

Satellite Image Use for Citizen-Based Monitoring & Verification: An Examination of Trust & Risk

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CITIZEN-BASED MONITORING & VERIFICATION

- To demonstrate the compliance of states with their (nuclear) treaty obligations using gathered information
- Through the actions of civil society members, involving publicly accessible means, using non-state open source intelligence

(Al-Sayed, 2022)



RESEARCH QUESTIONS

1. How do analysts who use satellite imagery for citizen-based monitoring and societal verification activities evaluate the trustworthiness of their data?
2. How do those analysts construct their understanding of risk in the context of citizen-based monitoring and societal verification activities using satellite imagery?

QUALITATIVE METHODS

- In-depth semi-structured interviews with data users
- Questions addressed: satellite imagery use, search & discovery, access, sharing & reuse, open data, trustworthiness of data, risk in the context of their work
- Interviews were recorded & transcribed for analysis in NVivo
- 12 interviews completed to date
- Interviewees from:
 - 6 different countries
 - Universities, national laboratories, think tanks, commercial organizations

PRELIMINARY FINDINGS

Trust

- Ongoing relationships with data providers
 - commercial and governmental
 - paid and open access
- Small international community of organizations that work together over long periods of time
- Decisions focus on (1) trust in data providers, and (2) triangulation with other data sources

Risk

- Monitoring & verification is inherently risky work
- The high stakes for both correct & incorrect interpretations of satellite image data are just one among many risks associated with this work
- Data-related risks were less significant than risks in other areas of their work



Zaporizhzhia Nuclear Power Plant (26 August 2022)



Hanul Nuclear Power Plant (11 March 2022)

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RESEARCH TEAM

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- Satellite images courtesy of Planet Labs PBC: <https://www.planet.com/>
- Synthetic images courtesy of Hoang Tuong Vy Nguyen