

The authors' views are their own and do not represent the official position of the Institute of Defence and Strategic Studies of the S. Rajaratnam School of International Studies, NTU. These commentaries may be reproduced with prior permission from RSIS and due recognition to the authors and RSIS. Please email to Editor IDSS Paper at RSISPublications@ntu.edu.sg.

No. 055/2025 dated 01 May 2025

Disasters and Disinformation: AI and the Myanmar 7.7 Magnitude Earthquake

Keith Paolo C. Landicho and Karryl Kim Sagun Trajano

A devastating 7.7 magnitude earthquake struck Myanmar on 28 March 2025, its tremors reaching as far as Bangkok, Thailand. In addition to the dire impacts, the victims were not spared from disinformation. Amid the chaos and the critical need for information, misleading AI-generated content spread widely, highlighting the dangerous intersection of technology and humanitarian crises.



AI-generated disinformation complicates already challenging disaster response operations.
Image courtesy of *Wikimedia Commons*.

The earthquake that struck Myanmar on 28 March 2025 exposed the nation to compounding harm. Over one million people were affected: thousands were dead or

injured and close to 70,000 individuals internally displaced. Tremors were felt as far as Bangkok, Thailand, approximately 1,000 km away from the epicentre in Sagaing, highlighting the severity and scale of the disaster. The devastation was compounded not only by Myanmar's existing socio-economic and political challenges but also the ongoing armed conflict: according to the UN Human Rights Office, armed operations and airstrikes continued in quake-hit areas. Exacerbating these challenges were various bureaucratic hurdles that limited aid delivery, as in previous disasters like [Cyclone Nargis \(2008\)](#) and [Cyclone Mocha \(2023\)](#).

Amid the chaos, telecommunications shutdowns by the military hindered access to information. This caused a soaring demand for information updates in the aftermath of the earthquake, creating a conducive environment for the spread of disinformation.

The spread of disinformation was amplified by emergent technologies such as artificial intelligence (AI). Motivated by the desire to generate advertising revenue, profiteers [capitalised on the crisis](#) to farm engagement in social media through clickbait content. For example, one of the videos that went viral carried [fabricated depictions of destruction and temples located incorrectly in Mandalay](#), misrepresenting both the geographic scope and severity of the disaster. The opportunistic timing highlights the intersection of crisis and technology, where misuse of AI may not only erode trust in information and institutions but can also potentially exacerbate the challenges of humanitarian assistance and disaster relief (HADR).

AI and Disinformation in Humanitarian Crises

AI has rapidly reshaped the global information landscape as a dual-use technology, bringing both good and harm. Tools like generative adversarial networks (GANs) can now be used for [predicting floods](#) and for [remote sensing during disasters](#). AI can also create [hyper-realistic simulations of natural calamities](#) such as floods, fire and smog. While useful for climate modelling, AI is also being misused to produce [deepfake disaster videos](#) featuring fabricated destruction. Such content may mislead any average consumer of online content, especially during real crises.

In humanitarian emergencies, time is critical, and accurate and timely information is scarce. Disinformation can sow confusion and erode trust. It can also potentially delay life-saving action, reduce compliance with emergency and safety instructions, and fragment coordination among humanitarian actors. The growing severity of this challenge is reflected in the 2025 Global Risks Report of the World Economic Forum, which identifies [misinformation and disinformation as among the top global risks](#).

The Myanmar case illustrates the [impact of disinformation on HADR](#). With social media as the main conduit for its spread, AI adds a layer of complexity by enabling faster and more widespread distribution of disinformation. This is dangerous as every second of the "critical window" of earthquake search and rescue operations matters. In countries like Myanmar, where the information landscape is already fragile, characterised by [limited access to disaster knowledge and early warning systems and where conflict and internal displacement create additional vulnerabilities](#), disinformation affects both victims and responders alike.

Even in non-conflict settings, disinformation has presented challenges, from [COVID-19 vaccine hesitancy in Southeast Asia](#) and manipulated images of the 2023 Türkiye-Syria earthquake to [deceptive photos during Hurricane Helene in the United States in 2024](#). These instances highlight the urgent need for information integrity safeguards in crisis settings where the consequences of disinformation are amplified.

Rethinking Crisis Response in the Age of AI

The Myanmar case is a tragic example. The convergence of disasters, conflict and AI-driven disinformation is a global threat. As disasters grow more frequent and severe and as AI becomes more accessible, the humanitarian sector, with the support of the technology sector, should consider information integrity as a vital aspect of crisis response.

While binding AI regulations are yet to be implemented by ASEAN, national-level initiatives may offer more immediate solutions. Ukraine offers a [model](#) to combat disinformation during a crisis, using [AI tools](#) like CommSecure and CIB Guard for early detection of harmful narratives and coordinated disinformation campaigns. It also established dedicated institutions like the [Center for Combating Disinformation](#) and the [Centre for Strategic Communication](#). [PS1] These bodies are responsible for coordinating efforts against disinformation and formulating swift response strategies.

During disasters, however, affected countries may struggle to counter disinformation while dealing with a crisis on the ground, making space for regional support. Ukraine leaned on partnerships within Europe, including the EU Stratcom Task Force's [EUvsDisinfo](#) project, the [European Centre of Excellence for Countering Hybrid Threats](#), and NATO's [Strategic Communications Centre of Excellence](#). Similar national measures and regional collaboration must be established in Southeast Asia sooner rather than later. The situation is particularly urgent here due to frequent and often catastrophic disasters.

That said, it is important to realise that crises in Eastern Europe differ in many ways from those in Southeast Asia. While Ukraine's use of AI and international partnerships during wartime offers valuable insights, the dynamics of disasters present a distinct set of challenges. The example of Ukraine serves as a starting point, but further research leading to contextual solutions is still needed.

Ways Forward

ASEAN's existing disaster management [mechanisms](#) and [operations](#) emphasise "accurate information shared in a timely manner" but lack protocols to counter disinformation during crises. The convergence of disasters, conflict and technological misuse exposes the vulnerability of crisis-hit regions to compounded harm. In Myanmar's case, the physical devastation from the earthquake was compounded by systemic failures in the information landscape, as well as the exploitation of the crisis by malicious actors. The Myanmar case highlights the urgent need for disaster mechanisms to include safeguards against digital threats like disinformation. Bridging this gap would help alleviate the burden of mitigating disinformation for national agencies and integrate it into the regional collective response. This would not only

mitigate the risks from emerging digital threats but also support the ASEAN vision of One ASEAN, One Response.

Ultimately, it is important to recognise that AI remains a dual-use technology. While it may be exploited for disinformation during crises, robust and purposeful national and regional initiatives can unlock the technology's potential for positive uses. Important as they are, safeguards on responsible AI use will not completely deter malicious actors. In addition to governance frameworks, capacity building, real-time information sharing among stakeholders, and regional and international collaboration could enhance collective resilience against AI-enabled harms during crises and beyond.

Keith Paolo C. Landicho is an Associate Research Fellow of the Humanitarian Assistance and Disaster Relief (HADR) Programme, Institute of Defence and Strategic Studies (IDSS), S. Rajaratnam School of International Studies (RSIS). **Dr Karryl Kim Sagun Trajano** is a Research Fellow with the Future Issues and Technology (FIT) research cluster at RSIS.