



**HAL**  
open science

## **Intégration de la réaction du public dans la réponse opérationnelle face aux situations de crise : Une piste pour améliorer la sécurisation des grands événements ?**

Paul Henri Richard, Guillaume Delatour, Patrick Laclemece

### **► To cite this version:**

Paul Henri Richard, Guillaume Delatour, Patrick Laclemece. Intégration de la réaction du public dans la réponse opérationnelle face aux situations de crise : Une piste pour améliorer la sécurisation des grands événements ?. International conference Olympic Game : State of the art, Jun 2018, Marne-la-Vallée, France. <hal-02953419>

**HAL Id: hal-02953419**

**<https://utt.hal.science/hal-02953419v1>**

Submitted on 20 Feb 2024

**HAL** is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L'archive ouverte pluridisciplinaire **HAL**, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d'enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.



Distributed under a Creative Commons CC BY-NC-SA 4.0 - Attribution - Non-commercial use - ShareAlike - International License

Project of book by Routledge Hosting the Olympic Games  
Uncertainty, debate, controversy  
Marie Delaplace, Pierre-Olaf Schut  
Publication deuxième semestre 2019

### **Chapter 3.1**

## **INTEGRATING PUBLIC BEHAVIOURS INTO OPERATIONAL RESPONSES TO CRISIS SITUATIONS: A TRAIL TO IMPROVE SECURITY OF MAJOR EVENTS?**

PAUL-HENRI RICHARD, 0000-0003-0121-6076  
PATRICK LACLÉMENCE  
AUDREY MOREL SENATORE  
GUILLAUME DELATOUR

### **Abstract**

The recent terrorist attacks, which affected France, shown the international sports and festive events have been established as symbolic targets by terrorists. Following these attacks, from the minute according to the disaster, populations, victims and witnesses, were also the first links of the chain of help and solidarities. These behaviors are not intuitive for the professional services, for whom the population would give invariably to the panic and to the indifference. Based on this postulate, the prevention plans do not count on the action of civilians and try to keep them distant. This paper will present the stakes of including population in the emergency management preparation and in the operational behaviors to respond to the crises, in particular within the framework of safety measures organized during big events. This paper proposes at first a state of the art of the behavioral trends of populations facing disasters. Then, a second part approaches the perspectives of research for the area and the evolutions anticipated by the French doctrine on the horizon of the 2024 Olympic Games

## Introduction

The modern Olympic Games, resurrected by Pierre de Coubertin and first staged in Athens in 1896 is, alongside the FIFA World Cup, one of the most widely followed sporting events on the planet. Billions of people tune in to watch the opening and closing ceremonies and competitions, and millions of spectators attend in person. Managing security at these events poses a major challenge for host societies, amid the growing threat of social uprisings and terrorist attacks. The bloody hostage-taking episode at the Munich Olympics is a resonant case in point. On 5 September 1972, a group of eight terrorists from the Black September faction of the Palestine Liberation Organisation entered the Olympic Village and took nine Israeli athletes hostage. The incident left 17 people dead, including 11 Israelis. The event received heavy media coverage and would go on to leave its mark on the history of the games. The resulting rethink of law enforcement responses to such incidents led to the creation of special police forces in the western world.<sup>1</sup> At the 1996 Olympic Games in Atlanta, a pipe bombing attack in the Olympic Park left 2 people dead and 110 injured. More recently, the Islamic State Group carried out terrorist attacks during the 2016 Olympic Games in Rio de Janeiro.

Major sporting events, at which vulnerable members of the public gather in great numbers, therefore pose significant risks and threats.<sup>2</sup> They require government and the organisers to plan a range of measures to maintain public order and security, especially when crisis situations arise.<sup>3</sup> Yet these measures are not always planned with due weight given to how members of the public actually react. The authorities assume that spectators will act in a way that supports their work (disciplined, rational, following instructions, etc.). Nevertheless, that is not how things proceed in reality (Oberije, 2007).

Yet in the immediate aftermath of a disaster it is members of the public, themselves victims, who spontaneously volunteer to help others and are the first people to deliver first aid (Waldman et al, 2017), (Lorenz, 2017). France's civil security modernisation act of 13 August 2004 made citizens a central feature of civil security. However, 14 years on, this principle is still difficult to apply in practice. Despite the emergence of various concepts such as population and community resilience (Wulff et al, 2015) and initiatives attempting to restore the public's role in crisis management<sup>4</sup>, it is an undeniable fact that identifying and understanding how members of the public typically act, and incorporating these behaviours into operational management, remain major crisis management challenges. These challenges are a common refrain among international bodies (FEMA, 2011), (UNDRR, 2015).

The authorities have yet to fully grasp these challenges because of resistance driven by a number of beliefs.

---

<sup>1</sup> Including GSG 9, the elite Police Tactical Unit of the German Federal Police, the EKO Cobra in Austria, and the GIGN in France.

<sup>2</sup> Examples in France include the attacks near the Stade de France in November 2015 and on Promenade des Anglais in Nice in June 2016.

<sup>3</sup> For the purpose of this paper, the terms "disaster" and "crisis" are used to designate a sudden, catastrophic event, irrespective of its origin (natural or man-made), that severely disrupts the normal functioning of a community or society and causes loss of human life or damage to infrastructure, the economy or the environment, and where the society or community in question lacks the capacity to cope on its own. Examples include the AZF factory explosion, the Fukushima nuclear accident, and Hurricane Irma.

<sup>4</sup> In particular via the international standard ISO 22319 :2017 Guidelines for planning the involvement of spontaneous volunteer

The first such belief, stemming from conventional and intuitive views supported by the work of Gustave Le Bon (1895), among others, is that people invariably give in to panic when a crisis situation occurs. While this view has been questioned in recent years (Dezecache, 2015) and in various latter-day works on disaster management (Quarantelli, 1989), (Tierney et al., 1995), the myth that members of the public resort to panic, looting and indifference when a disaster happens continues to dominate thinking among professional rescue workers and leaders (Barsky et al., 2006), (Helsloot et al., 2004).

The second belief is that, in the midst of a disaster, people react in volatile ways that go against the expectations of the emergency services (inhibition and collective panic, exodus, rumours, violence, etc.) and that these actions can have a destabilising and disruptive effect on the work of law enforcement and emergency services (issues around responsibility, control, coordination, effectiveness and legitimacy), (Provitolo, 2005), (Tucker et al., 2011), (Crocq, 2013), (Provitolo et al., 2015). This is compounded by the fact that many of the spontaneous actions of members of the public are unpredictable and largely incompatible with the rigidly organised, hierarchical command and control structures typical of civil security services (Helsloot et al., 2004, p104).

The third and final belief, which is more recent in nature and might go some way to explaining this reluctance, is that the risk of terrorism and secondary attacks means that every victim, witness and person involved is considered a potential threat. Consequently, disaster preparedness plans deliberately exclude civilians and seek to keep them at arm's length. Moreover, when a disaster happens, the security services see members of the public as potential victims and sources of vulnerability rather than as assets who can be mobilised in support of crisis management and resilience-building efforts.

In light of these observations, those responsible for handling safety and security at major sporting events must consider how the public will react for crisis preparedness planning and operational purposes. The first part of this paper will take stock of current thinking on public behaviour in disaster situations. The second part will outline further avenues of research in this field and likely changes in the French doctrine ahead of the 2024 Olympic Games.

## **1. How the public behaves when a disaster happens.**

A great many researchers have sought to identify and model how members of the public behave in crisis situations. Their research focuses on observing human reactions when specific events occur, or on analysing typical patterns of behaviour such as panic and looting. Both academics and professional rescue workers make a value judgement when qualifying the behaviours, they observe.

### **1.1 Destabilising, volatile, inappropriate, pathological and dangerous patterns of behaviour.**

So-called destabilising behaviours are those that hinder the work of the authorities or the organising body and go against their prescriptive instructions. Such patterns of behaviour cause the victim count to rise and lead to social disorder. Examples include failing to follow evacuation instructions, evacuating in a disorderly manner, spreading rumours, and inhibition and collective panic. Some of these behaviours are caused by excessive stress when an attack is especially intense, prolonged or recurring. People react in one of four ways: they become

frozen with inhibition, they become agitated and disorderly, they panic and flee in fright, or they behave like robots.

### *Collective panic*

The term panic can be traced back to antiquity. It comes from the Ancient Greek word “*panikos*”, meaning “relating to Pan”. Professor Louis Crocq (2013) defines panic as follows: “*Intense, collective fear felt simultaneously by all members of a population group, characterised by a descent into archaic, impulsive and herd-mentality behaviour, and causing primitive responses such as frantic flight, disorderly agitation, violence and collective suicide.*” These patterns of behaviour are extremely destabilising for the security forces because they cause people to act irrationally and adopt a mob mentality, thereby posing a risk of further victims. While panic and social chaos are often reported anecdotally, commentators are too quick to use these isolated incidents as evidence, without scientific proof, that this kind of behaviour is widespread (Dynes, 2008). Moreover, the term “panic” is often employed incorrectly to describe situations of fear, stress and disorderly conduct by the public, without the necessary methodological precautions being taken to rigorously assess the patterns of behaviour observed. It is important to note that, here, fear and stress are adaptive responses to disaster situations.

Nevertheless, panic – insofar as it refers to the idea of herd mentality – dominates thinking among decision-makers about how the public behaves. The Age of the Crowd (Moscovici, 2005) introduces the idea of mass fear, hardening the authorities’ attitudes towards the way the public responds during a crisis. The kinds of images and information<sup>5</sup> used in crisis management training programmes merely confirm decision-makers’ preconceptions, who believe that, 85% of the time, people’s behaviour in a disaster situation is ineffective. Consequently, the view is that members of the public should be treated as soft targets.<sup>6</sup>

Gustave Le Bon, the leading authority on the concept of panic, pointed to how, in the right circumstances, a group of individuals follows what he calls the “law of the mental unity of crowds”.

Other contemporaries of Le Bon were critical of his approach, stressing that it rides roughshod, at least in part, over both individuality and people’s potential to act in isolation.

Most people do not panic in an emergency. In a crowd, individuals generally display a remarkable capacity to organise and assist (Drury et al, 2009). In *L’entraide, l’autre loi de la jungle*, Servigne and Chapelle (2017, p.85) point to several scientific studies that invalidate the notion that most people panic or turn to violence when a crisis unfolds.<sup>7</sup> On the contrary, they argue that, in a disaster situation, most members of the public behave in an orderly manner. “*All the evidence points to the same conclusion: that, when disaster strikes, people keep their cool and cooperate spontaneously.*” Many authors, while falling short of questioning the existence and definition of this pattern of behaviour, have made the case that collective panic occurs only rarely in crisis situations, and only when a number of conditions are met

---

<sup>5</sup> Presented without citing scientific sources; the figures contained in various communications reveal the following statistics: When a disaster happens, 12-25% of victims and other people involved react correctly, 75% are terrified, inhibited or numb, and 10-15% behave abnormally.

<sup>6</sup> The term “soft target” is used in counter-terrorism discourse to refer to vulnerable people who are unable to defend themselves (as opposed to a “hard target”).

<sup>7</sup> These authors cite, for instance, Lecomte (2012, p.32): “panic is often invoked after the fact to explain deaths as people are crushed by the crowd. Yet, in many cases, scientific research has shown that this was not the real cause.” and Johnson (1987, pp.171-183): “When sudden disaster strikes, individuals – whether stressed or in a state of shock – first and foremost seek safety; they therefore have little inclination to turn violent.”

simultaneously: 1) the group's structure has disintegrated, 2) there is no clear leadership, and 3) people are no longer acting in a mutually supportive way.

### *Violence, looting, indiscipline*

In some quarters, there is a belief – rooted in the collective psyche and stoked by media sensationalism – that, when disaster strikes and people are “*left without state control, they return to their primitive, barbaric and murderous instincts, with no care for the suffering of others*” (Lecomte, 2012). This pessimistic viewpoint can prompt policy decisions that are detrimental to the people affected by such disasters. One example of this process in action is the rescue operations report, a piece of crisis communication that seeks to mitigate the impact of the event and limit what information is available. Moreover, according to sociologist Lee (2002): “*The general public acts responsibly and with civility before, during and after a disaster. Senior decision-makers often use panic as justification to prevent the public obtaining information or accessing certain places, on the pretext that people cannot handle bad news*”, even when the facts are something altogether different. In a disaster situation, 75% of affected people react immediately in the right manner, while 25% do not (Lee, 2002). As soon as people feel sufficiently safe, their instinct is to try to rescue the victims. Governments and the media must take account of this sense of solidarity – driven by feelings of empathy, selflessness and a shared identity in the face of adversity (Crocq, 2007 – and give citizens a stronger role in crisis and risk prevention policy. According to APPERE (2006), “*decision-makers should no longer view members of the public as an exogenous or secondary factor, but rather as standalone components of the system, whose reactions to risks and decisions – whether deemed rational or irrational – are vital to the success, or otherwise, of the chosen management strategy.*”

There is a widely held preconception, for instance, that people affected by a crisis are helpless and dependent on outside support. Yet this is simply not true. In fact, people often take the initiative and seek out members of their community, either in person or by making phone calls. These actions have two destabilising consequences: the roads become congested as people look for their loved ones, and telephone networks become saturated. The authorities therefore need to take steps to deal with these regularly observed patterns of behaviour.<sup>8</sup>

## **1.2 Patterns of behaviour that the emergency services consider orderly or appropriate.**

When members of the public behave in these ways, the authorities find it easier to carry out their work and restore social order. Examples including knowing and following instructions, and evacuating when ordered to do so.

When the situation is chaotic and organised emergency services are lacking, people tend to organise themselves (Solnit, 2009), (Drury et al, 2009), acting in ways designed to achieve an acceptable degree of safety according to how they perceive the situation.

---

<sup>8</sup> Toll-free number, partnerships with social media, family reception centre, etc.

Examples of these patterns of behaviour abound. In an event context, lessons learned from the Manchester Arena bombing show how the people of the city and witnesses on the scene immediately rushed to help in different ways.<sup>9</sup>

Moreover, people often take on new roles or enhanced responsibilities to deal with the aftermath of a disaster, set up new organisational structures, or even use existing technologies in new ways (Drabek et al., 2002).

In this distinction between “orderly” and “destabilising” patterns of behaviour, there are plenty of myths and preconceptions (Glass, 2001), (Auf der Heide, 2004) that can cause crisis management professionals to make erroneous judgement calls and interpret the way in which human beings behave in disaster situations in an overly pessimistic way. Despite numerous scientific studies and lessons learned from past incidents showing that people tend to pull together and help each other out when disaster strikes, affected members of the public are still largely omitted from operational proceedings. In addition, measures such as public warning systems often fail to take account of social and psychosocial factors. In 2018, imminent threat warnings were issued in various parts of France using the national warning signal (sirens) inherited from the Second World War. Yet in 1986, Drabek pointed out those non-specific warning systems such as sirens are known to be ineffective at helping the intended recipients take protective measures. The attack warning smartphone app, launched in 2015 as part of the national public warning and information system and subsequently abandoned in 2018, shows how there is often tension between political communication demands and operational reality.<sup>10</sup>

## **2. Further avenues of research in this field and likely changes in the French doctrine ahead of the 2024 Olympic Games.**

### **2.1 Past and current research**

A number of research projects have been launched, both in France and Europe-wide, looking at what role the public plays and how to strengthen that role. Examples include a number of European disaster risk reduction projects such as PrepAge, Aware & Resilient, and ReCheck, which focus respectively on disaster preparedness among the elderly, improving preparedness, and building disaster resilience with the support of local communities. Further examples include H2020 projects such as the *PeP* project (community resilience and public crisis communication) and the POP-ALERT public warning project. In France, the CSFRS SCOPANUM project looked at how to engage citizens in managing the aftermath of a nuclear accident via social media. The EURIDICE research consortium’s CARTO-MSGU sub-project focused on dynamic mapping based on citizen-reported information. More recent examples include the ANR MACIV project looking at how social media could be used to manage citizens and volunteers in crisis situations, and the ANR Com2SiCA project, which seeks to understand and simulate how people behave in disaster situations. In addition to the production of scientific and academic literature, civil society plays a particularly prominent role in furthering knowledge on civil security issues, particularly in France<sup>11</sup>. Civil society organisations produce

---

<sup>9</sup> Offering victims somewhere to stay, providing free taxi rides, delivering emergency care, etc.

<sup>10</sup> Senate Information Report no.595 presented by Senator Jean-Pierre Vogel. *Le système d’alerte et d’information des populations : un dispositif indispensable fragilisé par un manque d’ambition.*

<sup>11</sup> Risques infos Bulletin de liaison N°31-juin 2013 Risques majeurs : Quelles participations civiles et citoyennes ?

and publish awareness-raising materials explaining how citizens can take risk and crisis management back into their own hands<sup>12</sup>.

## 2.2 Changes in France's doctrine

### *Making citizens a central feature of operational response: an idea that still faces resistance*

In addition to reluctance among managers and decision-makers stemming from preconceptions about members of the public behaving “badly” in crisis situations, citizens have only a bit-part role to play in France's major risk management policy. Looking at both theory and practice, recent institutional reports and academic articles on France's major risk management policy highlight its many limitations<sup>13</sup>. They show that the policy fails to take account of a range of issues around vulnerabilities and major risk prevention (Padioleau, 2012). There is a clear desire to plan and build resilience with input from all stakeholders, but the same criticism comes up time and again (Gilbert, 2013), (Decroq, 2014): in practice, national policy provides little room for local policy-makers, elected officials and citizens to collaborate and act together. Central government and its devolved authorities see this policy as a sovereign matter for the welfare state, dispossessing local politicians and citizens of any power over such matters. Prevention, planning and response are viewed through a technocratic, centralist prism, and risk prevention and emergency response plans are guided by a one-size-fits-all approach. The “public”, meanwhile, is treated as the poor relation in public major risk management policy-making. In her thesis *Le riverain introuvable !*, Fournier (2010) shows how the public is sidelined in flood risk management policy. Yet three key lessons can be learned from the manner in which previous crises have been managed.<sup>14,15,16</sup>

First, because it takes time for organised emergency services to arrive on the scene, there is naturally a period of time when members of the public are left to fend for themselves.

Second, while inappropriate reactions do cause casualties, people tend to behave in an orderly manner and pull together to help other victims (Rodriguez et al., 2006).

And third, real-time digital channels are an effective way to get information to people and to mobilise the public when an event occurs (Sullivan et al., M. 2014).

French doctrine is therefore evolving in a way that gives the public greater capacity to cope with accidents and disasters, not least following the recent terrorist attacks.

### *Improving public training and information*

---

Face aux crises, courage, changeons ! Confiance et solidarité : les conditions de réussite en gestion de crise Fondation nationale Entreprise et Performance (FNEP) 162 pages, // Réf. 9782110094780 // septembre 2013.

Rapport du Commissariat Général au Développement Durable Analyse Intégrée de la Résilience Territoriale Groupe de réflexion « Le citoyen au cœur de la résilience » décembre 2013

<sup>12</sup> Plaquette « Je me protège en famille » - Le plan familial de mise en sûreté Ministère de l'intérieur et Institut des Risques Majeurs Novembre 2010 - I.S.B.N. 978-2-11-128165-3. Site internet FF72.org permettant aux collectivités de créer leur propre site de préparation des populations en cas d'événement exceptionnel. Projet porté par le HCFDC.

<sup>13</sup> Les territoires face aux catastrophes naturelles : Quels outils pour prévenir les risques ? Étude présentée par FERRETI A. (2015) au nom de la délégation à la prospective et à l'évaluation des politiques publiques. Conseil économique et sociale 133p. Audit du programme n°181 « Prévention des risques » conseil général de l'environnement et du développement durable. Rapport N°007240-01 mai 2012. 212p. Les risques majeurs et l'action publique rapport du conseil d'analyse économique La documentation Française Paris 2012, CHAUVEAU, E., & al. (2011). Xynthia : leçons d'une catastrophe. Cybergeo : European Journal of Geography Environnement, Nature, Pays.

<sup>14</sup> Calvet F., Manable C. (2015). *Xynthia, cinq ans après : pour une véritable culture du risque dans les territoires*. Senate Report 92p, *Les territoires face aux catastrophes naturelles : Quels outils pour prévenir les risques ?*

<sup>15</sup> National Assembly Report No.3922 (2016) submitted on behalf of the government counter-terrorism measures inquiry committee, set up on 7 January 2015.

<sup>16</sup> Huet, P., Martin, X., Prime, J.L., Foin, P., Laurain, C., Cannard, P., *Retour d'expérience des crues de septembre 2002 dans les départements du Gard, de l'Hérault, du Vaucluse, des Bouches du Rhône, de l'Ardèche et de la Drôme. Rapport consolidé après phase contradictoire*, 546 p, 2003

The emergency services are better able to do their job if the people on the scene of an accident or incident adopt the right behaviour<sup>17</sup>. At present, around 30% of French people have completed a first-aid awareness or training course. This statistic stands in stark contrast to figures in other European countries, where around 80% of citizens have completed such a course.

The 2017 Pelloux-Faure report<sup>18</sup> recommends a series of measures to help France catch up with its neighbours and ensure that more than 80% of its citizens have completed first-aid training:

- To propose short training courses of 2 hours for free, named “Introductory first-aid”.
- To develop tax-deductible courses
- To develop a law that will create the Lifeguard citizen statute in France

In 2019, many different decisions named above, have taken place reinforcing the resilience of French populations. Ongoing efforts to better train and inform the public on this issue, with input from all stakeholders, are helping to improve safety and security at major events.

In addition, new information and communication technologies are opening up new opportunities for crisis management (Adrot, 2010). For instance, the use of social media<sup>19</sup> and mobile apps<sup>20</sup> in emergencies is helping to spark and spread solidarity initiatives. Yet the sheer diversity of such technologies makes it difficult to summarise the many solidarity initiatives emerging on social media, and raises questions about how they fit into institutional systems (Douvinet et al. 2017). In late May 2018, there was a change of strategy in France’s national public warning and information system, with the government signing an agreement with companies like Facebook and Twitter to make more use of social media. Future developments will, in all likelihood, see greater use of mobile technology to better warn and inform members of the public in an affected area.

## Conclusion

The Olympic games are political events *per sé*, symbolic targets, the security of these events correspond to a primordial dimension of attribution conditions. The budget attributed to this area is consistently growing up (the cost of the security of the Olympic games of London 2012 is five times the cost of the security of the Olympic games of Barcelona 1992). In this point, we can ask ourselves a prospective question for Tokyo Olympic Games in 2020: How sports delegations and international spectators would have reacted during the earthquake, tsunami and nuclear accident of March 2011? During the event or after it, would it have triggered an annulation of the holding of the Olympic games?

---

<sup>17</sup> Gestes de premiers secours : une responsabilité citoyenne Note d’analyse 321 février 2013 Centre d’analyse stratégique

<sup>18</sup> Report by the preliminary task force on rolling out first-aid training to French citizens, submitted on 20 April 2017 to Mrs. Juliette Méadel, then-Minister of State reporting to the Prime Minister, with responsibility for victim support: <http://www.gouvernement.fr/remise-du-rapport-de-patrick-pelloux-et-eric-faure-a-juliette-meadel-sur-lageneralisation-au-plus>

<sup>19</sup> Shih, Gerry. 2012. Over 20 million tweets send as Sandy struck. Reuters. [Online] 2012. [Zitat vom: 03. September 2014.] <http://www.reuters.com/article/2012/11/02/us-storm-sandy-twitter-idUSBRE8A116020121102>

<sup>20</sup> For instance, apps such as Qwidam, SAIP, SignAlert, Staying Alive, SismoCom, Alertecitoyens, and services provided by web companies such as the Ushahidi collaborative mapping service, the Facebook Safety Check button, and services like Google Public Alerts and Google Person Finder.

This questioning takes the organizers into a crisis of rupture. To face this major challenge, the host countries must take into account the behaviors of populations to respond to catastrophic situations.

TOKIO 2020, BEIJING 2022, PARIS 2024, the local organizing committees for the next games should ask themselves: Why and how to integrate behavioural reactions of populations (habitants/spectators/ sports delegations) to respond to serious events.

The “Why”, in the question, defines the sense of actions, and the “how” defines the method to be used.

Certainly, we talk about populations because the heterogeneity of groups of individuals (origins, ages, languages, knowledges, territories, level of discipline) need to have a specific and different approach in the integration of behavioral reactions. (Alexander, 2014)

In summary, the organizing countries of the Olympic Games must integrate knowledge, return of operating experiences, and the scientific states of art from the last 50 years:

- Disaster Planning Does Not Go as Planned
- Victims Respond with Collective Resourcefulness
- The Majority of Lives Will Be Saved by the Public. We must stimulate mutual assistance to develop safety regarding Olympic Games.
- Panic and looting Is Rare
- Social Factors to Be Considered in Planning

Incorporating this thinking into preparedness planning and operational response will ensure that technology developments and doctrines had better reflect the reality on the ground. Current and future research projects conducted by the Crisis Management Chair, designed in partnership with experts, civil society and industry, focus on rebuilding close ties between the emergency services and the public in civil security and national security crises. This operational-focused research will support social and technological innovation that will help to improve safety and security at major events.

## **References**

Alexander, D., & Sagramola, S. (2014). Including People with Disabilities in disaster Preparedness and response. Bruxelles : EUR-OPA. Récupéré sur [www.coe.int/europarisks](http://www.coe.int/europarisks)

Adrot, A. (2010). Quel apport des technologies de l’information et de la communication (TIC) a l’improvisation organisationnelle durant la réponse à la crise ? Thèse en science de gestion. Université Paris Dauphine

Appéré, G. (2006). Gestion des risques et informations exogènes. *Revue française de gestion* n°162, pp63-76.

Auf Der Heide, E. (2004). Common misconceptions about disasters: Panic, the "Disaster Syndrome", and Looting, in: O’Leary M. (ed.), *The First 72 Hours: A Community Approach to Disaster Preparedness*, pp. 340 – 380, Lincoln, Nebraska.

Avdeyva, T., Burgetova, K., Welch, I. D. (2006). To help or not to help? Factors that determined helping responses to Katrina victims. *Analyses of Social Issues and Public Policy*. 6(1), 159-173.

Barsky, L, Trainor, J., Torres, M. (2006). *Disaster Realities in the Aftermath of Hurricane Katrina: Revisiting the Looting Myth*, Quick response Report, nr. 184, University of Delaware.

Crocq L. (2013). *Les paniques collectives*, Paris, Odile Jacob, 380 p.

Crocq L. (2007). *Traumatismes psychiques. Prise en charge psychologique des victimes*. Elsevier-Masson.

Decrop, G. (2014). Temps de crise et temps ordinaire. Un itinéraire de recherche à côté de l'institution. *Communications N°94*, 31-46, p.37-38.

Dezecache, G. (2015). Human Collective Reactions to Threat, *Wiley Interdisciplinary Reviews : Cognitive Science*, vol. 6, no 3, p. 209-19.

Douvinet, J. Gisclard, B. Kouadio J, Saint Martin, C. Martin G. (2017) Une place pour les technologies smartphones et les Réseaux Sociaux Numériques (RSN) dans les dispositifs institutionnels de l'alerte aux inondations en France ? *Cybergeog : Revue européenne de géographie / European journal of geography*, UMR 8504 Géographie-cités.

Drabek, T.E. And Mcentire, D.A. (2002). Emergent phenomena and multiorganizational coordination in disasters: Lessons from the research literature. *International Journal of Mass Emergencies and Disasters* 20,pp 197–224.

Drabek, Thomas E. (2013) *The Human Side of Disaster*. Second edition, Boca Raton, FL: CRC Press

Drabek, Thomas E. (1986) *Human System Responses to Disaster: An inventory of Sociological findings*. New York: Springer-Verlag.

Drury, J. Cocking, C. Reicher, S. (2009). Everyone for Themselves? A comparative Study of Crowd Solidarity among Emergency Survivors, *British Journal of Social Psychology*, vol. 48, no 3, pp487–506.

Dynes, R. (2008). Review of mass panic and social attachment: The dynamics of Human Behavior, *Contemporary sociology*. 37(2) p139.

Federal Emergency Management Agency (2011). *A whole community approach to emergency management: Principles, themes, and pathways for action*. Retrieved from <https://www.fema.gov/media-library/assets/documents/2378>.

Gilbert, C. (2013). Risque. Dans I. CASILO, *Dictionnaire critique et interdisciplinaire de la participation*. Paris: GIS Démocratie et Participation, Récupéré sur <http://www.dicopart.fr/en/dico/risque>.

Glass, TA. (2001). Understanding public response to disasters. *Public Health Rep*. 2001;116(Suppl 2):69-73.

Helsloot, I. Ruitenber, A. (2004). Citizen Response to Disasters: a survey of literature and some practical implications. *Journal of contingencies and crisis management*. Volume 12, n°3

Glatron, S. (2004). Le citoyen et le politique dans la gestion urbaine des risques majeurs. *Écologie et politique*, pp85-98.

Johnson, NR. (1987). Panic and the breakdown of social order : Popular myth, Social Theory, Empirical Evidence, *Sociological Focus*, N°20 (3) p171-183

Le Bon, G. (1895). *Psychologie des foules*, Paris, Alcan.

Lecomte, J. (2012). Face aux catastrophes mortelles, la solidarité plutôt que l'égoïsme. Dans V. PRZULUSKI, & S. HALLEGATE, *Gestion des risques naturels, Leçons de la tempête Xynthia*. Edition Quae.

Lee, C. (2002). Panic: myth or reality? *Contexts*, p.26.

Lorenz, F. Schulze, D. K, & Voss, M. (2017). Emerging citizen responses to disasters in Germany. Disaster myths as an impediment for a collaboration of unaffiliated responders and professional rescue forces. *Journal of Contingencies and Crisis Management* 00:1–10. <https://doi.org/10.1111/1468-5973.12202>

Moscovici, S. (2005). *L'âge des foules*. Paris: Fayard.

Oberije, N. (2007). Civil response after disasters the use of civil engagement in disaster abatement. *Netherlands institute for safety*.

Padioleau, J. (2002). *Le réformisme pervers: le cas des sapeurs-pompiers*. PUF collection Sociologies.

Provitolo D., (2005). Un exemple d'effets de dominos : la panique dans les catastrophes urbaines, *Cybergéo : Revue européenne de géographie*, n° 328.

Provitolo, D et al. (2015). Les comportements humains en situation de catastrophe : de l'observation à la modélisation conceptuelle et mathématique », *Cybergeo : European Journal of Geography* [En ligne], Systèmes, Modélisation, Géostatistiques.

Quarantelli, E.L. (1989). The North Research on the Arkansas Tornado: A fountainhead study, Preliminary Paper #136, Disaster Research Center, University of Delaware.

Rodriguez, H. Trainor, J. & Quarantelli, EL. (2006). Rising to the Challenges of a Catastrophe: The Emergent and Prosocial Behavior following Hurricane Katrina. *Annals of the American Academy of Political and Social Science*, Vol. 604, Shelter from the Storm: Repairing the National Emergency Management System after Hurricane Katrina, pp. 82-101.

Solnit, R. (2009). *A paradise built in hell. The Extraordinary Communities that arise in disaster*. Viking.

Sullivan, Ht. Vos, M. (2014) Community resilience in crises: Technology and social media enablers. *Human Technology*, vol. 10, November, pp. 61-152.

Tierney. K.J., Goltz, J.D. (1998). Emergency Response: Lessons Learned from the Kobe Earthquake, <http://www.udel.edu/drc/preliminary/260.pdf>.

Tucker, A., & O'brien, M. (2011). Volunteers and Oil Spills – A Technical Perspective. *International Oil Spill Conference Proceedings*, 2011(1), abs273

United Nations Office Of Disaster Risk Reduction (2015). Sendai framework for disaster risk reduction. Retrieved from [http://www.wcdrr.org/uploads/Sendai\\_Framework\\_for\\_Disaster\\_Risk\\_Reduction\\_2015-2030.pdf](http://www.wcdrr.org/uploads/Sendai_Framework_for_Disaster_Risk_Reduction_2015-2030.pdf)

Waldman S, Yumagulova L, Mackwani Z, Benson C, Stone J. T. (2017). Canadian citizens volunteering in disasters: From emergence to networked governance. *Journal Contingencies and Crisis Management*. 00:1–9. <https://doi.org/10.1111/1468-5973.12206>

Wulff, K., Donato, D., & Lurie, N. (2015). What Is Health Resilience and How Can We Build It? *Annual review of public health*, 36, 361-374.