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Over the edge of the world

Magellan utilised novel tactics to master a great ocean and overcome a sea of ignorance. **Patrick Lagadec** contends that we are faced with similar challenges today, and need a new cosmology to face 21st Century crises

“THROUGHOUT THE 16TH CENTURY, the calculations and theories of ancient Greek and Egyptian mathematicians and astronomers served as the basis of cosmology, even as new discoveries undermined time-honoured assumptions. To reach his goal, Magellan had to master both a great ocean sea and a sea of ignorance. His sophisticated approach to navigating uncharted waters went far beyond technical ability in boat handling and direction finding; it revealed an ability to deploy novel tactics to overcome one of the great challenges of the Age of Discovery: how to guide a fleet of ships through hundreds of miles of unmapped archipelagos in rough waters.”

This quote derived from Laurence Bergreen on how Magellan challenged established thinking, culture and procedures, illustrates how we are faced with the need for a similar breakthrough in 21st Century crisis strategy.

MORE OF THE SAME?

“Why are we continually a disaster behind?” asked the US House of Representatives. This is the key question behind ‘failures of imagination’ or ‘initiative’ and ‘normal fiascos’ in crisis management.

Crisis after crisis, we react as if programmed merely to call for more of the same: more ready-made answers, more plans, more command and control.

The good news is that some are beginning to understand that the emerging contexts of the 21st Century demand a decisive breakthrough in crisis culture and strategy. Like Magellan, we need a new cosmology; simply refining the old one will not do and the time has come

for us to take the risk of sketching new maps, and devise new strategies, tactics, models of education and training.

Everyone agrees that Hurricane Katrina was a traumatic fiasco. But no country can claim that it would have done much better. In the aftermath of a catastrophic crisis on this scale, a post-event report in any country, would most certainly repeat the same conclusions.

The House of Representatives said: “Our report is a litany of mistakes, misjudgements, lapses and absurdities all cascading together, blinding us to what was coming and hobbling any collective effort to respond.” Meanwhile, the US Senate commented: “...The response to Katrina revealed... confusion, delay, misdirection, inactivity, poor co-ordination, and lack of leadership at all levels of government.” The Rand Corporation concluded: “The single most important problem was the speed with which the nation’s local, state, and federal civilian organisations were overwhelmed. However, problems also arose in the military response.”

The similarities among these reports point to the fact that Hurricane Katrina was a global warning, pushing universal challenges into the spotlight.

First, Katrina is the kind of cataclysmic event that is becoming increasingly common. Second, we are overwhelmed strategically by challenges of such scope – “Our current system

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for homeland security does not provide the necessary framework to manage the challenges posed by 21st Century catastrophic threats,” according to the US White House. Third, we are reluctant culturally to make the drastic changes necessary to meet the challenge, as evidenced by this quote from the US House of Representatives: “Many government officials continue to stubbornly resist recognising that fundamental changes in disaster management are needed.” Of course, at the level of tactics and assets, much can – and must be done – to strengthen our operational capabilities and to train people at all levels. But it is crucial to go beyond this and avoid being trapped in a ‘more of the same’ strategy when the real challenge is that the theatre of operations must be entirely reappraised.

OUTDATED MODEL

Our emergency culture is embedded in an outdated model. In the last century, a crisis was defined as a difficult problem that could be resolved and overcome through rapid response; we simply had to be ready to bring the necessary means to bear in order to return to normality. The problem was specific, isolated and the context stable. Today’s events can be much more disruptive, they occur in contexts that have become fundamentally unstable, in continuous mutation; connectivity is the leitmotif of our strengths and weaknesses; speed is the name of the game. Any event, not only ‘Category 5’ disruptions, can trigger the unthinkable domino effects of conflation.

So crisis management now goes beyond emergency response. We have to adapt accordingly:

■ **Intelligence:** We used to have a static approach, with pre-designed categories of disasters, pre-planned answers, pre-defined organisations and chains of command. Today, we must develop a new intelligence model for chaotic environments, when nothing is stable, where a minor loss of balance can lead to collapse and any action triggers multiple reactions. We must develop Rapid Reflection Forces to develop new tools of understanding and to invent uncharted paths through *terrae incognitae*.

■ **Organisation:** Our plans were nested neatly like Russian dolls, with separate strata at local, state, national and international levels. We must create more complex dynamics,

moving away from sequential logic, and adapting to gaps, fault lines and partitions, which are the essence of crisis contexts. Biology is the appropriate reference, not mechanics; the solution lies in weaving ‘smart textures’, rather than building walls. ■ **Leadership:** Traditionally our managers have relied on a set of best practices. Now, as the White House has said: “At all levels of government, we must build a leadership corps that ... must be populated by leaders who are prepared to exhibit innovation and take the initiative during extremely trying circumstances”. ■ **Networks:** We used to require a clear definition of who was in command, and comprehensive mapping of the stakeholders who should be co-ordinated. Today we must adapt to increasingly complex networking processes, and realise that preparation, action and reaction involve a kaleidoscope of players. Speaking of partnerships while stuck in an outdated culture will lead to failure. We need a ‘global new deal’, which will redefine the roles of each player and especially the repartition of tasks among public authorities and critical network operators.

■ **Empowerment:** Our leaders used to obsess about the risk of public panic, even though historical evidence shows that the public will most often be resourceful and composed, and panic more often strikes governments. Empowerment must be an omnipresent building block in the systems we build. This means that we must rely on trust, beyond the usual command and control principle. But leaders who are themselves scared and unprepared most often prove radically incapable of trust and effective empowerment. This is a recipe for more fiascos.

■ **Communication:** We used to rely on stable and identified avenues of communication. But now we must find innovative pathways in very unstable contexts, with many ever-changing unknowns and a dizzying number of actors. Communication is now the cornerstone of the whole process: to link people, to adjust to a very rapid mutating environment. The challenge is daunting, as identified in a US House of Representatives report: “We are still an analogue government in a digital age... we are woefully incapable of storing, moving, and accessing information – especially in times of crisis”.

Technical sophistication should not obscure the fact that even basic communication can be at risk. Breakdowns combine into vicious circles that transcend all neatly laid-out allocations of tasks, as explained in an official report after Katrina: “Restoring phone service requires more than waiting for the flood waters to recede and restoring power. While many cables may be salvageable, the electronics

that pass the signals across those lines will need to be replaced. Jim Gerace of Verizon Wireless noted: “It’s essentially analogous to putting a PC in your bathtub. It’s not going to work once it dries.” However, the most pressing challenge in terms of information sharing is, again, cultural. Satellite phones and Blackberries are little help if turf wars make their users reluctant to communicate.

Even if stakeholders are familiar with one another, are they culturally willing and able to communicate instantly with others in fast-changing contexts, and without perfect information or clear chains of command?

COMPLEX SOCIETAL TEXTURE

■ **Recovery:** The issue is no longer about restoring walls, bridges and roads, it is essential to build into the system, years in advance — and not the day after a disaster — the conditions that will help a complex societal texture to find new sustainable dynamics in a fast-moving environment. The Whitney Bank in New Orleans already understands and has adopted this approach. “Whitney’s new technology infrastructure is designed to achieve four strategic goals: less exposure to natural disasters; more resilience in the face of threats; greater flexibility to respond to changes in the environment; and faster recovery in response to disaster,” says Vice President Rodney D. Chard.

■ **Education and training:** We used to train people to apply a known set of rules. We now have to educate them to face the unknown, and be creative, even if the process is untidy. As specified in the White House report: “When training, Federal officials should not shy away from exercising worst-case scenarios that ‘break’ our homeland security system.”

A static stance is lethal in a rapidly evolving world, where speed and connectivity are vital to safety and sustainability. It is crucial to think and act differently. The issue of systemic crises has to be put high on the agendas of all heads of state. Let’s not allow the next event to be the wake-up call for strategic initiatives. CRJ

AUTHOR

Patrick Lagadec is Director of Research at the Ecole Polytechnique in Paris and is CRJ’s Editorial Advisory Panel advisor on unconventional crises. He has extensive experience of direct involvement with critical infrastructures and vital networks operators internationally. The title ‘Over the Edge of the World’ is borrowed from Laurence Bergreen’s book

