危機溝通與新媒介效果

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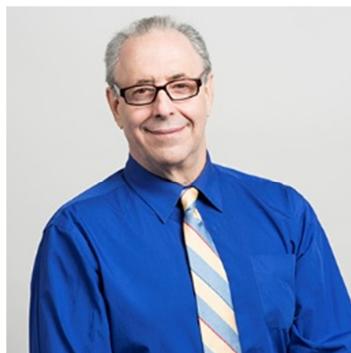
Dr. James E. Katz

　　「感謝有此機會向貴刊讀者們分享我的想法，我也非常榮幸能夠建立起東方與西方學術圈之間的橋樑。中華民國是最需要處理人為災害與自然災害的地方，那裡的人們比我更清楚颱風與地震帶來的災害影響，並且他們也意識到人為災害的發生來自於數個不同的潛在因素。這雖然體現出該地災害對當地居民的挑戰，不過也由於他們意識到潛在災害，因此能夠在基礎建設、組織與行為等層面做好周全的預防。

　　請允許我解釋一下自己的論點，我將會站在公共政策的立場來談論災害傳播與危機傳播的社會科學層面。關於政府與私人組織的風險傳播策略、危機反應政策，可以進行許多討論，然而我不會深入探究這個領域，我今天將聚焦在社會學與人際溝通的面向。」

Dr. James E. Katz 教授簡介

　　Katz 現任美國波士頓大學傳播學院教授，暨新成立的新媒體研究部和行動傳播研究中心主任。1975 年 Katz 獲得羅格斯大學（Rutgers University）社會學博士，起先在 Bell Communications Research（Bellcore）Telcordia Technologies 擔任社會科學研究部門的高級科學家，曾在德州奧斯汀大學（University of Texas at Austin）任教。

　　Katz 教授原為美國新澤西州羅格斯大學傳播系教授兼系主任，曾獲該大學 Board of Governors Professor of Communication 的最高榮銜。2012 年轉任波士頓大學（Boston University）。他已出版逾 15 本書，涉及科學政策、行動裝置和社群媒體使用。多本書被譯成義大利、西班牙、和日文。其中一本 *Handbook of Mobile Communication Studies*（2008），一直是美國亞馬遜排行榜暢銷書。2013 年，Katz 和 Michael Barris、Anshul Jain 合作出版 *Social Media President: Barack Obama and the Politics of Digital Engagement* 一書，以 2009 年歐巴馬擔任總統以來，政府及候選人使用社群媒體及公眾參與為研究課題，引起學術界和社會各界重視歐巴馬政府戰略性使用社群媒體的優劣、局限和得失等相關討論。Katz 博士獲得榮譽包括 2011 年美國社會學協會奧格本職業成就獎、2009 年 Fulbright Distinguished Chair in Twentieth Century Communications History 獎。他也得到 Università Cattolica del Sacro Cuore di Milano 的 Medalion per il Lectio Magistralis，是歐洲學術最受尊敬的榮譽獎項。

賴至慧教授簡介

　　賴至慧現任國立交通大學傳播與科技學系助理教授，2012 年自美國羅格斯大學取得博士學位，在 2016 年八月返回臺灣後之前，先後於美國艾克朗大學（University of Akron）與新加坡南洋理工大學（Nanyang Technological University）擔任助理教授。研究領域結合組織傳播、災難傳播與動員以及社會網絡分析，曾經獲得包括美國國家科學基金會（National Science Foundation）以及美國國際開發總署（USAID）等機構的研究經費補助。論文發表於眾多傳播領域的頂尖期刊，如：*Journal of Communication*、*Communication Research*、*Journal of Computer-Mediated Communication* 以及其他與災難動員相關的跨領域期刊，如 *Disasters*、*Journal of Contingencies and Crisis Management*。於 2018 獲頒臺灣科技部傑出研究獎的殊榮。

賴至慧：感謝 Katz 教授接受訪談，讓我們進入第一個問題。

Katz：沒問題。

賴至慧：您認為在這個以人為災害與自然災害為特徵的當代，進行社會科學研究有哪些機會與挑戰？

Katz：對於社會科學研究來說，現在可能是最令人興奮的時代之一，因為很多資料皆能夠近用，再加上人與人之間各種快速的溝通形式。過去人們當然也遭遇各種危機與問題，然而關於危機本身的資訊與人們如何回應危機的方式，卻難以蒐集以做為社會科學的

研究主題。因此包括一般的，甚至特定的事件，我們在理解人們如何感知危機時，是站在相當薄弱的基礎之上。

反觀今日，在這個主題上已經有精彩的研究，我認為就像凱‧艾瑞克森（Kai Erikson）的《在自身路徑中的所有事物》（*Everything in Its Path*）或凱倫‧克魯洛（Karen Cerulo）的著作。凱倫‧克魯洛是羅格斯大學的教授，也是我以前的同事。他們已經匯集許多重要的洞見：首先，人們會如何否認危機，即使它迫在眉睫。繼之，危機發生當下，人們又如何回應。而在危機事件後，社群出現了哪些破壞與變形。儘管上述研究都很有價值，但我們目前已經有新工具來蒐集不僅是個人而且是團體與社群的層次、有關態度以及行為方面的資料，藉此能夠透過正式以及非正式的方式產生洞見、驗證假設，這是前所未見的。同樣的，我們現在已經具備在比較傳統靜態的資料上，加註位置定位以及互動資料的能力。

目前所有用來進行溝通的技術都發生了劇烈轉變。我想起幾年前在東南亞地區發生的「聖誕節海嘯」（Christmas Tsunami），以及周圍孤立的社群是如何對海嘯的來臨渾然不知。但是現在，這些社群都擁有新的溝通形式，或者多數人能夠被通知風險來臨，而得以攜帶賴以維生的財物撤離。馬克‧奧客許斯（Mark Aakhus）與我在 1999 年初期探討的「永恆聯繫」（perpetual contact）概念，它當然是一種華麗的修辭，因為我們並不預期人們無時無刻聯繫；但它其實隱喻著一種人與人之間能夠無時無刻保持潛在溝通、並且對外進行聯繫的驅動力，特別是與他們情感上有緊密關係的人。

Katz：就像馬克・奧客許斯和我試圖論證為什麼有些人喜愛保持聯繫？相關因素很多，其中之一是他們認為有必要知曉與他們家人或其他與他們情感上有緊密關係的人，所發生的危機與突發事件。

因此，馬克・奧客許斯和我認為，人們渴望至少保有聯繫的可能性。這當中牽涉許多因素，其中之一是來自我們的社會性本質。然而，另一個因素是人們想要得知與個人相關的重要新聞。更重要的是，人們會想聽到關於自身或與他們家人相關的危機，因此，危機傳播是人們希望保持聯繫的重要驅動力，這也是手機在一開始普及的主要驅動因素。人們也依此自圓其說，說服自己花費巨額購買手機。當然現在手機價格與使用費都非常低廉，儘管如此，人們確實喜愛手機的緊急狀況預警功能。

關於出現緊急狀況與危機時，如何進行大規模溝通（communication），一直是過去幾百年來的重大歷史問題。檢視西歐，當發生緊急狀況或火災而必須提醒人們時，城鎮廣場上的教堂鐘聲會不斷地響起，這已是當時他們透過既有技術所能做到最好的傳播方式。然而幾百年後，則普遍透過手機警報突發事件。基於此，負責民眾安全與福祉的政府機關（civil authorities），亦關注如何在發生危機的緊急狀況下通知民眾，包括火災、地震、恐攻等情形。

另一方面，人們也想得知家中發生的緊急狀況，即家人是否生病或遭遇意外。事實上，如果我們與老人家或退休人士談話，會發現他們花費許多時間擔憂不必要的事情，許多例子是關於家庭成員的健康與福祉。因此，不論在社會或個人層次，人們都非常關注於緊急狀況的通知，眾多技術研發也在滿足這種需求。若

考量到商業方面，建構這些緊急聯繫系統可能十分昂貴，因此產生誰來支付相關花費的問題。另一方面，某些系統是非常便宜的，並受到一定程度的歡迎。然而，這最終還是會涉及經濟層面的問題，亦即到底該進行多少投資，針對出現頻率低卻高成本的事件進行準備與防護？這當然不是新出現的問題，反倒是長期存在的問題，但在當前我們擁有大量的技術機緣（affordances）下更顯得重要。

賴至慧：感謝 Katz 教授非常有洞見的回覆。憑藉您在研究新興技術對社會影響的專業知識經驗，相較於過去十年，您如何思考（傳播）技術在研究風險與危機溝通上所扮演的角色？

Katz：危機溝通研究的確在過往十年出現了戲劇性地轉變，甚至在更早之前，我想到的是 1950 與 1960 年代，這個時間點當然比十年前更久遠，當時更多的關注在民防。例如臺灣的暴風雨與海嘯預警，其影響範圍當然也擴及中國沿海地區，因此也包括中華人民共和國。但是，這些研究都是建立在非常粗糙的（防災）策略上，甚至在十年之前，對於這些問題甚至都不太予以關注。然而，隨著 911 這類恐怖攻擊事件的出現以及美國紐奧良市的卡崔娜颶風（Hurricane Katrina）等危機，大量經費挹注傳播學者研究人們如何感知風險、如何評估風險，以及試圖瞭解人們對風險採取行動的決策過程。在理解人們如何傾向漠視風險的議題上，目前已經有長足的進展，特別是行為經濟學的概念，對於人們如何進行認知處理資訊的過程提供了真知灼見。其中一項重要發現是人們的「認知」與他們的「行為」之間呈現斷裂。按歷史的邏輯來說，學者預設透過提供資訊與行動指導，人們會以「理性」

的方式行動，也就是人們能夠適當地採納資訊並進行評估。

　　但透過研究與各式各樣資料搜集，我們了解到人們不會以「理性」的方式來行動。人們傾向於漠視風險警告，特別是那些他們已經聽過，卻沒有進展的預報警告。因此針對大眾社會心理的控管上，如何使人們在風險尚未來臨的時候保持警戒與危機意識，並且採取預防措施，這是一個重大挑戰。對所有緊急管理系統的基本問題與兩難——若災害真的發生，人們會指責官方應變措施不足；反之，若有太多錯誤預報，則使人們疲於災害準備。一個貼切的例子是最近發生在夏威夷的恐慌事件，民眾被告知核子彈道飛彈即將來襲，然而許多人不理會這個看似不合理的資訊。換言之，官方花了數百萬美元讓民眾對核武攻擊預先採取行動，但是當宣布消息時，民眾卻沒有採取任何的行動來保護自己，另一方面，採取行動的民眾則感覺自己非常愚蠢。在之後，你可以輕易地想像他們將不會願意採取行動。所以你發現諷刺地所有系統均被設計來達成一個無法實現的目標，這讓危機管理者在尋求暸解人們對危機的反應時躊躇不前。

　　在此，我要增加一個新段落來評論手機簡訊的普及現象。人們現在已經很熟悉簡訊，因此人們不會再對它感到震驚，換言之，現在來自官方權威的簡訊不如過往在人們心理所占有的重要性。

賴至慧：感謝您。請談談您剛才提及的主題：當災難實際沒有發生時，人們傾向否定錯誤的預警。您期待哪些方面有更多的研究，以協助人們確實地做好準備或增加警覺性？

Katz：在未來的研究上，我們面前有相當多的重要問題亟待解決，這是

個好消息，壞消息是我們已經解決了容易的問題，卻留下費解的難題。其中一道最困難的問題是：如何提供正確的訊息（the right level of information）給民眾，以使他們能夠思考訊息、採取適當的行動。由於很少每個意外都如預期的方式發生，所以一般雖然都有大致的應變規劃，但意外的發生會導致原先的規劃需要修正、甚至是逆轉。這種情況特別發生在人為災難的時候。通常相關政府部門會防賭顯而易見的攻擊路線，因此欲對社會大眾發動災難攻擊的團體，則必須選擇「軟目標」（soft targets) 或其他不被政府部門預期的方式發動攻擊。

如同我前面說的，最困難的問題之一是如何提供人們正確的訊息。為什麼這是一個困難的問題？理由之一是政府部門時常不確定該採取哪些正確的行動。我們假設官方知道正在發生的狀況、以及應該採取什麼步驟，然而他們可能就如同一般民眾，經常處於資訊真空的狀態。儘管如此，官方仍必須硬擠出話，聊勝於無。在這個時候，傳達的消息甚至可以是簡單如：「我們不知道發生了什麼事」。但這對官方來說難以直言，因為他們身處權威的位置，即使「不知道發生了什麼事」的發言，也會引起民眾的焦慮，但選擇保持沉默僅僅是一種短期的解決方案，長遠而言會造成更糟糕的後果。

其次，如果我們所說的人們可能會反應過度或反應不足。以反應過度而言，這可能導致人潮蜂擁而上的問題，例如在自然災害或化學災害的相關例子中，疏散路線可能被人群堵住，導致任何人都無法撤離，最後造成疏散路線的失靈。另一方面針對反應不足，試圖去激起人們情緒會是一種可實踐、簡單的解決方案，不過為了鼓動人群，便會造成被要求如此做的人出現欺騙行為，

因為這導致他們個人以及對他們家人的風險增加。

第三，資訊在人群中並非均勻地流動，因此，需要有多元的溝通管道。然而，這些訊息如何透過「塊狀的社會網絡」（lumpy social networks）來進行最理想的傳播？

第四，何種訊息具有行動合理性（actionable）？何種訊息會激起正確的行動？這是個雙重複雜的問題，因為人們會透過各種方式來回應。人們面對危機會有不同態度；有些人是宿命論者，有些人是過度反應的憂鬱症類型，所以一體通用並非最佳的方法。因此若能力所及，基於資料來進行訊息客制化是非常有幫助的。再者，即是這種解決方式也存在公平性的問題，爭論特定群體會比其他群體獲得「更佳」的訊息，某種意義上該問題甚至比提供人們正確的訊息還要難解。

雖然我沒有窮盡所有的研究挑戰，但希望這份訪談稿能闡明一些重要問題。前述問題都可以一一研究，以提供決策者、緊急應變人員與不同的群體來解決防災預警所遇到的困難。

最後，攸關教育層面，許多人強調教導民眾如何面對危機，這確實是重要而積極的一步。然而很多時候人們相信光是教育就足夠，部分因素是因為很多人不曾在教育上做努力，也不關注教育。只要想想你上次收到複雜設備的說明書，我們之中有多少人會閱讀關於電擊、水災損害、蓄電、過熱等問題的警告？當我們使用裝置時，就會存在風險，但許多人甚至怕麻煩而不去閱讀他們眼前的印刷品，即使這樣做可能對他們產生重大後果。當然，我提出這一點不是為了批評其他人或我自己，因為我通常也不會閱讀這些說明，但我想藉此來說明教育的限制。

賴至慧：感謝！最後一個問題是：憑藉您在跨文化比較的專業與經驗，您對於處理風險傳播與危機傳播中的文化議題有何見解？就如同災難頻傳的亞洲、美國或歐洲，您如何看待透過研究來處理文化議題的重要性？

Katz：我認為文化是一個重要的層面，但是在文化中的社會位置也很重要。第一種狀況，在宿命論的文化脈絡下，當不好的事情預期會發生時，人們會認為這是對神明的褻瀆，因此不要進行任何干預。相反的，另一些文化則是非常積極主動的，並且認為應該預防所有的壞事。在美國，我們開玩笑說人們抱怨天氣，但沒有人會為天氣做任何努力，這顯示在積極的美國文化中，我們甚至期待能夠減緩一般天氣的影響。因此，這凸顯了文化的兩極性。在歐洲文化強調社會安全，這是每個人所享有而且也需要的，每個人從出生到死亡都備受保護。這是一種零風險的社會，強調災難防治，因此人們不應該發生任何可能傷害他們的事情，政府則應該與企業及其他機構合作以保護民眾免於任何可能導致傷害的機會。這樣的態度當然不是零成本：個人的自由需要被限制才能達到免於傷害的目標，從整個社會的層次如文化機構的角度思考，也會消磨掉個人以及集體的想法以及創意。

我們在美國加州可以看到一點類似的文化，在該州必須針對所有物品潛在的致癌風險提出警告，不論這種風險有多麼輕微。變成了每個物品都放上了防癌風險警告！我們現在到達了這個地步：會對健康帶來正面影響、但同時也有極輕甚至逐漸消去致癌風險的咖啡，已經被標註為具有致癌風險。在某些地方，父母甚至可能因為在車中吸菸，同時有小孩在場而遭逮捕。

　　然而，日本等國家強調公共安全，但是並沒有要求民眾騎自行車時要戴安全帽。要求騎單車戴安全帽以降低風險，是一個簡單的步驟，而似乎可以同時達到提升公民健康與安全，並避免社會風險與危害，在宣導公共宣導上並不會太困難。由此可見，各地似乎存在了很多文化差異性。

　　但是正如我開頭所說，這牽涉了社會位置的問題。許多人認為自己對周遭環境擔負了安全與福祉的責任，所以他們希望看見政府採取措施，會要求政府採取行動。與此相反，有些人則傾向自由與較少干預，因此他們希望看到的是小政府。舉例來說，他們希望較少的預警措施要求，這些人代表了光譜的另一端。因此，我再次表達對文化差異性的關注，對於特定的危害與特定的社會，政府必須要有評估技術以找到最佳的溝通策略。雖然這是一種概括式陳述，必須根據個別的情形進行調整。透過這些研究，我預期在未來十年內會有長足的進展，包括對科技影響力的理解、警示人們注意風險、針對特定風險提供適當的行動步驟。還有最根本與最重要的是調整訊息，使人們可以感知訊息，並且根據訊息採取最佳的行動措施。

賴至慧：非常感謝 Katz 教授具有洞見、啟發與中肯的評論。我們希望讀者能從您的評論與對於未來的預測中受益。再次感謝您。

Katz：別客氣，我很高興有機會針對這個主題分享任何想法與淺見給你們的讀者，或許他們可從我的話語中獲得一絲絲靈感。很樂意與你還有你們的讀者分享。

Academic Dialogue with Professor James E. Katz

"Thank you for the opportunity to share my thinking with your readers. It is a great honor to be able to build a bridge between the academic communities of the East and West. And there is no better place where it is necessary to address questions of man-made and natural disasters than the Republic of China. The people here know far better than I the dangers from typhoons and earthquakes. The people here are also aware of the possibility of man-made disaster befalling Taiwan from several different potential sources. This represent a challenge to the people, but also the fact that there is awareness of these potential disasters allows good preparation at the infrastructural, organizational and behavioral levels."

"Permit me to also frame my remarks. I will be addressing the social scientific sides of disaster communication and crisis communication. I will be doing this from a public policy viewpoint. There is much that could be said about private organizations and governments in terms of their risk communication strategies and crisis response policies. However, I will not be delving into this area in my comments. Rather, it is the sociological and interpersonal dimensions that are the focus of my concerns here with you today."

JK: James E. Katz
CL: Chih-Hui Lai

CL: Thank you once again Professor Katz for letting me interview you. Thank you. So, let's begin the first question.

JK: OK.

CL: What do you see the opportunities and challenges are for conducting social scientific research in this current era that is characterized by all types of man-made and natural disasters?

JK: This is perhaps one of the most exciting periods in terms of social science research because of all the data that is now available, plus all the rapid communication forms that there are among people. So, in the past, people suffered crises, problems. But the information about the crisis itself, and people's reaction to it was very difficult to collect as a social science research topic. Therefore, we have a very thin base of understanding of how people perceive risk, not only in general but in response to particular incidents. Now there has been wonderful research on this topic done in the past, and I am thinking of Kai Erikson's "*Everything in Its Path*", or Karen Cerulo, her work, she's a professor at Rutgers, a former colleague. They have gathered great insight into how people, first of all, deny the risk even when the incident is impending and second how they react in the moment to the crisis and third, the destruction and distortion that occurs to the community after the incident. As valuable as all of this is, we now have new tools to collect attitudinal and behavioral data, and not only on the individual level but at the group and community levels as well. This permits the generation of insights and testing of hypotheses, both formally and informally, as never before. And of equal importance is the ability to add geo-locational and interactional data on top of more static forms of data that have been traditionally available.

JK: So now with all the technologies available for communication things have changed dramatically, I think of the so-called Christmas Tsunami happened throughout the South East Asian region some years ago, and

how isolated communities had no idea that a huge tsunami was coming their way, and nowadays with new forms of communication all those communities or at least most of them could have been notified of the risk and they could have evacuated with the great life savings. So, the idea of perpetual contact that Mark Aakhus and I explored in the beginning in 1999 is a rhetorical flourish in that we don't expect people to have perpetual contact all the time, but rather it was a metaphor for the drive for people to be able to have potential communication all the time and to be able to reach out to others, especially those who are emotionally tied to them.

JK: As Mark Aakhus and I tried to argue, there are people who love being in touch and why is that? One of the reasons there are many reasons, but one of the reasons is that they have to know about risk and emergencies either with their family or others to whom they have emotional bonds.

So, Mark Aakhus and I argued that people have a desire to at least be in touch potentially. There are many reasons for that including our social nature, but another reason is, is people want to know about news of important personal nature and even more importantly hear about risks to themselves or their family so risk communication is an important driver of people wanting to be potentially in touch. This was a major driving factor behind the flourishing of the mobile phone in the first place. People used it to justify the big expense that they had to face of owning a mobile phone, nowadays the cost of mobile phones themselves and for the use of mobile phones is very low. Nonetheless, people do love the emergency alerting nature. The problem of mass communication of emergencies and risk is one that has been of great historical importance for many millennia. Looking at Western Europe,

the Church bells in the town squares would be rung repeatedly when there was an emergency or to call out people for a fire. This was the best they could do using the available technology, for a while there was a system set up and indeed is now quite popular where individual phones will be rung in case of an emergency. So, civil authorities who have responsibility for the safety and well-being of a population are concerned about being able to notify people about emergencies of crisis and sorts, fires, earthquakes, terror attacks, are among them.

On the other hand, people also want to know about family emergencies, people want to know if a member of their family is ill or has been in an accident. And in fact, if you talk to people elderly people or retired people one of the things you find is they spend a lot of time worrying needlessly in many cases about the health and well-being of their family. So, both at the societal level and at the individual level there is great importance concerning emergency notification and there's been a lot of technological developments aimed at addressing this need. Now speaking as well at the commercial level, these systems can be expensive and there's the question of who pays for them? Yet, there are certain systems that are quite cheap and those are also of a degree of popularity. But it ultimately comes down to a question of economics, how much investment should there be in preparation and protection against low-frequency but high-cost events? And this is not a new problem but one that is a perennial problem, highlighted nowadays by the large number of technological affordances that we have.

CL: Thank you Prof. Katz for the very insightful responses. With your expertise in the social implications of emerging technologies, what do you think of the role of technologies is in studying risk and crisis communication, compared to the past, say, a decade ago?

JK: Certainly, there's been dramatic changes in the study of crisis communication over the past decade and older, as I think about the 1950s and 1960s, which is more than a decade ago, a lot of concern was organized around civil defense and in the case of Taiwan, storm and tsunami warnings, and that also effects places like the coast of the China Sea, including the PRC. However, these were based on very blunt strategies and perhaps even a decade ago there was not much sophisticated attention drawn to these issues. However, with the rise of terror incidents like 9/11, like the crisis of Hurricane Katrina in New Orleans in the United States, there has been a lot of funding going to communication scholars to understand how people perceive risk, how they evaluate those risks and how they decide to take action on those risks. There's been a great deal of advancement in understanding the way people tend to discount risks, the idea of behavioral economics has shed a great deal of light on the cognitive processing of information. One of the important findings is the disconnect between what people know and how they behave. Historically and logically, people assume that by giving… scholars assume by giving information and directions on how to act on that information, they would behave in "rational" way, that they would be able to take that information and assess it properly.

What we have learned through research and through various forms of data collection is that people don't act that way, they tend to discount risk alarms especially ones they've heard about an alarm that isn't carried forward. So, the problem of keeping people vigilant and aware of risks and having them take steps when no risks occur is a major challenge in terms of managing public social psychology. The fact that people will accuse authorities of not doing enough if something happens but then wearing out the people by too many false alarms is a

fundamental problem for all emergency management systems. The recent scare in Hawaii where the public was notified of an incoming nuclear ballistic missile, nuclear tipped ballistic missile, is a great case in point. A lot of people dismissed that information as not being plausible. So, in other words, millions of dollars have been spent to prepare the public to deal with nuclear attack and when the announcement came, the people took no action to protect themselves, and moreover the people who did take action to protect themselves felt very foolish. And in the future, you can readily imagine that they won't be unwilling to take action. So here you find the whole system ironically designed for one purpose that doesn't achieve that purpose, and this should really give a lot of pause to crisis managers as they seek to understand how people react to crises.

And I will add a new paragraph here of my commentary which is that, this was all spread by text message, and people are so now familiar with text message that the shock value of them has been worn off. In other words, getting a text message from a senior authority no longer carries the psychological weight that it would have once had.

CL: **Thank you. But speaking of those topics that you mentioned: people tend to dismiss the false alarm when the risk is not actually happening. Are there particular topics or domains that you expect to see more research on in terms of helping people to really prepare themselves or increasing their awareness?**

JK: In terms of the question of future research, there are quite a few important questions ahead of us, that's the good news. The bad news is that the easy problems have already been solved, that leaves us with the hard problems. One of the hardest problems is how to give the right

level of information to members of the public so that they can also be primed to take appropriate action. It's seldom the case that every accident happens in the way that was anticipated. Although there may be general plans, the specifics can lead to an unexpected need to modify, and even reverse, the plan. This is particularly the case with man-made disasters. The obvious lines of attack are often blocked by the authorities, so the groups that wish to inflict disaster on the public have to find "soft targets" or other avenues that were not anticipated by the authorities.

Hence, one of the most difficult problems is giving people the right level of information. Why is this a difficult problem? One is that often the authorities are not sure of the right action that needs to be taken. We assume that somehow authorities know what is going on and what steps should be taken, but they can often be in the same information vacuum that an ordinary person is in. Nonetheless they need to say something, because nothing is worse than something. But the something needs to be even as simple as: we don't know what is happening. It's very hard for authorities to say that because they are, as their title states, in a position of authority. But even that message of not knowing things can raise the anxiety of people, and yet silence is a short-term solution which leads to long-term worse consequences.

Secondly, people may overreact or underreact as we've said. So, in terms of overreaction, this can cause cascading problems for the situation, for example, the evacuation routes can become over choked and nobody can get out, so the evacuation routes fail, in case of some sort of natural disaster or chemical disaster. Yet, trying to ask people to go in waves which would be a practical and easy solution, is one that leads to cheating behavior on the part of anyone who's been asked that

they cooperate in a way that increases the risk to themselves and their loved ones.

Third of all, information does not flow evenly across populations. So, there needs to be multiple channels available, but how can those messages best be propagated through what might be called lumpy social networks?

Fourth of all, what kind of messages are actionable? What sort of messages will provoke the right reaction? This is a doubly complicated problem because people react in different ways. People have different attitudes towards crises; there are fatalists, there are hypochondriacal types of over reactors and so one-size-meets-all-needs is not a good way to go. So, the possibility of customizing messages based on information is quite useful, if there is that ability to do so. On the other hand, even with this solution there's a question of equitable outcomes, so it could be argued that certain groups have "better" messages than others, and that this in some sense is a worse problem than even giving people appropriate messages.

Although I have not exhausted all the different research challenges, I hope this list illustrates the important problems, in each of those, research can be done to illuminate the problem for decision makers and for emergency alert responders, as well as for different groups of the public.

Finally, in this regard is the notion of education. There's been a lot of emphasis on educating the public to risks, and this is certainly an important and positive step. Too often, however, is the belief that education alone is sufficient. Partly because a lot of people dismiss educational efforts and pay no attention to them. Just think about the last time you received an instruction booklet on a complicated device,

how many of us read through the warnings about electrical shock, about water damage, about storage, about overheating and so forth? Here, we're about to use this device, here are the risks and many people don't even take the trouble to read the print in front of their eyes when it could have important consequences to them. So, I bring this up not to criticize other people or myself since I don't read those things generally, but rather to illustrate the problem of the limits of education.

CL: **Thank you! For the final question, based on your professional and personal experiences in terms of cross-cultural comparisons, what's your take on addressing the cultural issues in risk and crisis communication, like in disaster-prone Asia, US., or vs. Europe. What do you see the importance of addressing cultural issues in the research?**

JK: I think culture is important at one level, but also social position is important within culture. So, in terms of the first, there are fatalistic cultures where bad things are expected to happen and it's almost seen as sacrilegious, as a bad thing to intervene with the fatalistic outcome. And there are other cultures that are highly proactive and they view every bad thing as something that should be prevented, a failure of the system as it were. In the United States, we make a little joke about, people complain about the weather but nobody does anything about it, indicating that we even expect us in our proactive US culture to be able to mitigate the effects of ordinary weather. These kinds of attitude highlight cultural polarities. In Europe, it's very much emphasized culturally, that what is deserved and needed is a safe society, everyone is protected from cradle-to-grave. This of course is a risk averse society, one that emphasizes disaster preparedness. People should have nothing

happening that could possibly hurt them. The government, working with industry and other institutions should protect everybody from every possible harm. Such an attitude is not cost-free. Individual freedom needs to be limited to attain these goals and speaking on a society-wide basis such cultural organization can blunt individual and collective initiative and innovation.

In the United States, we see this a little bit in California, where there has to be warnings of any potential cancer risk no matter how minor, on every item. This includes cancer warnings on everyday items! So, we've now reached the stage where coffee, which has healthful effects, and also has a minor almost disappearing risk of cancer, has to be labeled as a cancer risk. In some jurisdictions, parents can be arrested if they smoke a cigarette in their car while a child is present.

By contrast, there are countries such as Japan which emphasizes public safety and yet does not require citizens to wear helmets when they ride a bike. So, this would seem to be requiring the risk mitigation of wearing a helmet, would seem to be an easy step towards public health and safety and avoiding risk and danger in society. Yet there does not appear to be much in the way of public communication campaign to mitigate the risk of helmet-less bike riding. In sum, there does seem to be a lot of cultural variation.

But as I said at the outset there's also the matter of social position, and many people view themselves as having the responsibility for the safety and well-being of those around them, and these people want to see action taken and will press for governmental steps. Opposing this are those who want to see freedom and lack of intervention, they want to see a small government, for example, they want to see a lack of requirements about warnings and these people then represent the other

end of the continuum. So, once again my expression of concerns about cultural variation is that the government needs to have assessment techniques to find what is the best strategy of communication for the particular danger that they are contemplating, and for the ambient society that they are addressing. Although this is rather a generalized statement it has to be tailored to the individual specifics. Through these forms of research, I expect that in ten years we'll be much further down the road in terms of understanding the effects of technology, in terms of alerting people to risks and giving them the appropriate steps to take in light of those risks and fundamentally and most importantly, adjusting those messages in a way that people can perceive and act in the best way in light of those messages.

CL: Thank you very much Professor Katz for your insightful, inspirational and to the point commentary. We hope that readers will benefit from your comments and your predictions for the future. Thank you once again.

JK: You're welcome, and I appreciate the opportunity to share whatever humble insights I might have on this topic for your readers and perhaps they can take some small inspiration from my words. It has been my pleasure to engage with you and them.

Dialogue: Crisis Communication and New Media Effects

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ABSTRACT

Addressing the perspective of public policy, this scholarly dialogue discusses the implications of disaster and crisis communication for contemporary social science research. In particular, the remarks touch upon the opportunities and challenges for conducting research on disaster and crisis communication as a result of the advancement of information and communication technologies. They also cover the cultural aspects inherent in understanding how individuals, organizations, and societies adapt and respond to emergencies.

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