

INTRODUCTION

The Last Bridge at Arnhem

AUTHOR(S)

Jonathan Drake, Independent consultant

1-2 SENTENCE FRAMING

A consortium of volunteers attempt to use Common Space imagery to find a safe path for humanitarian workers escape a city that has become a battleground. Their desire to help and intermediate level of experience results in a failure to recognize that this is likely to cause more harm than good.

TIMEFRAMES & URGENCY

The humanitarian workers correctly perceive a severe threat to themselves within 24 to 48 hours, which they communicate to the imagery volunteers. The latter then rush to find a solution as quickly as possible. This sense of urgency leads them to loosen, forget, or overlook safeguards that would normally check the momentum of their response. The stage is therefore set for a rapid, well-intentioned misuse of data with potentially grievous consequences.

STAKEHOLDERS

1. *Medical personnel in the city of Misurata, Libya, who are in need of a safe route out of the city.*
2. *An ad-hoc team of internet-based volunteers. The medical group's contact works for a food charity, and another member of the team is familiar with Common Space imagery through a project monitoring IDP camps.*
3. *CommonSpace, whose ability to address this situation depends on its governance structure*

THE DECISION CHALLENGE

THE SITUATION

WHO IS AFFECTED?

In 2027, the Libyan conflict re-ignites, with the city of Misrata a flashpoint between rival militias. Belligerents establish a network of roadblocks and fortified positions at key intersections throughout the city. Caught in the crossfire, a group of three dozen doctors and wounded civilians are searching for a safe route from the central hospital downtown to a clinic in neutral territory on the outskirts of the city. A member of a food aid organization receives a plea for assistance from the group via Signal Messenger. They hastily assemble an ad-hoc team of contacts to decide how to respond. One member of this team has used Common Space imagery before, due to an existing project monitoring IDP camps, and obtains a 24-hour old image. The group begins attempting to map an escape route that they believe may be -if not “safe”, then perhaps “less obviously dangerous”.

They are aware that the imagery is limited by its age (approximately 24 hours) its spatial resolution (approximately 50 cm), and the time required for imagery analysis in light of the evolving situation on the ground. They attempt to use Signal to communicate this uncertainty to the trapped medical team, however it becomes clear that the latter are likely to act on any information they are given irrespective of caveats.

WHAT ARE THE DATA NEEDS?

In order to perform this task properly, near real-time monitoring of the city at ~5 cm spatial resolution would be required. This is not something that Common Space can provide, however the team feels compelled to “do what they can with what they have”

THE DECISION CHALLENGE

WHAT DECISIONS NEED TO BE MADE?

The evacuation is highly unlikely to succeed. The number of unconstrained variables is far too high, the likelihood that this could be effectively communicated to desperate people in a crisis is very low, and the likelihood that the evacuees will be captured or killed is extreme.

The fundamental decision is whether or not to proceed when the medical personnel ask if a route out of the city can be mapped. The individual responsible for this answer is anyone with access to Common Space imagery. In this scenario, it is the member of the refugee advocacy organization, but under a true “radical openness” model, it might be anyone. The next decision is whether they determine that a route can be identified with enough certainty that it is worth sharing with the medical personnel.

WHY ARE THEY DIFFICULT WITHOUT THIS DATA?

Without open imagery, the project may never begin, because the team would need to seek approval from Common Space to use the data in this way. In this case, denial of access may well be a good thing.

HOW WOULD SATELLITE IMAGERY BE USED?

An intermediate-level analyst who has used satellite imagery only in the context of IDP camps is now attempting real-time mapping of an active war zone, and is crowdsourcing analysis to others with even less experience. Open data is enabling a potentially lethal combination of good intentions, operational urgency, and groupthink, whose consequences will fall on the most vulnerable.

IMPACT, RISKS & GOVERNANCE QUESTIONS

WHAT CHANGES

WITH OPEN IMAGERY

- *Actors can obtain data, conduct analysis, and disseminate findings rapidly*
- *Oversight of uses is necessarily more reactive rather than proactive*
- *Compliance with terms & conditions may rely more heavily on fear of 'sticks' than the appeal of 'carrots'*
- *Distribution of outcomes may become more bi-modal, with successes and failures both enhanced in magnitude*
- *Governance structures for dealing with the above become all the more critical relative to the "safer" closed-access model*

POTENTIAL RISKS

- *Without safeguards, open imagery enables well-intentioned misuse in a way that is difficult to control after the fact*
- *People could literally die by relying on analysis that is poorly matched to the situation at hand*
- *Common Space could be considered complicit in or accessory to the deaths of the medical personnel, both in terms of reputation and potentially civil liability*
- *While not helpful to the medical group, the analysis products themselves could be exploited by the very militias who caused the crisis.*
- *Despite open access, a power imbalance remains in place, as the individuals most directly affected do not have access to the data or tools to analyze the situation themselves*

GOVERNANCE QUESTIONS

- ? *How do we retain the ability to address well-intentioned misuse without restricting access?*
- ? *Should Common Space ask to be informed of all new projects? Should it respond to each?*
- ? *Would a code of conduct address some of these concerns?*
- ? *Who adjudicates violations of such a code of conduct? What is the enforcement mechanism?*
- ? *If data is misused, regardless of intention, how is accountability established?*