

Further explication of mega-crisis concept and feasible responses

Victor Yew-Cho Yen^{1,*}, and Charles T. Salmon²

^{1,2} Wee Kim Wee School of Communication and Information, Nanyang Technological University, Singapore

Abstract. The contemporary world is in an era of mega-crises, caused by a host of physical, economic, political, social, and cultural factors. Through a step-by-step explication of the root concepts of *problem*, *mess*, and *crisis*, a mega-crisis is posited to be a set of interacting crises that are severe in impact, complex in nature, and global in fallout, with no seeming end in sight. Compared to a crisis, a mega-crisis is higher in severity and deeper in complexity. The paper argues for a stakeholder perspective in mega-crisis response, as relying on the organizational standpoint is inadequate for reaching long-term resolutions.

1 Introduction

In spite of its many innovations, opportunities and resources, the contemporary era can be viewed as one of a series of mega-crises, caused by a complex interplay of physical, economic, political, social, and cultural factors [1]. Due to its scale, complexities, and impact on many publics, the African famine can be considered a mega-crisis, i.e., “a complex constellation of political, religious, cultural, and commercial crises involving not only the media, governments, ambassadors, religious leaders, and citizens from many countries, but also private companies...” [2]. The issues are multi-faceted and related.

At the crux of the famine mega-crisis is a series of interacting problems, messes, and crises. These are some of the contributing factors [3]: Poverty; increasingly unpredictable weather which has the potential to reduce annual crop yields; drought; groundwater contaminated by pollution and deadly microorganisms; diminishing grain reserves; differential access to global commodities markets; distribution problems in allocating food resources; corruption; the variable price of oil; increasing meat consumption and concomitant diversion of grain to livestock rather than to humans; and increasing proliferation of agro-fuels, which similarly diverts grain away from human consumption.

Despite awareness of these various factors, responses by most international agencies remain predictable with every cycle of the famine problem in Africa: Provide food aid, provide loans to buy food (with interest), and provide technologies for more productive and efficient farming. Such seemingly reasonable measures, predominantly driven by authorities, are limited in their effectiveness because they fail to address the multiplicity of factors involved. Long-term solutions lie within a much broader web of social, political, and economical entanglements.

The paper endeavors to further the explication on *mega-crisis*, as guided by the *logic of concept explication* process [4]. This includes describing what a mega-crisis is and why it is different from conventional definitions of a crisis; examining empirical properties of a

* Corresponding author: yuen001@e.ntu.edu.sg

mega-crisis; and developing a tentative conceptual definition. The paper also discusses feasible responses to a mega-crisis.

2 Significance and opportunities

Currently, the application of crisis communication theory in a mega-crisis is inadequate. This is primarily because most seminal research responses are grounded in the perspectives and interests of an organization or perhaps an industry, which is insufficient in understanding a mega-crisis. Second, current definitions of a mega-crisis require further explication, as there are more attempts to define a mega-crisis in terms of what it is not rather than what it is. The paper begins by tracing the root concepts of problems, messes, and crises.

3 Literature review

3.1 Root concept: Problem

The explication process starts with tracing the root concepts of crisis and examining the critical similarities and differences in their escalating properties. At the most basic level is a *problem*. A problem must satisfy three conditions: "First, a decision-making individual or group has alternative courses of action available; second, the choice made can have a significant effect; and third, the decision maker has some doubt as to which alternative should be selected" [5]. A problem tends to be defined at a micro level, i.e., involving an individual or organization facing a decision.

There are three generally accepted ways to manage a problem: Resolve, solve, or dissolve [5]. First, the clinical approach would be to resolve a problem by choosing the method that yields a good-enough outcome, based on past experience and consultation of best practices. Second, the research approach would be to solve a problem by achieving the best results based on empirical evidence from primary research or statistical modeling and simulations. Third, the design approach would be to dissolve a problem by changing the environment in order to remove the problem [6]. It demands a different way of approaching the issue, by seeing the problem and possible solutions from a structural perspective.

3.2 Escalated concept 2: Mess

The next escalated concept from a problem is referred to as a *mess* [5], which is a large and complex set of interacting problems. Problems constituting a mess rarely can be clinically separated and analyzed for solutions [7]. In this regard, any single solution that professes to effectively solve or resolve a mess can only mean a misreading of the situation, i.e., it would not have been a mess, much less a crisis. A mess is the outcome of interacting problems [8] and is more complex than a single problem. Problems and messes also typically do not reach the threshold of media attention, which is a key factor to distinguish problems and messes from the more severe stages of crises and mega-crisis. An example of a mess would be to discourage anti-littering behavior. Interacting problems may include a lack of litter bins, inconspicuous litter bins that are badly designed and placed in less-accessible spots, poor enforcement of anti-littering penalties, and dim lighting of the area etc. Resolving any one of these problems may not resolve the mess, as problems are intertwined. It is possible that all related problems have to be tackled holistically in order to yield positive results from the mess.

3.3 Escalated concept 3: Crisis

A *crisis* can have severely negative consequences for an organization. It is not a normal occurrence in the everyday flow of business. Defined as “a turning point for the organizational life” [9], it usually changes an environment drastically and irreversibly. A crisis is also a disruption that can threaten the existence of an organization [10]. The severity can “damage – even terminally – a company and individual careers, and can produce interminable legal suits and government investigations that can disrupt operations and smooth running of a company for years” [11]. This impact has largely to do with the presence of media as a *multiplier* in amplifying the crisis [12], thus exposing the reputational assets of an organization to risk.

A crisis goes through five common stages: detection, prevention or preparation, containment, recovery, and learning [10]. Detection involves the noting of warning signs that can lead to a crisis if unabated. Prevention involves either averting the crisis, lessening the impact of the crisis, or limiting the duration of the crisis. Crisis preparedness, which is driven by perceived seriousness and perceived controllability, can result in an organization’s willingness to plan for a crisis scenario [13]. Containment refers to efforts that limit the duration or the spread of the crisis. Recovery happens when the organization adapts to an altered environment and set of practices precipitated by the crisis. Lastly, learning is the process of studying the crisis and taking stock of losses and gains. Learning will also improve detection of warning signs in the future.

The way crisis stages are managed is determined by an organization, as it both faces adverse consequences and possesses resources to ameliorate the crisis. The organization can adopt either a managerial perspective or a political perspective [14]. The former involves crisis managers devising a comprehensive strategy for crisis response. Most crisis theories have been derived from a managerial perspective: Apologia theory (to defend and protect image), image restoration theory (what is threatening image and which publics must be managed to redress image loss), decision theory (issues management and crisis prevention strategies), diffusion theory (how new procedures are accepted by the organization), and excellence theory (how organizations communicate with stakeholders) [10]. These theories consider organizational interests as a start point.

The latter – political perspective – is less concerned with functional responses to a crisis, and is purposed towards understanding its “social significance and political management that is partly determined by [its] psychological impact on the communities affected and the political choices that play up or down the importance, unacceptability and urgency of the events” [14]. In consulting the perspectives of affected stakeholders, the organization is able to assess the crisis comprehensively. The political perspective accepts a crisis as an ill-structured mess, which is an interacting set of ill-structured problems [8]. An ill-structured crisis, in turn, means that stakeholders have differing views, according to different backgrounds, values and interests. A political perspective posits that “every crisis is an existential crisis in meaning” [7].

3.4 Escalated concept 4: Mega-crisis

A *mega-crisis* is more severe and complex than a crisis, where both managerial and political perspectives are required to manage the situation. This is because a mega-crisis creates “deep uncertainty, and evoke(s) an extreme sense of urgency” [15]. Together, these two components are seemingly incompatible because a problem with *deep uncertainty* requires time to unravel, yet time is not available due to *extreme urgency*.

It is the *extreme urgency* of a mega-crisis that demands a managerial perspective. Due to media pressure, an organization must provide immediate relief to save lives and preserve property. However, as in the case of the African famine, quick and necessary responses in providing food aid, for example, do not address the core issues of a mega-crisis. Urgency can be a *red herring* to the real issues of a mega-crisis, where stopgap measures masquerade as long-term solutions due to public pressure.

Proposition 1a: A managerial perspective, adopted by the organization in a mega-crisis, is likely to meet urgent stakeholder needs.

Proposition 1b: A managerial perspective, adopted by the organization in a mega-crisis, is less likely to provide long-term resolutions.

Although the root word *mega* connotes *very large* or *out-of-the-norm* values, a mega-crisis is not *simply* a bigger crisis [16]. As mega crises evolve due to environmental changes, new emerging challenges require paradigm shifts in order for managers to cope. Consider the multifold complexities invariably linked with the concept of a *mega-crisis* – mega-disasters, mega-threats, mega-risks, mega-responses, mega-reactions and mega-opportunities – and one would begin to see the extensive work required in elevating crisis literature to mega-crisis levels. Thus, a mega-crisis has been defined as the “embedded engine of a chaotic world that evolves and mutates through global dynamics whose texture is made up of complex, unstable webs of constant, global, major dislocations” [16]. Globalization is a critical component in the identification of a mega-crisis [2, 17-18].

Also referred to as a *modern crisis* [8], a mega-crisis has an element of perpetuity, i.e., it is without a clear beginning or end. Characteristics of a mega crisis keep mutating [19] and its severity is not limited to the loss of lives and property, but potentially the legitimacy of the state as well. These challenge the five stages of a crisis because mega-crises remain in *prolonged limbo* [20], unresolved over time because of overwhelming complexities and waning public attention. Optimism bias, which refers to a perception that others are more susceptible to the risk of negative events, can happen to the organization [21]. This implies that mega-crisis managers may avoid or deny a scenario that is deemed too severe to comprehend. While a mega-crisis can be contained, recovery may not be in sight.

Beyond immediate responses in meeting extremely urgent needs, the political perspective is needed to address the component of *deep uncertainty*. Such is the level of uncertainty in a mega-crisis that past crises have limited value for understanding tomorrow’s crises [22].

To truly understand a mega-crisis requires an appreciation of a state of constant flux, and *black boxes* of various disciplines and their tensions. It is an *ill-structured mess* [8], where different groups of stakeholders will define its problems based on their “values, interests, education, personal history, and the organizations for which they work”. Every *modern crisis* is inter-disciplinary and even trans-disciplinary in nature, requiring a diverse community of professionals in many different fields for cooperation and integration in order to design a viable solution [7].

Proposition 2: A political perspective, adopted by the organization in a mega-crisis, is likely to provide long-term resolutions.

4 Discussions: Empirical Properties of a Mega-Crisis

The empirical properties of a mega-crisis are as follows. First, the mega-crisis is a complex set of interacting crises [5], in which there is “deep uncertainty” [15], and the absence of a simple or single resolution. An inter-disciplinary and even trans-disciplinary approach is needed to comprehend and manage this uncertainty [8]. Second, a mega-crisis has global implications [2]. Mega-crisis managers will need to grapple with the diverse cultural backgrounds and other differences of various publics. Third, a mega-crisis evokes a sense of perpetuity, with no distinct start and endpoint. Although intense media attention may heighten urgency in dealing with a mega-crisis in the short-term [19], media and public interest will decline when complexities unfold over time [20].

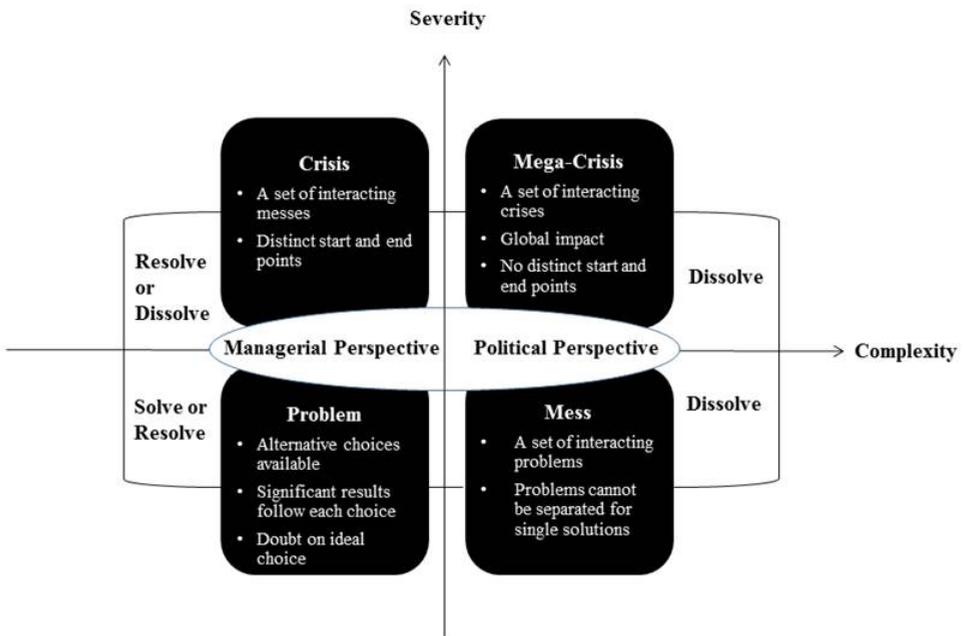


Fig 1. Mega-crisis mapping model

The mega-crisis mapping model is thus proposed. The x-axis illustrates the complexity and the y-axis illustrates the severity of a mega-crisis. First, a problem is low in complexity and severity, which makes it possible to solve it categorically or resolve it from a managerial perspective (organizational discretion). Second, a mess is high in complexity but low in severity. As problems are interacting, it is not possible to isolate them for resolution. Third, a crisis is low in complexity but high in severity. It is possible to prepare for and prevent a crisis from happening. It is also possible to contain and recover from a crisis, based how others have done so. As such, a managerial perspective can be applied. Lastly, a mega-crisis is the highest entity of the four in terms of complexity and severity. Mega-crisis managers have to deal with extremely urgent demands from stakeholders but yet be able to consider a long-term dissolution of the situation. Wide consultation of stakeholders will be required, through experts, in order to fully understand the situation, propose socially legitimate responses, and work with salient stakeholders to dissolve the mega-crisis in micro- and meso-levels.

4.1 Responding to a Mega-crisis

The design approach, which proposes changing the environment to dissolve a problem [5], is the most plausible approach. The main challenge remains an accurate identification of the current environment, which calls for a *motivational framing* of the issue [6]. Motivational framing examines the situation for its intolerable state and determines why people should care. In order to do this, a political perspective that incorporates the views of multiple stakeholders should be adopted.

A multivocal approach has been argued to be a feasible process for the gathering of stakeholder inputs in a mega-crisis [2]. Within this approach lies the consideration of a macro-rhetorical arena and the micro-rhetorical arena [2]. The macro-rhetorical arena examines dynamics between different publics and their relationships with each other, taking into account cultural and social contexts. The micro-rhetorical arena is an in-depth study into each communicative process, which consists of three elements in “crisis communication, sender and receiver” and four parameters of “context, media, genre and text” [2]. A multivocal approach in mega-crisis communication focuses on the connections between stakeholders and how they are forged.

Stakeholder salience can inform these connections in the macro-rhetorical arena. The stakeholder salience model [23], which singles out three attributes in power, legitimacy, and urgency, illustrates what captures the attention of the organization. Power refers to the ability to carry out one’s will to the extent of access to coercive (physical force), utilitarian (material or finances), or normative (symbols such as prestige, love and acceptance) resources. Legitimacy refers to socially accepted and expected structures or behaviors that may be interpreted differently at different stages of social organization [24]. And urgency refers to an attribute that has a time-sensitive claim that it is critical to the stakeholder. The more attributes a stakeholder group can muster or project to the organization, the higher the salience. The stakeholder salience model was later refined in a crisis setting and proposed another model with urgency as a key driving force [25].

However, in a mega-crisis situation that seeks to find long-term resolutions to a complex situation, urgency cannot determine salience. An alternative attribute can be one’s ability to adapt to environmental changes over time. In adaptability, there are signs of resilience, which also enhances salience in a mega-crisis.

The dissolution of a mega-crisis (changing the environment to remove a problem), can be found in the micro-rhetorical arena. There are conceptual clues that point to how rituals can constitute a legitimate mega-crisis response. Design-oriented planning suggests that to *dissolve* a problem, it is “to be carried out as participatory as possible, ideally providing all stakeholders – not just their representatives – with an opportunity to take part” [5]. Unlike a routine, which consists of habitual actions without meaning, a ritual involves symbolic communication [26]. In a ritual, the situation is regarded to be more significant than its participants, and its metaphoric interpretation from reality is always purposive [27]. Components of a ritual include “group assembly (physical proximity), barrier to outsiders, mutual focus of attention, and a shared mood or emotional experience” [28]. Through rituals, stakeholders will be able to organize and cope in various groups, take on different roles on multiple platforms, and experience a common reality. In summary, the practice of multiple rituals by multiple stakeholder groups contributes towards a collective resolution of a mega-crisis. Rather than rely on a single resolution, a mega-crisis should be tackled in smaller parts that organizations can work with stakeholders on.

5 Refining the definition of mega-crisis as a concept

Based on previous definitions [2, 16], the following conceptual definition for a mega-crisis is posited: “A set of interacting crises that is severe in impact, complex in nature and global in fallout, with no distinct start and end points.”

6 Conclusion

The model offered in this paper provides an analytic framework for comparing similarities and differences among problems, messes, crises and mega-crisis. It can also be used to identify evolutionary stages of crisis development and targets for crisis management. That is, a well-managed problem does not have to evolve into a set of inter-related problems (a mess); a well-managed mess does not have to evolve into a set of interrelated messes (a crisis); and a well-managed crisis does not have to evolve into a set of interrelated crises (mega-crisis). A multivocal approach, which includes extensive stakeholder involvement, design-oriented planning, and symbolic communication, is a promising approach. Analytic generalization, which involves making projections about the possible transferability of findings from an evaluation based on research [29], is another. For crisis managers to confront new mega-crisis that await, further research in the form of case studies is needed to trace the origins of mega-crisis and to construct analytic generalizations.

References

1. J. Chomsri, P. Sherer, *International Journal of Behavioral Science*, **8**, 1 (2013)
2. F. Frandsen, W. Johansen, Hoboken, New Jersey: John Wiley & Sons Ltd (2010)
3. C. Chase-Dunn & P. Grimes, *Annu. Rev. Sociol.*, **21**, 1 (1995)
4. J. McLeod, Z. Pan, S. Dunwoody, L. Becker, Concept explication and theory construction, in S. Dunwoody, L. Becker, D. McLeod, & G. Kosicki (Eds.), *Creskill*, New Jersey, Hampton Press (2005)
5. R. L. Ackoff, *Interfaces*, **11**, 1 (1981)
6. D. R. Loseke, J. Best, New York: Aldine de Gruyter (2003)
7. I. Mitroff, C. Alpaslan, Palo Alto: Stanford University Press (2011)
8. I. Mitroff, M. C. Alpaslan, S. E. Green, *Int. Stud. Rev.*, **6**, 1 (2004)
9. M. Regester, London: Business Books (1989)
10. K. Fearn-Banks, New York: Taylor & Francis (2011)
11. M. K. Pinsodf, Lexington, Massachusetts: D. C. Heath and Company (1987)
12. O. Lerbinger, New York: Routledge (2012)
13. B. J. Wrigley, C. T. Salmon, H. S. Park, *Public Relat Rev*, **29**, 3 (2003)
14. A. L. Hughes, L. Palen, *International Journal of Emergency Management*, **6**, 3-4, (2009)
15. I. Helsloot, A. Boin, B. Jacobs, L. K. Comfort, Springfield, Illinois: Charles C Thomas Publisher (2012)
16. P. Lagadec, The Megacrisis unknown territory – In search of conceptual and strategic breakthroughs, in I. Helsloot, A. Boin, B. Jacobs, & L. K. Comfort (Eds.), 12-24, Springfield, Illinois: Charles C Thomas Publisher (2012)
17. M. J. Canel, K. Sanders, *The Handbook of Crisis Communication*, 449-466, Hoboken, New Jersey: John Wiley & Sons Ltd (2010)
18. P. A. Curtin, Negotiating global citizenship: Mattel’s 2007 recall crisis, in W. T. Coombs & S. J. Holladay, (Eds.), *The Handbook of Crisis Communication*, 449-466, Hoboken, New Jersey: John Wiley & Sons Ltd (2010)

19. P. t Hart, & A. Boin, Between crisis and normalcy: The long shadow of post-crisis politics, In U. Rosenthal, A. Boin, & L. Comfort (Eds.), , 28-46, Springfield, Illinois: Charles C. Thomas Publisher (2001)
20. A. Downs, *The Public Interest*, **28**, 38-50 (1972)
21. C. T. Salmon, H. S. Park, & B. J. Wrigley, *J Health Commun*, **8**, 130-143 (2003)
22. U. Rosenthal, A. Boin, & L. K. Comfort, *Managing crises: Threats, dilemmas, opportunities*, Springfield, Illinois: Charles C Thomas Publisher (2001)
23. R. K. Mitchell, B. R. Agle, & D. J. Wood, *Academy of Management Review*, **22**, 4 (1997)
24. M. C. Suchman, *Academy of Management Review*, **20**, 3 (1995)
25. C. M. Alpaslan, S. E. Green, & I. I. Mitroff, *JCCM*, **17**, 1(2009)
26. M. Spagnola, & B. H. Friese, *Infants & Young Children*, **20**, 4 (2007)
27. C. Bell, *Ritual theory, ritual practice*, United Kingdom: Oxford University Press (1992)
28. R. Collins, *Interaction ritual chains*, Princeton, New Jersey: Princeton University Press (2004)
29. R. K. Yin, *Case study research: Design and methods*, Thousand Oaks, California: Sage Publications (2009)