Two cans of 'coca-cola' and a piece of string: Developing standards for non standard events

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We frequently find ourselves confronted with new and more difficult to understand situations which challenge our capability to respond. Events sometimes described as 'black swans', 'disaster/catastrophe', 'low probability high impact events' or even 'acts of god' have the ability to suddenly transform the familiar and safe world we live in, to a scary, and unfamiliar territory, where the normal rules of engagement no longer apply.

This presentation will look at the reasons why these types of events are more likely to occur and consider how organizations and societies can begin to develop their own resilience capability. Frequently, the solutions and strategies we currently use for a well managed society and for risk prevention are actually part of the problem in terms of a response capability for crisis events.

The inspiration for writing this paper arises from my involvement as an advisor to a Cabinet office appointed team involved in writing the new standard BSi PAS 200 on Crisis Management. It is increasingly being recognized that standard well rehearsed contingency plans are no longer appropriate or effective in response to the complex requirements of a number of modern civil crisis. Sometimes they are natural events that impact on modern ways of living, for example the 2010 earthquake in Iceland and aviation, or the 2011 tsunami in Japan and its effect on the Dai Chi nuclear power plant at Fukushima. Sometimes these events are man-made such as the power cuts in India this year, leaving 710 million people in the dark in India effecting transport, and all sorts of unanticipated mini crises such as trapped miners underground, even a back log of bodies as crematoria were left without power.

The last few decades have seen rapid and ongoing changes to the way we live and inhabit this planet. We communicate, travel, consume more frequently and in more different ways than ever before. Mobile and internet communications not only structure our movements, but even take place as we move around. The rapid movement of basic resources, such as fresh food is only possible thanks to enhanced transportation, communication and logistics, and oiled by a continual complex network of communications and interactions. The consequence of this social and economic reliance on technology, has serious implications for the resilience of society, raising a number of interesting questions. If, suddenly, the technology was simply not there, how, could/would we cope? A total failure of telecommunications at some point is an issue that has not yet been encountered on a mass scale. We should not, however, assume that the absence of such a mass failure does not mean it could not happen, simply that it has not happened yet.

New kinds of disasters and crisis are emerging caused by changes in the way we live. Natural phenomena such as earthquakes, floods, wind, drought and tsunami are not at all new, but higher levels of population density, travel and mechanized forms of food production and a reliance on technology to facilitate modern life styles, mean that when these events do occur, they will have a potential to cause serious impact to greater numbers of people. It is expected that world population figures will by 2010 reach 10 Billion people. The earthquake and tsunami off the east coast of Japan last year is a good example of this, the Tsunami clearly had a major impact on coastal communities, but it was the nuclear reactor at Fukushima that was most notable in terms of impact. Similarly, the cloud of dust from the Eyjafjallajokull Volcano in Iceland produced ash, which would not have been problematic had it not been for the invention of modern air travel and hence the danger to aero engines. Our reliance on energy, particularly gas and electricity opens up new vulnerabilities. The power cuts in New York City, which only lasted only 18 hours provides another example of the extent to which society has become dependent a continued supply of electricity to power everything from heating and air conditioning to charging our phones and lighting. If this power cut had been for 28 or even 38 hours the effects would have been more strategic.

Not so very long ago, I was raised in what sociologists might refer to as, 'a nuclear family' unit. My parents who lived through the Second World War, maintained a larder full of dried, tinned and preserved foods, a garden stocked with coal and wood was there for our heating and could also be used to cook. We had an old fashioned land-line telephone, and candles in case there was a power cut. In terms of resilience we could exist for some weeks if we had to from our supplies, provided we had access to fresh water. The majority of our food and fuel was either immediately local or at least from other parts of the UK (for example coal). The key to resilience in this type of society, was in the value of storing if not hoarding of basic requirements for life, in case there were interruptions of supply. Communication was face to face, by telephone or letter, mass communication by radio, newspaper and later on television.

To contrast with today's modern family unit, frequently smaller than before, and sometimes, even a single occupant. The modern family is highly reliant on local supermarkets, which in turn are highly reliant on just in time deliveries from a complex system of supply chains all over the world. In the UK, four supermarkets seem to supply the requirements for 85% of food for nearly 70 million people, another 10% by a mere handful of smaller supermarkets. Fuel too, is also less local, frequently now, gas, piped for thousands of miles across continents, the electricity we use is also likely to have been generated far away. Storage, the perfect enemy for the just in time society, is something to be avoided, or at the very least, downsized. Most people today live in smaller homes powered totally by electricity or electricity and gas, limited foods are stored electronically in a fridge or freezer, and the same energy will be used for cooking. A sustained power cut on this scale could mean, particularly in winter large parts of the population being unable to live in their own homes.

Our communication has also altered radically; internet, text, mobile telephones, and a bewildering variety of applications allowing one to virtually meet, conference and interact. Gone are the public phone boxes, 3G. 4G and now 5G will gradually replace plug in internet. A failure of mobile communications would certainly represent an interesting crisis in terms of testing and exposing the incubating fault lines where catastrophic failure might reside. Responding to crisis events, is a challenge, because they represent failures in unknown

contexts. The main concern here is the extent to which we as a society are prepared for dealing with this.

In 1992, Ulrich Beck, in his book, 'The Risk Society', outlined a new order of thinking from one in which society would shift from quantity to quality of life. Instead of concerns about sufficient resources to supply the basic needs of populations, particularly in the advanced economies, today's focus is increasingly about the quality and riskiness of those resources. Evidence for this can be found in virtually every aspect of our lives. Food in supermarkets and eating establishments, is increasingly segregated in terms of its wholesomeness and quality, reflecting popular perceptions that organic and naturally produced offers less in the way of risk to health and well being than mass produced rival products. As predicted by Beck, one can now buy apparent safety and security simply by paying more. Vehicles that we purchase are another similarly segregated example, with the more advanced and expensive ones offering an apparent higher degree of safety and comfort than more basic models. Even commodities like education could be viewed in this way. In this respect, the Risk society outlined by Beck (1992, 2009) has indeed become a reality. Whether it be food, travel, education, health, housing, holidays and the list goes on, frequently now the question is not can I afford to have it, rather than how safe is it.

However, the debate about risk in the academic literature and also in popular and professional discourse has been and remains problematic. The assumption that with reasonable foresight risk can be properly managed or even eradicated altogether, has proven to be a dangerously false assumption. Often well intentioned and rigorously applied attempts to eradicate risk have even actually added to the problem. Attempts to engineer training, systems, communications, organizational culture, perceptions have led to an increasingly risk averse society, sometimes the effort and resources that go into preventing risk are actually greater than the negative consequences of the risk itself. Attempts to bring about standards of operation and enforce compliance raise serious questions about the effectiveness of our organizational systems to perform their primary tasks as operational and administrative systems lock horns together.

The recent experience with terrorism has acted to highlight this concern further, as small groups of isolated terrorists with relatively primitive equipment are able to create huge crises for modern society. The effects of 9/11 in New York, 7/7 in the UK, Madrid, Bali and Bombay bombings, illustrate the extent to which the systems we rely on are fragile and always just a short step away from systems failure, ironically in all of the above mentioned events one of the first systems to fail was the mobile telephone network.

The current initiatives from Governments, in the UK and Internationally, to roll back the tide of regulation are an illustration of this. It is hard to think of a single area where risk management can be deemed to be working satisfactorily, at the very least without increasing risk in another part of the system (Risk Homeostasis). The reason for this is that society is dynamic, complex and in a constant state of mutual construction, constantly changing to use our resources more efficiently, safely, and in order to supply an ever increasing and discerning population.

Risk management is about prevention, it is also about an assumption that we understand the system and its properties, low frequency events, or at least events taking place only every 100 years or more, are not likely to be foremost in emergency planers minds. The permutations

of ways in which things can go wrong, make an effective a priori risk assessment, although socially desirable, almost impossible.

Hence the ability to be able to respond to unforeseen events using a group of generic and sometimes less formal skill sets is required. In order to respond to complex crisis events, requires a different approach to that of risk prevention, instead of rule conformity and compliance, it is flexibility and sometimes a disregard for those rules that will enable us to continue to operate. Or as Albert Einstein would have put it: 'The significant problems we face today cannot be solved at the same level of thinking when we created them'. Developing solutions to crisis events requires decision makers to explore informal systems, change communications and work in unorthodox ways.

Crisis management, typically, is about non standard events. Population growth, global warming, food and energy shortages and an increasing reliance on just in time communications and transport means the future is one of many new complex crises. The idea of creating a standard, for non-standard events, has proved to be one of the most novel and exciting tasks of the last 20 years. Clearly the PAS 200 represents version 1 of the first ever standard for crisis management, it will be improved on in future versions, as I present this, the standard is already being developed into a full standard and subsequently an ISO, but it is a start in the right direction.

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