that express concerns, opinions, or reactions to risk messages or to legal and institutional arrangements for risk management.” (Committee on Risk Perception and Communication, National Research Council, 1989, p. 21).

Risk communication as a process takes account of four analyses: of effects, content, persuasion and actors. The actors include the affected community, public authorities, industry professionals, scientific and technical experts, civil associations and the communications media. This article will focus on the media.

A study by Murdock et al (2001)⁸ attributes this change in risk perception to three key factors: (a) the growing numbers of non-governmental organisations (NGOs) with their capacity for obtaining access to the public agendas of the media; (b) the remarkable growth in the public relations function in both governments and businesses; and (c) the growth of the Internet. These authors point to the fact that the media should be viewed as an opportunity rather than a problem because public opinion becomes public largely through television, radio and the press.

3. Results

Table 1 summarises the three case studies analysed, indicating the main sources used by journalists, the sources underused by journalists and the main defects that we detected in information provision during the days analysed.

Table 1. Summary data for the three case studies

	Tarragona Complex	11-M Terrorist Attack	Carmel Tunnel Collapse
Date	Latent risk	11 March 2004	27 January 2005
Sampling period	2005 and 2006	11, 12 and 13 March 2004	28 January to 10 February 2005
Main journalist sources	* Business	* Political	* Political * Victims
Underused journalist sources	* Citizens * Experts	* Experts	* Experts
Main defects detected in information provision	* Business sector persuasion of journalists * Lack of risk communication * Little voice given to citizens	* Undue importance attached to political actors * Political pressures on journalists * Lack of critical capacity among journalists	* Political pressures on journalists * Violations of codes of conduct (sensationalism, etc) * Little voice given to experts

Source: Authors

⁸ This report, which studied the role played by the media in amplifying risk in society, was drawn up in Great Britain in 1999 with the support of the Cabinet Office, the Civil Aviation Authority, the Economic and Social Research Council, the Environment Agency, the Food Standards Agency, the Department of Health, the Health and Safety Executive and the Health and Safety Executive for Northern Ireland.

3.1. In situations that imply great social commotion, such as emergencies, the communications media must respect professional ethics as established in different professional codes of conduct and recommendations by regulatory bodies. The media need to be particularly careful with sensationalism and dramatisation, the invasion of privacy, pain and suffering, the separation between information and opinion and the accuracy of their information.

In this regard we make a number of proposals for improving ethical news coverage of emergencies on the basis of conclusions drawn from the three case studies referred to above and proposals and recommendations made by the Conseil Supérieur de l'Audiovisuel (France), Michigan State University School of Journalism (USA),⁹ the Consell de l'Audiovisual de Catalunya (Spain) and the contributions of authors such as Alsius (1998, 1999), Aznar (2005), Camps (2001) and Ochberg (2002). This section focuses particularly on the two main actors in a crisis, namely, public bodies and media journalists. Four elements need to be taken into account in regard to these actors: 1) information requirements; 2) the use of images; 3) information on the victims; and 4) other issues.

In regard to information requirements, the authorities need to take on board the media by treating them as equals but also as professionals, since these are fundamental elements of the principle of freedom in regard to sources of information and conflicts of interest. Journalists need to adapt their demands for information on the basis that, when a disaster occurs, priority must be given to the people and care for the victims. This is the principle of responsibility, in other words, humanitarian aid is primordial.

Sensationalism and over-dramatisation of information should be avoided, most particularly in graphic images produced by photographers and camera operators. As one example, in the case of the Carmel tunnel, it was found that over-dramatisation and a lack of accurate information accounted for 48.8% of ethical transgressions in the information published in the 15 days covered by the study. Photographers and camera operators should be particularly careful in using the zoom function. They need to avoid making a spectacle of an event and taking close-up shots of injured or dying people. The graphic journalists is responsible for his or her own fieldwork, but editors in the

⁹ Michigan State University. School of Journalism. Victims and the Media Program. <http://www.victims.jrn.msu.edu/> [consulted 15 November 2006].

newsroom should not permit images to be used from the archives and should edit all images of people who facilitate information (for example, in homemade videos) with a view to avoiding possible ethical or professional transgressions.

Another important aspect of news coverage of catastrophes is a professional attitude in regard to information on the victims. In the case of the Carmel tunnel, one of the principles most infringed by television channels was in regard to professionalism and accuracy in transmitting information. The eight media analysed committed infringements in 23.2% of the studied cases.

Other relevant aspects include excluding minors when reporting emergency situations (the principle of responsibility in regard to the protection of minors) and respecting the people affected by a disaster irrespective of race, ethnic origins or nationality. Professional rules of conduct are increasingly being established for disasters affecting the citizens of a region or country, but are often overlooked when coverage refers to persons from other races or countries (the principle of justice in regard to the handling of information on disadvantaged groups).

3.2. Journalists in emergency situations need to give voice to experts and scientists and to avoid journalism based on statements by politicians. Journalists also need to exercise greater critical capacity in terms of choosing their sources.

In situations of crisis, journalists tend to overuse political sources of information at the expense of expert sources. In the different research projects referred to here, the information sources that were most cited by the communications media were political. Scientific and technical experts were only used minimally by the communications media at times of crisis. Journalists, in fact, called very little on experts. It has to be conceded, however, that in some cases experts might want to avoid giving their opinion.

For example, in the research performed in regard to the Carmel tunnel accident, of the eight communications media analysed, 77 technical sources were given out of a total of 1,285 sources (that is, 6% of the total). Of all the technical sources, the most cited were geologists (21 times) and engineers (eight times.) Of note is the fact that there was just one citation by an architect. All the other experts were persons in charge of managing the crisis, such as, for example, firefighters, police and health workers.

The communications media tended to provide technical information through politicians and without directly consulting experts. This oversight meant that many news items were not checked. This was not always the responsibility of the journalist but often occurred because no experts were available who would willingly explain accident causes and possible solutions.

As for research into 11-M, politician opinions also formed the backbone of information programmes, with television channels thus converting their non-stop information slots into a political stage (Casero, 2004). This approach led to an exaggeration of information of a political nature in the three days following the terrorist attack. The presence of other actors—such as experts in national and international terrorism, experts in catastrophes, experts in pain and in medicine, academics, political analysts, financial analysts, representatives of civil society and representatives of NGOs—was merely testimonial in the television channels.

This lack of initiative on the part of journalists translated into highly repetitive interventions by the authorities and politicians. Fuelling the non-stop information programmes were the declarations of politicians, with interventions that were frequently repeated or, if new, no different in essence from previous contributions.

Journalists in crisis situations, as was evident in our research on 11-M, were deficient in terms of exercising critical capacity. In general terms, journalists showed little skill in terms of choosing their sources or inquiring about underlying aspects of certain constructs or forms of thinking. The general picture was of a journalist submissive and deferential to the political class, short on reflexes and overwhelmed by the scale of events.

It should also be pointed out that the increase in the number of public relations departments in governments and businesses has led to their expropriation of the discourse of experts, with these departments often endeavouring to shape expert discourse so that it reflects their own interests or simply adopting the discourse as their own. In the case of 11-M, for example, the Spanish Minister for Home Affairs, Àngel Acebes, gave preference to police and intelligence services discourse that supported his

own theories on the authorship of the terrorist attack, which was that the Basque separatist group ETA was responsible for the attack and not Al-Qaeda.

3.3. The media need to establish protocols for emergency situations similar to those for police, firefighters and medical services.

We recommend developing professional protocols for journalists that would establish criteria for ethical conduct in emergency situations. Bearing in mind the conclusions drawn from the three case studies referred to in this article, it is clear that there is a lack of emergency situation protocols that would establish priorities, improve the quality of the information transmitted to the public and avoid conflicts of interest between different actors (for example, the media and institutional press offices) .

Our recommendations for improving information coverage of emergencies are complemented by suggestions in regard to organising, editing and communicating news. These considerations, referring to editorial responsibilities for elaborating and organising information, complement the model proposed by Hazlett (2001): 1) facilitate cooperation; 2) provide platforms for debate and opinion; 3) broadcast other news; and 4) place events in their historical context.

One of the most important issues in broadcasting information is to facilitate cooperation, which means helping the public by publishing telephone numbers and contact details for institutional information in regard to all kinds of assistance, including with basic provisions, psychological and financial aid, repairs to damaged infrastructures, etc. The communications media also need to ensure more opinions and debating in their coverage of catastrophes. People could be encouraged to participate by means of the publication or issue of letters, e-mails and text messages or through chats and/or telephone lines (Hazlett, 2001, p. 5).

Another important issue is not to overlook other news items during an emergency situation. An oversupply of news on an emergency, no matter how serious, saturates the public and leads to inaccurate knowledge of an event. It is also important to give due consideration to international news (Hazlett, 2001, p. 5), providing information on

events happening elsewhere and, above all, broadcasting news that connects other countries with the situation.

Finally, all the news on an emergency should be presented in context and compared with other similar situations. It is important to refer to historical situations that enable the crisis to be viewed in context and compared with other emergencies (Hazlett, 2001), as this enables the public to evaluate the event appropriately and to reduce the alarmism intrinsically implied by such situations. Broadcasting statistics that enable a situation to be compared with similar situations is a good resource for enabling people to evaluate the real scope of an event (Finkel, 2001, p. 16).

In order to provide information on emergency situations, Grin (2001) proposes first explaining in detail all the facts and then responding at least to the following questions: what happened and when and where did it happen? In addition, it is also important to identify who was possibly responsible for the situation and to provide a chronology of events to help the public process the information, understand the origins of the event and assess the current situation (Grin, 2000, p. 11). Grin also recommends what is referred to as a user's guide, containing information on the bodies in charge of managing an emergency (NGOs, the Red Cross, etc) and also the numbers of bank accounts opened for donations aimed at alleviating the consequences of the disaster (Grin, 2000, p. 11). It is also important to broadcast and publish information in regard to provisions (food, water, blankets, etc), accommodation, places of refuge and confinement, etc.

Information provided for an emergency situation should also include resources available online and reading matter (Coats, 2001, pp. 62-63) so that people in need of further information will be able to locate it and so better understand the event, its causes and its consequences. Graphic information should include good maps of the area of the catastrophe, which should reflect the territorial scope of the medium, as the quality of photographs and other images are also taken account of by the public (Watson et al, 2001, p. 50).

3.4. The communications media and other actors need to invest more resources in communicating risk. The media systematically and routinely overlook the task of making information on risk available to the public.

The traditional difficulties of science communicating with the public is enhanced, in our Tarragona case study, by the difficulty of transmitting the risk inherent to the industrial processes performed in this petrochemical complex. The empirical data obtained in our research point to two tendencies: the fact that the population perceives a risk, and the fact that the communications media are not accustomed to dealing with risk. Put another way, risk and its communication do not form part of the agenda of the communications media in the Tarragona area.

Communication needs will only be satisfied by organising and coordinating all relevant actors. This task will require the cooperation of all members of the business community, institutions and social and political bodies.

Risk, furthermore, is affected by issues that hinder the communication task. Institutional fragmentation and growing bureaucratisation are particularly evident in the institutional actors responsible for the management and communication of chemical risk in Tarragona. In fact, most of these actors recognise the fact that this fragmentation exists and have proposed the creation of an institute or research centre to develop a model for action that would be less fragmented (Farré, 2005).

The issue of communicating situations of risk associated with the Tarragona petrochemical complex—touching on aspects as sensitive for the citizen as their health and safety—enters into direct conflict with powerful economic and political interests. Fieldwork indicates that, in the local media, positive news on the petrochemical complex takes precedence over negative news. The agenda is more frequently set by companies and institutions (for example, promotional events) than by journalists wanting to inform people on processes and risks arising from the complex (Castelló, 2008).

In other instances, the communication of risk is a bone of contention between ecology/citizen associations and companies/public bodies, with published scientific

studies latched onto as arms in the conflict. In this kind of conflict, the main aim of a publication may be relegated to a secondary position. When specific studies are exchanged between groups as authoritative statements, the actors contribute to distorting the core purpose of a publication, and, more seriously, denigrate the credibility of science and the scientific method as society's most important treasures.

It is appropriate at this point to refer to a proposal, by the researcher Carlos Elías (2000), aimed at improving the information flow between scientists and journalists. Elías calls for a new professional to act as an intermediary between scientists and journalists: the science 'interpreter', defined as a professional who is capable of translating scientific discourse into the language of the people. In conducting an interview with a scientist, a journalist would be met by two people: the scientist and the science interpreter. Just like a language interpreter clarifies meaning between two languages, the science interpreter would clarify concepts being referred to by a researcher or scientist. The journalist would then continue with the process of adapting the message for the public. Elías refers to this science interpreter as a science consultant, typically a career scientist who has a special skill for explaining technical issues and who is sensitive to the needs of the communications media (Elías, 2000, pp. 328-329).

The media and the other actors need to be aware that only systematic and effective communication will enable citizens living in a highly technical industrial context to deal with their feelings of uncertainty. Citizens have the right to know what is going on in the petrochemical complex and the mission of journalists is to inform people in a transparent and ethical way.

4. Conclusion: ten recommendations for improving media coverage of risk and crises

Our research is summarised in ten recommendations aimed at improving news coverage of risk and crisis situations by the communications media, as follows:

1. The communications media need to develop guidance protocols for crisis situations, just as has been done for other professionals (medical services, police, firefighters, etc).

2. Journalists need to give a voice to experts and avoid disseminating knowledge through public authority spokespersons.
3. Information professionals need to ensure lexical precision and avoid overly dramatic language.
4. Television camera operators and photographers should avoid taking close-up shots of people who are dying, injured or otherwise in pain.
5. In choosing sources, journalists need to reduce the importance awarded to politicians.
6. The media should cooperate with the authorities, in particular in regard to broadcasting institutional information that would help deal with the emergency.
7. Journalists need to be more rigorous and should avoid sensationalism and overly dramatising information.
8. The media need to avoid coverage based on statements by institutional actors and persons directly affected by a crisis.
9. A good way to improve relations between journalists and scientists would be to use the services of a scientific interpreter, as a person trained in liaising between journalists and scientists.
10. Journalists need to include agenda-setting aspects related to communicating risk for areas where risk exists (industrial estates, nuclear stations, etc).

In Table 2, we contrast the ten recommendations listed above with the empirical data obtained for the three cases.

Table 2. Recommendations contrasted with real practices in three case studies

	Tarragona Complex	11-M Terrorist Attack	Carmel Tunnel Collapse
Date	Latent risk	11 March 2004	27 January 2005
Sampling period	2005 and 2006	11, 12 and 13 March 2004	28 January to 10 February 2005
Recommendation 1 The communications media need to develop guidance protocols for crisis situations, just as has been done for other professionals.	There are protocols but they are out-of-date	There are no protocols	There are no protocols
Recommendation 2 Journalists need to give a voice to experts and avoid disseminating knowledge through public authority spokespersons.	Lack of expert voices	No data	Lack of expert voices
Recommendation 3 Information professionals need to ensure lexical precision and avoid overly	More technical precision required,	There is significant dramatisation	There is significant dramatisation in

dramatic language.	especially in chemical lexis	in all media items	TV items
Recommendation 4 Television camera operators and photographers should avoid taking close-up shots of people who are dying, injured or otherwise in pain.	No data	Many examples	Many examples
Recommendation 5 In choosing sources, journalists need to reduce the importance awarded to politicians.	No data	Political voices have significant weight	Political voices have significant weight
Recommendation 6 The media should cooperate with the authorities, in particular in regard to broadcasting institutional information that would help deal with the emergency.	There are coordination protocols but they are out-of-date	There is a lack of coordination between political actors and journalists	There is a lack of coordination between political actors and journalists
Recommendation 7 Journalists need to be more rigorous and should avoid sensationalism and overly dramatising information.	No data	There are some instances of sensationalism	There are many instances of sensationalism
Recommendation 8 The media need to avoid coverage based on statements by institutional actors and persons directly affected by a crisis.	Chemical companies dominate the news agenda	Institutional actors dominate the news agenda	Persons directly affected by the crisis dominate the agenda
Recommendation 9 A good way to improve relations between journalists and scientists would be to use the services of a scientific interpreter, as a person trained in liaising between journalists and scientists.	A scientific interpreter is absolutely necessary	No data	A scientific interpreter could improve reporting on technical aspects
Recommendation 10 Journalists need to include agenda-setting aspects related to communicating risk for areas where risk exists.	Risk communication is out of the agenda-setting	No data	No data

Source: Authors

It is quite clear that applying these ten proposals is likely to be complicated and costly. In the current economic climate, some of the recommendations are not likely to be implemented. However, we are also of the opinion that quality should not be conditioned by downsizing and destaffing in the media, but by the capacity, training and organisation of journalists. This would mean that journalism companies that guaranteed quality and thoroughness would have enhanced credibility at times of crisis, irrespective of the complexity of the economic scenario.

In terms of defective journalistic practices, a key starting point would be to grant greater powers to media self-regulating (or regulatory) bodies. It should be noted, however, that some of the defective practices that we have pointed to arise not with journalists but

with politicians, experts and businesses; consequently, this complex initiative would require cooperation among all the actors involved in the communications process (governments, politicians, the private sector, citizens, journalists and experts). A society in which information provision is unflawed is also a more just and democratic society.

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