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PLUS: Earthquakes in Italy; Tehran Fire Department; TalkTalk cyber attack; Business resilience & continuity; Social media in emergencies; The growing use of child suicide bombers; Disaster diplomacy; Attacks on healthcare; Drones & capacity building; Safe surgery in crisis zones; Canada wildfire

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CRISIS RESPONSE

Editor in Chief

Emily Hough emily@crisis-response.com

Chief Scientific Editor

Ian Portelli, BCDM, PhD ian@crisis-response.com

Urban Resilience Editor

Andy Marshall andy@crisis-response.com

Design and Production

Tim Baggaley www.graphicviolence.co.uk

Subscriptions and Administration

Fmma Wayt emma.wayt@crisis-response.com

Director

Colin Simpson colin.simpson@crisis-response.com

Subscriptions

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comment

he global picture has darkened considerably on many fronts over 2016.

This year is predicted to .76 be the hottest on record, setting a new high for the third year running. The WMO said in November



that human-induced global warming had contributed to at least half the extreme weather events studied. These high temperatures help to fuel climate change and the ensuing deadly consequences many regions are experiencing.

A swarm of lethal earthquakes struck Italy this year (p14); Japan and New Zealand were similarly afflicted, thankfully with fewer fatalities.

Also released in November, the Global Terrorism Index (GTI) noted a ten per cent .80 decrease in terrorist acts in 2015, but it was still the second deadliest year on record - what will the figures be for 2016? The GTI said there were 5,556 fewer deaths in Iraq and Nigeria, ..84 attributed to Boko Haram and ISIL becoming weaker in these countries. But constriction of one part often leads to expansion into another: terrorism is leaching into other areas. On p46 we explore the growing use of children as suicide bombers. Although this may indicate a certain weakening of these terrorist groups, it is nevertheless a distressing and perturbing trend.

And of course major conflicts claim far more lives than terrorism. The feature starting on p50 explores the consequences for humanitarian actors attempting to operate in such hostile arenas. This segues into our feature looking at attacks on healthcare (p63).

We had hoped that by the time the journal was published a more positive picture would be emerging. But CRJ went to press in the week that east Aleppo lost its last functioning hospital after a relentless wave of airstrikes.

More positively, this issue also covers IT innovations developed to assist IDPs and refugees (p80); new medical equipment and research that can help in crisis areas (p74 and p78); and how robotics and drones are building capacity and fostering resilience (p84).

In a world where international humanitarian law is blatantly disregarded, where efforts to curb climate change often appear to be a Sisyphean task, and where civilians and those trying to assist them come under deliberate attack, maybe there are a few glimmers of hope amid the darkening shadows.

Emily Hough

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urricane Sandy, 2012: #Sandy garnered 20 million tweets after the storm struck 24 states in the USA (CRJ 8:4). This was the first time American authorities used social media on such a massive scale and the first time the Red Cross had set up a digital information processing centre. This was a watershed – the first emergence of a group of digital volunteers who mobilised to serve the authorities and the public during a crisis in what is now known as a virtual operation support team (VOST).

On November 13, 2013, after the terrorist attacks on cafés and the Bataclan concert venue (CRJ 10:4), #PortesOuvertes (open doors) trended on Twitter. In just a few hours, outside all official channels and public organisations, private citizens posted more than one million tweets offering accommodation to those with nowhere to go. This offer of help was a citizen initiative, organised by citizens for citizens, with no infrastructure, command or hierarchy behind it. There was no organisation of the offers and the requests, simply a keyword shared on social media, which clearly manifested itself as a tool of population resilience.

During the Paris region floods of June 2016 (CRJ 12:1) #Inondation (flood), social media took a more concrete aspect in direct connection with operational issues. Taking one example among many: a couple was safe in their building and chose to stay when the fire brigade wanted them to evacuate – they had a cellphone, food

Technology and social media mean that those in command of an incident might have less immediate information about the situation than people on the ground

Monthira Yodtiwong | Shutterstock

and water, and were safe on an upper floor. The next day, French digital volunteers detected that their daughter was worried because she had no news of her parents. She searched for information on social media and asked if anybody had seen them. The fire brigade was notified by the volunteer team and went to the site. By then, the couple's cellphone battery had run out of charge, they had run out of drinking water and were unable to cook. They were evacuated by the fire brigade. This demonstrates the vital emerging role and function that social media can take during severe emergencies.

For decades, academics and analysts have underlined the importance of emerging organisations that can take action and bring their own solutions during disasters. Now, with social networks, this public self-organisation has become infinitely more spontaneous, powerful and useful.

Citizen organisations can help to improve the warning stage, to strengthen the solutions and to get better and more appropriate organisation on the ground, especially when official emergency response resources cannot be immediately present.

Some people view social media as an intrusion, representing a challenge, seeing it as disturbing the central paradigm of command and control. This phenomenon goes beyond well-known and much praised 'empowerment' or grass root dynamics. We live in an era of autonomous and swift

mobilisation of citizens, for citizens and by citizens. The DNA of our high complexity and rapid processing societies has evolved; connectivity in real time has become a vital resource.

In other words, as shown by a myriad of recent examples, social media has become a central and decisive element in the realm of crises. Social media tests and questions official claims of a desire to see citizens directly engaged in their own safety and security in difficult times.

Moreover, it is crucial for any official to envision social media as a useful tool for authorities, as it has the potential to provide better information, better warning and mobilisation, leading to a more powerful and adequate collective response.

The challenge is evident, especially to those authorities tasked with responding to emergencies - social media can mean that those in command have less information than those on the ground. The flash flood of information is the first wave; the second shockwave is when people in the midst of a large-scale event mobilise, network and take the initiative. This is the world of high-speed connectivity and a poorly prepared official will be stunned and feel threatened by possible false information, dangerous initiatives and loss of control. Sadly, some still view this as competition to their duties, a threat to his or her mission and organisation. If this is the case, social media appears to be an unwelcome intrusion, a source of impossible problems and not a key resource that can be harnessed.

In such instances, social media will be fought or ignored. Again, the words of the House of Representatives in the Hurricane Katrina report will resonate: "Why do we continually appear to be a disaster behind?"

The only possible way for officials in charge is to enter the world of social media for emergency management (SMEM), adjust rapidly and make the best of this new deal.

The bad news is that the move is far from easy: operational responders and authorities have neither the culture, the time, the tools and the skills to set up a SMEM team within their organisation The good news is that there is a growing awareness of the urgency to abandon resistance to change and to tackle these uncomfortable realities.

The best news of all is that

few years to offer support to official circles in bridging these gaps, especially with regard to harvesting and analysing information and data from social media, and linking with citizens on the ground. In France and in the French-speaking world, the role of VOST

is performed by a network called International Volunteers for Virtual Operation Support (VISOV). This network's mission is to monitor social media during major events, detect people in services. VISOV also aims to build up a synthesis of operational capture a major and fuzzy event; geolocation-based testimonies to locate specific development or involved people; detecting rumours and defusing them; and detecting emerging initiatives.

VISOV federates volunteers and organises in-house mobilisations during crises. Each volunteer brings his or her own skills and experience. This human factor forms the strength of the association and makes the wealth of exchanges possible.

The association helps officials to develop in-house SMEM skills by sharing experience and feedback, and collaborates more widely in the development of SMEM in the Frenchspeaking world and beyond (VISOV is a member of the European VOST and of the world level VOST Group).

Reliability and robustness

In the last three years, SMEM and VISOV have developed further. An increasing number of volunteers have joined the association and an increasing number of national and regional authorities have signed formal agreements with VISOV. Every single event triggers new reinforcements for association membership and enhances its official recognition.

In parallel, VISOV is increasing its reliability. Procedures and tools are becoming ever more robust – especially monitoring tools, reporting formats and channels. For the immediate future, work is ongoing to increase the overall capability of the network, which means meeting some stimulating challenges:

- **Growth:** A smooth transition from an organisation of 100 towards a mega-group of several thousand members within the French speaking world;
- **Dynamic equilibrium:** Formalising tools and processes, while

keeping the spirit of a citizen association (being professionals but remaining volunteers);

- **Recognition:** Developing official recognition and agreements to improve the efficiency of VISOV messages (approvals of public safety association by national authorities and Twitter account certification);
- Psychological support: Developing support for volunteers after gruelling mobilisations – volunteers are also exposed to exhaustion and psychological effects; a psychologist is already prepared to assist at any time; and

Strategic support: Developing a specific unit that can stand back to help the association to keep global awareness and an eye on the myriads of quagmires to be avoided.

In conclusion, SMEM is a major stake for authorities: if they do not embrace it now – even if this might seem difficult and counterintuitive – they will lose the battle of modern crises.

And the challenge is severe, since this is an incredibly fast developing arena that is going to fundamentally transform crisis navigation. Those who do not engage with SMEM are at risk of defeat in every single emerging crisis.

But the experience gained at this stage is very rewarding: progress is possible, and can be extremely rapid.

Authors

Dr Ludovic Blay is co-founder of the

Volunteers for Virtual Operation Support (VISOV), and a consultant for People Know. After his PhD, Blay worked for ten years in a French risk and crisis management company. He has been working on SMEM with VISOV and his own company for five years.



Dr Patrick Lagadec is a former senior scientist of research at

the Ecole Polytechnique in Paris, France, and a Member of CRJ's Editorial Advisory Panel. He has recently published Le Continent des imprévus – Journal de bord des temps chaotiques, CR | Paris, Les Belles Lettres, 2015



Example of two tools set up by VISOV for authorities that mobilise the association: a deployment file and a collaborative map

some advanced groups of people have networked over the last

distress and relay this information to fire brigades and emergency information for the authorities. This includes: Photos or videos to