



APPROACHING VISUAL INVESTIGATIONS IN THE AGE OF AI MANIPULATION

Date: November 19, 2025

Disclaimer: This briefing note contains the encapsulation of views presented by the speaker and does not exclusively represent the views of the Canadian Association for Security and Intelligence Studies.

KEY EVENTS

On November 19, 2025, Dr. Giancarlo Fiorella presented, *Visual Investigations in the Age of AI Manipulation*, at the 2025 West Coast Security Conference. The presentation was followed by a question-and-answer period with audience members and CASIS Vancouver executives. The session examined the evolution of visual investigation methodologies and the emerging challenges posed by increasingly sophisticated AI-generated imagery and video.

NATURE OF DISCUSSION

Dr. Fiorella outlined the development of visual investigation as a mainstream journalistic and accountability tool, particularly following high-profile open-source investigations. He then assessed how rapid advancements in generative AI are reshaping the verification environment. While core investigative methodologies remain intact, the proliferation of synthetic media is increasing verification costs, slowing investigative timelines, and introducing higher evidentiary thresholds prior to publication.

BACKGROUND

Dr. Fiorella described how organizations such as Bellingcat helped popularise open-source investigative techniques, for example during the inquiry into Russian involvement in the downing of Malaysia Airlines Flight 17 over eastern Ukraine. These investigations helped to institutionalise a structured methodology built on reverse image searches, geolocation (identifying where an image was taken), and chronolocation (determining when it was captured).

Dr. Fiorella stated that visual investigations rely on triangulation of publicly available material to verify events and attribute responsibility and that the credibility of findings depends on transparent sourcing and replicable analytical

steps. Historically, manipulation of imagery required technical expertise and specialized tools, limiting the scale of convincingly fabricated content, but Dr. Fiorella noted that this environment has shifted dramatically since 2022. Advances in generative AI have lowered the barrier to producing realistic synthetic images and video. What previously required programming knowledge and dedicated hardware can now be accomplished by users with minimal technical training.

Dr. Fiorella stated that, as of late 2025, synthetic imagery can be visually indistinguishable from authentic photographs at first glance. Although established methodologies—such as, reverse image search, geolocation, and chronolocation—continue to function as verification tools, investigators increasingly encounter AI-generated material that cannot be verified. This leads to resource-intensive investigative dead ends, increasing both the time required to validate authentic content and the risk of reputational harm if premature conclusions are drawn.

Dr. Fiorella emphasised that unverifiable media should not be treated as evidentiary material. The methodological standard remains consistent: claims must be supported by corroborated, traceable evidence. However, the evidentiary burden is rising as synthetic content becomes more prevalent and sophisticated.

Question and Answer

Given that creating a convincing military/political deepfake is now affordable and accessible, how can states establish a scalable rapid response AI detection and authentication framework without relying on larger tech platforms that may be compromised or biased?

Dr. Fiorella emphasized that technological countermeasures alone are insufficient. Investment in journalism, investigative capacity, and public education was identified as a strategic priority. He argued that states should support dedicated verification teams and embed media literacy and critical thinking skills within educational systems.

He suggested that inoculation against synthetic manipulation depends on cultivating skepticism and analytical questioning skills from an early age. While detection technologies and provenance standards may assist, resilience ultimately relies on a population capable of questioning visual content and understanding the mechanics of digital fabrication.

KEY POINTS OF DISCUSSION

- Visual investigations rely on structured open-source methodologies—such as, reverse image search, geolocation, and chronolocation—to verify events and attribute responsibility.
- Generative AI has significantly lowered the technical barrier to producing realistic synthetic imagery and video.
- While core verification methods remain valid, AI-generated content increases investigative workload, introduces uncertainty, and raises evidentiary thresholds prior to publication.
- Long-term resilience requires investment in investigative journalism, dedicated verification capacity, and education in critical thinking and media literacy.

FURTHER READINGS

Sheldon, M., Fiorella, G., Godin, J., and Gonzales, C. (2024, July 9). Russian Missile Identified in Kyiv Children’s Hospital Attack.” Bellingcat.
<https://www.bellingcat.com/news/2024/07/09/russian-missile-identified-in-kyiv-childrens-hospital-attack/>

Lee, T., Koltai, K., and Fiorella, G. (2024, April 25). OSHIT: Seven Deadly Sins of Bad Open Source Research. Bellingcat.
<https://www.bellingcat.com/resources/2024/04/25/oshit-seven-deadly-sins-of-bad-open-source-research/>

Fiorella, G. (2023, September 18). Notes from the Digital Field: Ethical Dilemmas in Open Source Research. Bellingcat.
<https://www.bellingcat.com/resources/2023/09/18/notes-from-the-digital-field-ethical-dilemmas-in-open-source-research/>



This work is licensed under a Creative Commons Attribution-Non-Commercial-NoDerivatives 4.0 International License.

© (GIANCARLO FIORELLA, 2026).

Published by the Journal of Intelligence, Conflict, and Warfare and Simon Fraser University

Available from: <https://jicw.org/>