



Setting Your Moral Compass

A Workbook for Applied Ethics in OSINT

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Stanley Center
FOR PEACE AND SECURITY

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Part One: Workbook

This workbook is designed to give you an opportunity to practice handling ethical dilemmas that are based on Real-World experiences of your OSINT colleagues in the arms control and nonproliferation world. The author interviewed 25 OSINT analysts about their ethical experience and dilemmas they faced. The framework and case studies below are based on their deepest or most frequent concerns. The majority of analysts wished to maintain their privacy, thus these case studies use fictional names for anonymity or occasionally amalgamate several concerns into one case study.

After each case study, you are asked to work through a series of steps based on the Markkula Center for Applied Ethics' recommendations.¹ You will be asked to (1) identify the dilemma or dilemmas; (2) get all the facts; (3) weigh your options; (4) test your decision with peers or imagine a hypothetical; and (5) act, learn from your decision, and evolve your thinking for next time.

¹ <https://www.scu.edu/media/ethics-center/resources/making.pdf>.

Introduction

This workbook is intended to support open source intelligence (OSINT) practitioners regardless of whether they work in a large organization or as a freelancer. International organizations, governments, universities, think tanks, commercial firms, and freelance consultants have all realized the opportunities that OSINT has to offer, but not all analysts have equal access to ethical guidance.

With the rise of OSINT capabilities and an abundance of data available, ethical guidance must also propagate otherwise we risk damage to the field as a whole. Those unethical actors in the field risk harm to everyone if the public sees OSINT as exploitative and dangerous. Most analysts genuinely wish to act ethically but say they don't know where to start, don't feel they have resources, or don't feel they have enough time to consider ethical frameworks.

Practicing ethics is like exercising a muscle. The case studies in this workbook are intended to help the analyst see a dilemma from multiple perspectives, distinguish between ethics and law, and practice in hypotheticals before facing real-world situations. Analysts seeking ethical guidance are not alone. Working with a colleague, reaching out to another group for red teaming, or even forming a loose network of accredited ethical practitioners are on the minds of many.

“Educating the mind
without educating
the heart is no
education at all.”

—Aristotle

Making an Ethical Decision

This workbook was inspired by an early collaboration with the Markkula Center for Applied Ethics and the Stanley Center. The Markkula Center offers many resources on its website, and its framework approach forms the basis for this workbook.²

Markkula identifies six major frameworks for addressing an ethical dilemma. These approaches aren't simply a checklist that you can go through to receive a correct answer. Not all approaches will apply to your situation. You may even disagree with one or more of the approaches, while some of your colleagues will agree. These approaches are best applied as different lenses from which to examine your dilemma. While they will not give you the "correct" answer, they can surface nuances that might otherwise be overlooked. If they offer you insight, use it. When the time comes, it is up to you to make the best decision, even if there is no perfect answer.

Utilitarian Approach

This approach is all about the consequences of your decision. It emphasizes reducing harm and increasing good. Since we can neither totally maximize good nor minimize harm, the goal is to find the best possible balance of good over harm. When applying it, consider who or what will benefit and who or what will be harmed.

Rights Approach

This approach focuses on the fact that all humans have innate dignity and rights. Humans have the right to choose what they do with their lives freely without harm or hindrance. These moral rights include the right to choose their own life's path, not to be injured, to privacy, and many others that remain debated in society. Some argue that nonhumans, such as animals, have rights as well. The core ethical takeaway is that it is our duty to respect others' rights.

Justice Approach

The Aristotelian origin of this approach is the notion that we should treat each other equally, though it has evolved to recognize that "equally" is not always "fairly." Thus, there are now complex societal debates on how to treat those who are historically underprivileged or overprivileged.

Common Good Approach

Another approach with a Greek origin, the Common Good Approach sees community as a good in itself. It seeks to put the benefit of the community over the individual. This approach emphasizes the common welfare of everyone and is often associated with public education, public spaces, or legal welfare systems like fire departments.

Virtue Approach

This approach marries ethics with certain virtues like honesty, courage, compassion, generosity, tolerance, love, fidelity, integrity, fairness, self-control, and prudence. Markkula recommends that you ask yourself, "What kind of person will I become if I take this action?"

² See: <https://www.scu.edu/ethics/ethics-resources/a-framework-for-ethical-decision-making/>.

Care Approach:

The Care Approach emphasizes the interdependent relationships between the stakeholders rather than following a rigid check list or defining and calculating harm. By using empathy, try to put yourself into the shoes of each of the stakeholders and appreciate their viewpoints when it comes to assessing the interests, concerns, and agency of all parties. This approach is sometimes associated with food security, equal rights, and environmental protection as a more holistic approach to human security, for example.

Applying Ethics to Real-World Problems

Each of the six approaches above represent ethical theory, however OSINT analysts work in the real-world with imperfect data, time pressures, and resource constraints. Applied ethics offers the opportunity to take philosophical ideals and place them into a real-world context.

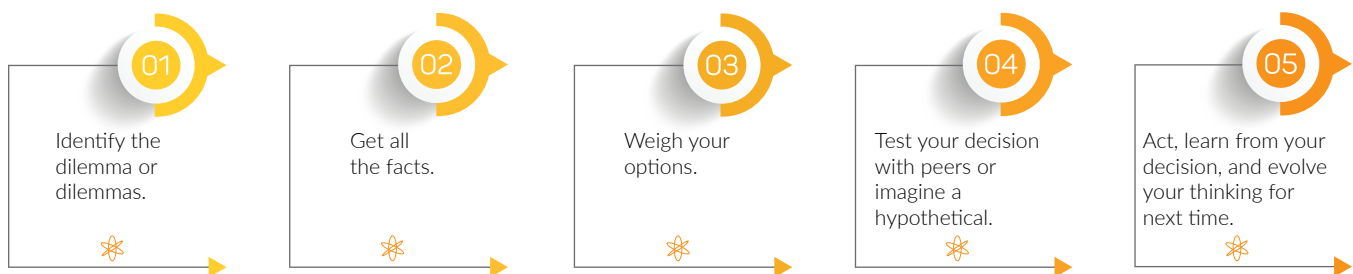
Some of the oldest examples of applied ethics include medical ethics. The Hippocratic Oath required medical physicians to swear to Greek healing gods that they would uphold ethical standards in their practice. As medicine evolves and diversifies so have the ethics associated with it.

OSINT analysts can draw much from the practice of journalism ethics. Though not uniformly alike, journalists also deal with issues such as the ethical treatment of sources, privacy, bias, and other issues.

The Markkula Framework

While there are no “correct” answers in applied ethics, the Markkula Framework developed by the Markkula Center for Applied Ethics at Santa Clara University offers a step by step approach to working through an ethical dilemma. It is important to practice thinking through ethical dilemmas, learning from them, and applying what you learned to the next time.

The framework is composed of five steps:



1. Identify the dilemma or dilemmas

First, try to identify one or more dilemmas in your situation. Putting the dilemma into your own words and writing it down can help you understand the scope of the dilemma. Ask yourself if this is truly an ethical dilemma or rather if it is a question of cost/ benefit, or even a legal issue instead. Those working on a tight budget often need to cut corners to stay on a small budget, that could be an ethical dilemma, but often is not. Similarly, many OSINT analysts confuse legal questions with

ethical questions. Laws are often rooted in ethical thinking, but not always. Regardless, OSINT analysts should be aware of the laws in their jurisdiction and the jurisdiction of those they investigate.³

2. Get the facts

Next, gather all the relevant facts that can help you chart a course of action. Identify the data, tools, and resources you have at your disposal. In addition to the facts of the case you are working on, think of resources you can consult or trusted allies who you can talk to.

3. Weigh your options

Most ethical decisions are not zero sum. Some dilemmas may be as simple as whether to publish data or not, but there can be variations on the theme as well. Could you publish some of the data and keep other data protected in case it is needed later? Could you request permission to publish data? Could you limit the audience of who receives the data? The majority of ethical dilemmas are not as simple as outlined above, but carefully think about various courses of action you could take in order not to miss an opportunity.

To do so, use the six ethical approaches outlined above: the Utilitarianism Approach, the Rights Approach, the Justice Approach, the Common Good Approach, the Virtue Approach and the Care Approach.⁴

4. Test your decision with peers or imagine a hypothetical

Select one of the options you have just outlined and test it out in your head. If you feel comfortable consulting with a trusted leader or peer, consider sharing it with them and listen to their feedback. Alternatively, imagine how someone you trust would react to your choice. The Markkula Center suggests that you visualize yourself announcing your decision on television.

5. Act, then learn from your decision, and evolve your thinking for next time

Now it is time to make your decision. You have already identified the dilemma and the relevant facts and tools needed to make a decision. You have also outlined several options and weighed them against each other using the six ethical approaches above. Implement your decision as best as you can and document how it turned out. Did anything unpredictable happen? Did you learn from your actions? Spend time learning about the experience and consider it the next time you face an ethical dilemma.

Case Studies

Here are five case studies you can review independently—or better yet—with other analysts. While the majority of these case studies are fictional, each one is based on a real-world situation or an amalgamation of experiences from your colleagues. After each case, you are prompted with a series of questions and activities to help you work through the ethical dynamics.

³ See more in the Facilitator's Guidebook, stnl.cr/osint.

⁴ See the quick reference guide in the Annex, page 61.

CASE STUDY



North Korean leader Kim Jong-Un watches the launch of an intermediate-range strategic ballistic rocket, Hwasong-12, at an undisclosed location near Pyongyang, North Korea, August 29, 2017. (Korean Central News Agency/Korea News Service via AP Photo)

DPRK Missile Image

 Olivia and Jungho are second-year graduate students working part-time at the University of Alexandria. They study international security and learn about nuclear weapons and missiles in class. During the summer, they work for Professor Lee on her project to monitor North Korea's nuclear weapons program. Part of their duties are to scan Korean-language news in North Korea and South Korea to look for signs that North Korea could be developing new nuclear-capable missiles. In addition, they've been trained to log in to the university's commercial satellite imagery accounts to check locations of suspected nuclear and missile facility sites for activity. Some commercial providers offer daily imagery of locations, meaning students can check to see if anything changed since the day before. Other commercial providers provide particularly sharp details in their images. Professor Lee has become very excited that there may be a new launch in the next few days.

North Korea tested two intercontinental ballistic missiles (ICBMs) the month prior, causing public outcry from its neighbors and the United States. The rhetoric from the American president was particularly strong. While his official statement read, "The United States will take all necessary steps to ensure the security of the American homeland and protect our allies in the region," leaks from the White House indicated that he was ready to authorize preemptive strikes. The United States and South Korea performed live-fire drills within hours of each of the ICBM tests as a self-proclaimed show of force. Tensions were running high, and the news coverage had been constant for weeks.

Olivia and Jungho were practically celebrities on campus. Each had done live television and radio

interviews describing the earlier ICBM tests. The university provost had specifically called to tell them how important their work was to the mission of the university. With two back-to-back ICBM tests in July, they were now on constant alert to see if there would be a third launch.

Meanwhile, the American president announced that any further threats from Pyongyang would be met with "fire and fury." Two days later he added, "Maybe that statement wasn't tough enough." The United States was regularly flying nuclear-capable bombers in the region. Most recently the president had said, "All options are on the table" when it comes to North Korea. At the same time, North Korean state media was condemning a new round of UN sanctions as well as the military exercises performed by the United States and South Korea. North Korean state media reported that the country's army would carry out a preemptive operation if there were signs of US provocation. The state even shot off three short-range missiles from Gangwon Province to demonstrate its own "resolve."

While Olivia was busy breaking down the short-range missile launches for Professor Lee, Jungho noticed some unusual vehicle activity at the Sunan International Airport in Pyongyang. As usual, he logged into his account to view fresh satellite imagery from a few dozen sites that he checked regularly. This imagery was relatively cloud-free, and he could see some new dark objects against the pale gray of an airstrip. This airstrip was away from the main runways of the civilian airport toward an area that was presumed to be for military activities. Jolted he realized that this could be the preparation for a new ICBM launch.

Jungho carefully processed the 70 cm resolution image in order to make measurements. He tried

to reduce the risk that shadows might create an artificially long measurement. He measured multiple times and averaged the measurements. The challenge with 70 cm resolution imagery is that one pixel in both directions could represent an error margin of up to 1.4 m. With all the facts in hand, he approached Olivia with his find.

Olivia was excited to see what Jungho had found after comparing images from the two dates. They could see there were several new objects on the airstrip. Hoping for even sharper images, they searched other commercial satellite imagery catalogs, but none had an image from that day. Olivia questioned whether they were expert enough to make this call and suggested they bring in Professor Lee. Jungho agreed but knew it would just be a matter of hours before other

groups would be reporting the same thing. He didn't want to get scooped by another group. The information was already out there.

“Diagnosing” the preparations for a missile launch is difficult. North Korea's missiles are road-mobile, so there is usually little to no notice before one appears. It was rare, but not the first time they had seen dark boxes on an airstrip. Jungho knew that everything they saw before them signaled a potential missile launch, but he wasn't sure it couldn't signal something else, like leaving containers out temporarily to prepare for construction. He also reminded himself that this activity was happening a stone's throw from an operating civilian airport. What if they called it wrong and the US president made good on the rumors of a preemptive strike? What if they got it right?

EXERCISES

DPRK Missile Image

Help Jungho and Olivia work through their ethical dilemma.

Step 1: Identify the Dilemma(s)

Olivia and Jungho believe they have evidence that North Korea is on the brink of launching what might be an ICBM. Is it an ethical issue, and what harms could be caused and to whom?

We'll start things off with some sample answers from the author, but note that none are clearcut.

Sample answers:

1. Is this an ethical issue?

- ☐ Yes, imminent missile launch is something the public deserves to know about, but will it cause a panic?
- ☐ Yes, Olivia and Jungho want to make sure they provide accurate and sound information that is not misunderstood or manipulated for politics.
- ☐ Yes, Olivia and Jungho want to make sure they do not exacerbate an already simmering conflict.

2. Are there already procedures at their workplace to guide them?

- ☐ Olivia and Jungho are students at a university, meaning there may already be university regulations on research.
- ☐ Olivia and Jungho work for a professor who is an expert in this field. They can turn to Professor Lee for technical and ethical guidance.



Step 2: Get All the Facts

So far, Olivia and Jungho's information is limited to one satellite image, and while they certainly see evidence that indicates a missile launch, they can't rule out something more innocuous like shipping containers or construction. This is nearly always the case. You must make a decision with limited information, just as you do in real life. There is never perfect information. Do the best you can with the information you have in the narrative. They could wait for another image to come in, but it might be too late for the missile launch.



Who will benefit or be harmed by the outcome of their decision?

Consider the following and discuss. Then rank the importance of the issues on the line to the left:

____ Could publication cause panic in Japan, North Korea, South Korea, or the United States?

____ Could publication feed the arguments of those wanting to make a preemptive strike?

____ Does it matter that the location is near a civilian airport?

____ If they don't publish it, will someone else do it anyway?

____ Can they publish in a way that is more accurate and responsible than others?

____ Could military satellites have better information than them?

____ Should they feel responsible for what others do with their information?

____ Anything else?

Who else can they consult with?

Jungho has already consulted with Olivia, and they have agreed to speak to Professor Lee. List some other types of people who might have insight that could help.

_____	_____
_____	_____

As you see from above, Jungho and Olivia have a lot of options available to them. This is not a binary choice between publishing or not publishing. They can wait, publish limited information, choose to publish with a trusted journalist with experience in the subject, or share the information with a limited audience, for example.

Step 3: Weigh Your Options

When weighing the best course of action, consider applying the Markkula Center for Applied Ethics' approach to your situation. You can choose one approach or several, or even rank the approaches to help you make a decision.

- ✧ **Utilitarian Approach:** Which outcome will produce the most good and do the least harm?
- ✧ **Rights Approach:** Which outcome best respects the rights of all who have a stake?
- ✧ **Justice Approach:** Which outcome treats people equally or proportionally?
- ✧ **Common Good Approach:** Which outcome best serves the community as a whole, not just some members?
- ✧ **Virtue Approach:** Which outcome leads me to act as the sort of person I want to be?
- ✧ **Care Approach:** Which outcome protects the relationships of the stakeholders and addresses the underlying causes of the dilemma?

This may be where your group has difficulty finding consensus. For example, Jungho could take the position that publishing accurate, publicly available information treats all the stakeholders equally (Justice Approach). On the other hand, Olivia could argue that the risk that the conflict escalates to war outweighs any good from informing the public (Utilitarian Approach). They are both right. The goal is to weigh the pros and cons illuminated through each of these approaches and choose a path that makes the best out of a situation that does not have a perfect solution.



Choose one of the approaches and argue for a course of action. Now argue against it.

Consider what you might do if you disagreed with a colleague or supervisor, and make a plan before it happens.

Step 4: Test Your Decision with Peers or Imagine a Hypothetical

After considering all the angles, Olivia and Jungho need to decide what to do. If they decide to publish their analysis, they could write a draft and read it out loud to themselves or to each other to see if they have mitigated some of their concerns about panic or exacerbating conflict. They should also make sure their information is accurate and any limitations of their research (such as the spatial resolution of the image) is disclosed. Technical writing can be very difficult, because you want to balance what the public needs to know without causing confusion, fear, or distrust.⁵

The Markkula Center also proposes that you imagine a hypothetical situation: If you told someone you respect—or told a television audience—which way you decided to proceed, what would they say?

If they do choose to publish, what might be important for them to emphasize in their article? Most people will only ever read the headline and first paragraph of your article. Try writing these.

As students trying to prove themselves, Jungho and Olivia may feel they need to impress Professor Lee, or prove their worth to the university and make a name for themselves. In many ways, deciding not to publish is the most difficult choice.



Try role playing to see what it feels like.

⁵ See: <https://www.scu.edu/ethics/all-about-ethics/how-should-journalists-report-a-scientific-study/>.

Step 5: Act, Learn, Evolve

Once Jungho and Olivia have made their decision, they need to implement it effectively to ensure it has the impact they intend.

What would you do if you were the one deciding? Plan out how you would implement your decision.

Once Olivia and Jungho have implemented their decision, they have an opportunity to watch how events unfold and if they had the outcome they expected. Every ethical dilemma is a learning opportunity and a chance to help you prepare for the next one. Always try to reflect and ask yourself, “How did my decision turn out, and what have I learned from this specific situation?”

Have you ever faced an ethical dilemma where you had to act during an ongoing conflict that could be affected by your choice? What did you do? If you have not faced such a dilemma, what do you think you would do?

Final Thoughts

This is a hypothetical scenario based on a real-world event. On August 29, 2017, at 5:57 AM local time, North Korea launched a Hwasong-12 from Sunan International Airport in Pyongyang. Though not an ICBM, this intermediate-range missile flew over Hokkaido, Japan, traveling approximately 2,700 km and reaching an altitude of 550 km before splashing into the Pacific Ocean. This was the second successful test after three failed Hwasong-12 tests and was probably intended to signal that North Korea could threaten US military assets in Guam, where nuclear bombers are based. Japanese citizens received cell phone alerts about the missile four minutes after it was launched.

The characters and organizations in this case study are fictional, but a real OSINT analyst faced this dilemma.

What do you think their decision was? (Answer below)

This example helps us understand an increasingly common dynamic in which nongovernmental OSINT analysts are playing an active role during an ongoing conflict. While this is relatively new in arms control, people in the fields of conflict analysis and human rights have been addressing this issue for some time.⁶



Consider some of the ways OSINT could change the dynamics of an ongoing conflict and discuss with colleagues.

⁶ See: https://www.ohchr.org/sites/default/files/2022-04/OHCHR_BerkeleyProtocol.pdf.

Answer: They chose not to publish, but shortly after someone else did. When asked, they said they would make the same decision if it happened all over again.

CASE STUDY



La Hague site, a nuclear fuel reprocessing plant in France, 2014. (US Department of Energy Photo)

Double Standard for the Country of Dovinda?

Dovinda is a state with a fraught history. War after war has defined its past and many territorial disputes remain unresolved. It has a robust military and very advanced scientific and technical abilities. The neighboring state of Mandan is ethnically, ideologically, and religiously antithetical to Dovinda. While not as technologically advanced, Mandan has been making recent overtures to acquire nuclear weapons and the means to deliver them.

The United States, United Kingdom, and Europe recognize the geopolitical importance of Dovinda's territory, which borders numerous sea routes and contains the largest sweet crude oil reserves in the region. Moreover, Mandan is seen as an autocratic pariah with substandard human rights practices that funds regional terrorism and breaks nuclear and missile non-proliferation treaties.

Decades ago, Dovindan scientists based at the Corshel Nuclear Complex are thought to have indigenously developed nuclear weapons despite intense pressure from the United Kingdom and United States. They have never officially tested nuclear weapons and are not considered a nuclear weapons state. Nonetheless, most believe that Dovinda has a credible nuclear deterrent, a fact that Mandan continually cites to justify its own nuclear weapons research.

Deondre is a full-time OSINT geospatial consultant who runs his own lucrative business with major contracts in the United Kingdom and United States. He regularly reviews commercial satellite imagery to provide briefings for governments, political risk firms, satellite companies, and occasionally research centers. He's built up his business over decades and is one of the most

respected names in satellite imagery interpretation. Satellite imagery is still on the rise in the open source world, and his technical skills are highly sought after because few understand how to procure and use imagery, let alone identify military and nuclear activities in it.

Professor Shevchenko, a nuclear engineer based at the world-renowned University of Oxbridge, approaches Deondre for an upcoming project that would be both lucrative and prestigious. In their first meeting, Professor Shevchenko explains that she is interested in learning more about Dovinda's recent activities at the Corshel Nuclear Complex. She's extremely interested in what satellite imagery can tell her about the nuclear activities happening on the ground. Though an expert in nuclear engineering and the nuclear fuel cycle, she's never used satellite imagery and is thus interested in relying on Deondre to deliver what she hopes will be a cache of exotic data for her to write about—and maybe even make tenure on—this little-studied topic.

Deondre drums his fingers on the desk, immediately realizing that this is going to be a very political topic. The reason this topic is rarely examined is because Dovinda's nuclear program is deeply polarizing and nearly taboo in national security circles. Like India, Israel, North Korea, and Pakistan, Dovinda operates its nuclear weapons program outside of the Treaty on the Non-Proliferation of Nuclear Weapons.

Professor Shevchenko first asks what thermal data can be captured from the site, hoping to be able to estimate the capacity of the reactor. Deondre explains that the current data available to the public is limited to 100 meter spatial resolution, making it nearly impossible to monitor an object the size of the reactor. At most, they would

be able to see one pixel, and the reactor core absorbs much of the heat. Undeterred, Professor Shevchenko presses for the best possible imagery so she can see the types of equipment on site. She's seen others publish on China's, Iran's, Mandan's, North Korea's, and Russia's nuclear programs, and she knows it's possible. Deondre knows that satellite imagery of Dovinda is tightly regulated out of fear that it could be used in an attack by one of its antagonistic neighbors. Imagery of the Corshel Nuclear Complex will be a tall order.

Before accepting a contract with the University of Oxbridge, Deondre checks to see if he can even purchase recent imagery of the Corshel Nuclear Complex. Company after company refuses to sell it or even acknowledge that it's captured. While they don't explain the reason, Deondre knows that the United States and United Kingdom are the largest consumers of commercial satellite imagery and can throw their weight around. Eventually, Deondre finds recent images from a Chinese satellite company.

As Deondre prepares the images, he immediately sees signs of construction at Corshel. Construction was taking place right alongside the reactor and reprocessing facilities, and the excavation was deep. Deondre pushes back from his computer pondering his situation. On the one hand, this is a very important finding. If this were a country like Iran, Mandan, or North Korea, it would be front page news. He firmly believes that all states should be held to the same standard and knows that Professor Shevchenko would be an excellent partner to prepare the information accurately. On the other hand, there is much potential for blowback. Deondre knew others who had gotten on the wrong side of Dovinda and been harassed ever since. With most of his contracts in the United States and United Kingdom, he was loath to ruin his career and didn't have the backing of a large institution as Professor Shevchenko did.


EXERCISES

Double Standard for the Country of Dovinda?

Help Deondre work through his dilemma.

Step 1: Identify the Dilemma(s)

Think about the differences between Deondre's legal obligations and ethical obligations in this situation. Ethics are a set of moral values that individuals decide on. Laws and regulations are codified rules used to govern a territory, state/province, or country. Some countries even apply. Some states even apply extraterritorial laws to their citizens, which they will impose even if their citizens are abroad.

 While you are not obligated to be ethical (though it has many benefits!), you are required to be compliant with the law or otherwise risk a punishment from the governing authority. That being said, some laws are unethical or immoral, and people do choose to disobey them. Make sure you understand the difference.

List some of the legal and ethical considerations Deondre should pay attention to below.

Legal

Ethical

Deondre faces other pressures, like preserving his business and avoiding harassment. How would you weigh these considerations?

Step 2: Get All the Facts

Deondre has done enough preliminary work to know there is sufficient imagery to make a sound judgement, but what should he consider about those who will be most affected by the decision?

List the individuals or groups that have a stake in the outcome.



Discuss who will benefit or be harmed by the outcome of the decision.

What kinds of people might give Deondre good advice?

Step 3: Weigh Your Options

Deondre is confident in his satellite imagery assessment, but he's concerned about a number of other factors. Consider the following:

- Deondre thinks all states should be held to the same standard, but does Dovinda deserve extra consideration due to its security situation? Does Mandan?
- Deondre hasn't entered a contract with Professor Shevchenko or her university yet, so does he owe her anything?
- Dr. Shevchenko is an expert on nuclear engineering but not satellite imagery. Is there a risk she will misinterpret the data if he's not involved in its analysis?
- Neither Deondre nor Professor Shevchenko are from the region. Should they get a local opinion?
- Is intimidation an ethical consideration?
- Anything else?

What are some of the options Deondre should consider to mitigate his concerns? Don't forget that you can apply the Markkula Center for Applied Ethics's approach to the situation. You can choose one approach or several, or even rank the approaches to help you make a decision.

✱ **Utilitarian Approach:** Which outcome will produce the most good and do the least harm?

✱ **Rights Approach:** Which outcome best respects the rights of all who have a stake?

✱ **Justice Approach:** Which outcome treats people equally or proportionally?

✱ **Common Good Approach:** Which outcome best serves the community as a whole, not just some members?

✱ **Virtue Approach:** Which outcome leads me to act as the sort of person I want to be?

✱ **Care Approach:** Which outcome protects the relationships of the stakeholders and addresses the underlying causes of the dilemma?

Which approaches did you find the most helpful? Which did you skip and why?

Step 4: Test Your Decision with Peers or Imagine a Hypothetical

Next Deondre needs to decide what to do. What do you suggest Deondre do in light of your understanding of the case? Pretend you are Deondre and explain your decision to Professor Shevchenko.

How might Professor Shevchenko react? How might Dovinda?

How do you check your own biases when conducting OSINT investigations? List some ways below.

- ---
- ---
- ---
- ---
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- ---

Step 5: Act, Learn, Evolve

Deondre is ready to act. What can he learn from this experience, and how can he incorporate it into resolving his next ethical dilemma?

Final Thoughts

The characters, places, and organizations in this case study are manufactured, but a real OSINT analyst faced this dilemma and wishes to remain anonymous.

What do you think the analyst decided to do? (Answer below)

Answer: The analyst didn't share the image, but did facilitate and fact check a small article on the subject. Another institution picked up on the article and published the image, which caused widespread news coverage in the region and what one senior analyst in the field called "an international incident" when other images from different companies came out.



Analysts must be cautious when understanding local languages, cultures, geography, and politics, and check their own biases.

OSINT is booming in the United States and United Kingdom but still emerging in other countries. Since neither Deondre nor Professor Shevchenko are from the region, they should consider consulting a local expert from Dovinda and Mandan.

Intimidation is a growing problem for independent OSINT analysts who don't have the protection or advice of a larger organization. Even large universities and media outlets grapple with how to protect staff from cyberattacks and other forms of digital—or in some cases, physical—harassment.



What can independent analysts do to help each other? Do you have a plan?

CASE STUDY



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Avoiding Harm to a Bystander or Dupe

Irina manages a team of analysts at a research center who are working on a complex project of mapping UN sanctions-evasion activities. Much of their work takes place at the office, where they check corporate databases for business and ship records. Some of this data is free to the public from government and international organizations, and some is purchased from data vendors. Because ships may turn off automatic identification system beacons notifying their position, the analysts also purchase satellite imagery to spot if ships are off track or meeting other ships to swap cargo. If they identify a ship that is where it isn't supposed to be or potentially handling goods barred by sanctions, they immediately swing into action to understand the corporate network that supports its activity.

One of Irina's top concerns is the large quantity of data they handle related to personal information. There are almost always names, phone numbers, and addresses of individuals associated with owning a ship or being a corporate director. In addition, it can be tricky to separate entities from individuals or deal with an individual who operates in two companies, or even duplicate names. Still, her team has many techniques using photographs, geographic data, and birth dates to reduce the risk of making a mistake. Yet, Irina constantly finds herself balancing the information that is necessary to build the network while limiting the data that might expose someone to harm.

Officially, her team is not required to follow guidelines from an institutional review board, because the research is not considered human subject research, but that could change in the future. Furthermore, one of their partners—another think tank in the field—does implement

a strict internal peer-review process with several rounds of internal and external review before publication.

Another concern is what to do if you identify illegal or disturbing activity that is beyond the scope of your work. One employee, Ramesh came to Irina saying he had discovered that a defense contractor had published right-wing extremist language and even threatened self-harm on a social media site, yet it had nothing to do with sanctions busting. In another case, they used information from the social media account of a suspect's mistress to identify that the suspect was in a location conducting criminal activity, but there was no indication the mistress knew about or participated in any of the illegal activity.

In a recent case, Ramesh had been tracking the owner of a vessel suspected of moving fuel from North Korea in contravention of sanctions. He identified the name in corporate ownership records and began to search for all evidence of who this person was. Based on the ship registry, the International Maritime Organisation number, utility bills, and charitable donations, Ramesh began to paint a picture of the owner. He used Google Earth to check the address. Though the ship was bought for well over \$1 million, it seemed the suspected owner of the ship was a 72-year-old Cambodian man who lived in a one-room home with a metal roof in a rural village. Social media indicated he helped at a small family restaurant run by relatives.

While Ramesh was certain he had the right man, he didn't feel like things added up. Ramesh was bothered that the documentation related to the man's ownership of the vessel was handled by an intermediary, though the practice is common in the shipping business. That is to say, for all



Cathyrose Melloan/Alamy Stock Photo

intents and purposes, this man was the legal owner of the ship, but Ramesh suspected he may have been duped.



Ramesh meets with Irina to discuss their options. They first consider their legal obligations. As a European research center, they are required to be in compliance with the General Data Protection Regulation (GDPR) even though the person they are researching is based in Cambodia. As a best practice, they have already prepared an internal memo explaining how their work is carried out in the public interest under Article 6(1)(e) of the GDPR. Their memo also outlines how the data is handled and secured, and when it will be removed from their possession. This memo will come in handy if they face legal questions later.

Their country does not have a law establishing a “right of reply,” though others in the region do. Right of reply is the concept that individuals or entities have the right to defend themselves against public criticism or accusations in the same venue where it was published. Usually, this concept is addressed in media outlets and publishing houses rather than research centers, but in the end they are publishing a report publicly. Some media organizations like the BBC go above and beyond the law and implement an editorial requirement for right of reply.



While they do not have a legal obligation to reach out to the man in Cambodia, Ramesh thinks they might have an ethical one, particularly if his identity was stolen or he was duped.

EXERCISES

Avoiding Harm to a Bystander or Dupe

Help Irina and Ramesh handle this ethical dilemma.

Step 1: Identify the Dilemma(s)

Irina and Ramesh have identified a specific ethical concern regarding whether they should reach out to the man in Cambodia to see if he wants to respond to the fact that he is the owner of a ship that is involved in illicit trafficking of fuel from North Korea. However, they have broader issues related to handling of data like names, phone numbers, emails, and addresses of individuals. In addition, researchers regularly come upon information that is extraneous to their investigation but may indicate separate criminal or harmful behavior. Finally, some of the data they have is not from someone directly involved in a sanctions busting but a family member, lover, or other bystander or even dupe.

Review the case and list any dilemma you think Irina and Ramesh should address. Remember that legal and ethical dilemmas are different, and mark any legal issues with “L.”

- _____
- _____
- _____
- _____
- _____

Did you choose anything that is about cost or efficiency? Those aren't ethical issues but are important to OSINT analysts regardless of whether they are an individual for-profit analyst or work in a large nongovernmental organization (NGO) or university.

How would you weigh the ethical, legal, and cost priorities if you were Irina? Why?

Step 2: Get All the Facts

Regarding the fuel ship, what are the relevant facts of the case? What facts are not known? How can Ramesh gather additional information?

If Ramesh does reach out to the man in Cambodia, what steps should he take to make sure he is in compliance with his organization's rules, protects his own privacy, and protects the man's data?

Can you think of any creative solutions that would help Ramesh?

Step 3: Weigh Your Options

Ramesh has already spoken to his boss Irina, and they are now weighing options. Consider the following:

- Even if they are not obligated to give the Cambodian man a right of reply, is it more ethical to do so? Should they publish his name at all?
- Would alerting the man to the investigation potentially undermine their efforts and make it harder for law enforcement?
- If they do reach out to him, what is the best way to interact given the cultural and language differences?
- Does it matter if he knowingly owned the ship or if he was duped into it?
- What about other kinds of bystanders? What about the mistress whose social media showed potential criminal activity of her lover? Will she be at risk if they publish the data from her account? Would the ethical decision change if she were a spouse or child? What if she was a sex worker?

Apply the Markkula Center for Applied Ethics's approach to the situation. You can choose one approach or several, or even rank the approaches to help you make a decision.

✱ **Utilitarian Approach:** Which outcome will produce the most good and do the least harm?

✱ **Rights Approach:** Which outcome best respects the rights of all who have a stake?

✱ **Justice Approach:** Which outcome treats people equally or proportionally?

✱ **Common Good Approach:** Which outcome best serves the community as a whole, not just some members?

✧ **Virtue Approach:** Which outcome leads me to act as the sort of person I want to be?

✧ **Care Approach:** Which outcome protects the relationships of the stakeholders and addresses the underlying causes of the dilemma? Which approaches did you find the most helpful? Which did you skip and why?

Step 4: Test Your Decision with Peers or Imagine a Hypothetical

Remember that Irina is in a position of greater authority than Ramesh at this institution, but neither are at the top. Choose a time you had to bring an ethical issue to the attention of a supervisor or leader. Think about how Irina can present their plan to leadership for handling the possibility that the Cambodian man was duped into owning the ship.

Imagine you are giving advice to a colleague with the same dilemma. How would you advise them?

Step 5: Act, Learn, Evolve

Based on your decision above, how might you implement it most effectively? Consider ethical, legal, and cost factors.

What are your contingency plans?

What are your long-term plans to handle data privacy concerns and right of reply?

Final Thoughts

The characters and organizations in this case study are fictional, but real OSINT analysts faced this dilemma. They decided to reach out to the man who owned the ship but were concerned about language and cultural differences. They reached out to a major media outlet that had local knowledge, a higher standard on right of reply, and more resources than they did. The international media outlet used one of its local reporters to speak with the man, who said he had no idea a ship was purchased in his name. The man retired from working at various maritime organizations, and it seems plausible that they were the ones operating the ship using his identity. The media outlet published the report on the illicit network, and decided to publish the documents linking the man to the ship, however it also included information provided by the man.

Privacy is the number one concern among the 25 OSINT analysts interviewed for this research project. Some of these concerns are legal due to GDPR and more recent laws promulgated by federal states or even the California Consumer Privacy Act (CCPA). While legal considerations are different from ethical ones, it is still important to be aware of them in order to act accordingly.



Do you or does your organization have a privacy policy?

CASE STUDY



Season/Adobe Stock Photo

Using Sock Puppet Accounts

Carlos and Sophia work at a small but prestigious OSINT consulting firm in the United States. The firm does a mixture of due diligence on customers and employees for banks and insurance companies and also tracks nuclear proliferation for governments and international organizations. Carlos is an anti-money-laundering expert with over a decade of experience working inside and outside banks. He has worked on several key investigations relating to insider threats at banks and is generally considered to be the go-to person around the office.

Sophia is a new hire just coming from an international organization. She's an expert on proliferation threats and knows the nuclear fuel cycle inside and out. She has about five years of experience analyzing social media, news, videos, and photos to track the flow of materials that could be used in nuclear weapons programs. Sophia decides early to ask Carlos for some tips on investigations. She can already tell that the work environment at the firm is different from the storied hallways and cramped offices of her old organization.

Carlos and Sophia get a cup of coffee and start talking shop. Sophia's quick to cut to the chase. "So what are the rules here?" Carlos laughs. "So you expected a two-inch manual on how to conduct an investigation?" He smiles, remembering the tightly controlled environment of his most recent bank job. He replies, "don't punch down, and just ask for help from your boss if you need anything." Sophia smiles, thinking she can finally put her skills to use without a ton of bureaucracy and paperwork slowing her down.

The following month, she begins to onboard her first new client. She's excited because this means she won't just be managing cases from her predecessor, and she's landing a prestigious new

government contract that will impress her boss. She has the general statement of work (SOW) lined up, and she's in final talks with her point of contact, Robin, to go over the details of the contract.

Robin joins her on videoconference to discuss the contract. Sophia briefs them on the plan to collect information from social media, saying they will track groups like scientists, engineers, students, and interpreters who have public social media accounts as they travel to countries with proliferation risk. Robin interjects, "You are going to use sock puppets, right?" Sophia takes a breath, hesitating. She has never been permitted to even consider using a sock puppet account before.

Sock puppet accounts are social media accounts that do not use the owner's real name. At her old job, you used your personal social media account or maybe one representing the organization, or it didn't get investigated. Robin shuffles some papers on their desk and continues "Look, not to put too fine a point on it, but we're coming to you to get this information without tipping off proliferators that we're watching. We don't use sock puppets, but I'm under the impression that you do." Sophia nods and says, "I'll look into this," before moving on to the next part of the contract.



Alexbrn Own work, CC BY-SA 4.0 Photo

After the meeting, Sophia heads directly to Carlos's cubicle. "Do we use sock puppets here?" Carlos swivels around instantly. "Of course!" Sophia lowers her voice, whispering, "At my old job we were forbidden from using sock puppets. We'd get fired for impersonating someone."

"You don't have to impersonate a real person, and in fact, please don't, but it's just easier and faster."

Sophia looks at the ceiling. "I don't know, it seems unethical."

Carlos shrugs, "Hey, it's your call, but after a few years on the job, I don't want the 'bad guys' knowing who I am."

Sophia nods, but equivocates, "Yeah, but what am I supposed to do? Lie to them? Isn't that entrapment? We don't even know that they are 'bad guys.'"

"I don't lie, I just use the sock puppet to see what's on their LinkedIn profile, or like, what conferences they're Instagramming," Carlos replies.

"So, I'm just, like, supposed to tell my employees to make these accounts? How should they behave?"

"Look, you're doing them a favor. Do you want to tell your employees to connect their auntie to our work? That's unethical."

Sophia nods noncommittally. Carlos shrugs and turns back to his keyboard. "You do you, but don't mess up the contract. Once you enter the contract, we're all liable."

Sophia heads back to her office to think.

EXERCISES

Using Sock Puppet Accounts

Help Sophia work through her ethical dilemma.

Step 1: Identify the Dilemma(s)

Sophia and Carlos each have different but compelling takes on the use of sock puppet accounts.

Generally speaking, a sock puppet account is an active social media account on a site like LinkedIn, Facebook, Twitter, or VKontakte that uses a name other than the operator's real name. While some sock puppet accounts are used to impersonate celebrities and people of note for malicious or satirical purposes, they are not explicitly designed to do this. That said, sock puppets are used in malicious activities like stalking and harassment.

Social media accounts with privacy settings turned on means the public cannot see what is posted unless they are a "friend" on Facebook or a "colleague" on LinkedIn, for example. Some OSINT analysts use sock puppet accounts so they will be added as a trusted follower and be able to see information like the location, date of birth, friends or colleagues, photos, videos, scientific publications, and conference attendance of the person they are following. This data can be monitored manually, and it can be scraped and analyzed to learn things like when the person is awake, the network of their friends and colleagues, and how often they write about certain topics.

Review the case and list any dilemma you think they should address. Remember that legal and ethical dilemmas are different, and mark any legal issues with "L."

- _____
- _____
- _____

Sophia already spoke to one of her co-workers, but what other resources may be available to her inside or outside her workplace?

Inside

Outside

Step 2: Get All the Facts

Regarding the use of sock puppet accounts, what or who should Sophia consult? Check all that apply.

- | | |
|--|---|
| <input type="checkbox"/> Employee handbook | <input type="checkbox"/> State/provincial laws |
| <input type="checkbox"/> Boss | <input type="checkbox"/> Markkula Center for Applied Ethics |
| <input type="checkbox"/> Colleagues from her previous job | <input type="checkbox"/> In-house counsel or compliance officer |
| <input type="checkbox"/> A professor of ethics | <input type="checkbox"/> HR |
| <input type="checkbox"/> Robin | <input type="checkbox"/> Berkeley Protocol |
| <input type="checkbox"/> Robin's government agency | <input type="checkbox"/> Religious leader |
| <input type="checkbox"/> Carlos | <input type="checkbox"/> Head of the firm |
| <input type="checkbox"/> Mom | <input type="checkbox"/> Terms of Service/Terms of Use of the social media site |
| <input type="checkbox"/> Firm's guide on best practices for research | |
| <input type="checkbox"/> Federal laws | |

Regarding forming a contract, what or who should she consult? Check all that apply.

- | | |
|--|---|
| <input type="checkbox"/> Employee handbook | <input type="checkbox"/> State/provincial laws |
| <input type="checkbox"/> Boss | <input type="checkbox"/> Markkula Center for Applied Ethics |
| <input type="checkbox"/> Colleagues from her previous job | <input type="checkbox"/> In-house counsel or compliance officer |
| <input type="checkbox"/> A professor of ethics | <input type="checkbox"/> HR |
| <input type="checkbox"/> Robin | <input type="checkbox"/> Berkeley Protocol |
| <input type="checkbox"/> Robin's government agency | <input type="checkbox"/> Religious leader |
| <input type="checkbox"/> Carlos | <input type="checkbox"/> Head of the firm |
| <input type="checkbox"/> Mom | <input type="checkbox"/> Terms of Service/Terms of Use of the social media site |
| <input type="checkbox"/> Firm's guide on best practices for research | |
| <input type="checkbox"/> Federal laws | |

Some of these options may be available to Sophia and some may not. Some may be more appropriate than others. Make sure to distinguish between the ethical concerns of the sock puppet issue and the legal concerns of the contract.



Step 3: Weigh Your Options

Sophia is transitioning from the way she was conducting OSINT analysis in one organization to a new organization. Change is hard, and she is right to stop and consider her options before she commits to a course of action, especially one with a contract attached. Consider the following:

- What are the pros and cons of sock puppet accounts?
- Does it matter that the government agency supports sock puppets?
- Does it matter that the government agency is using her firm to avoid notice?
- Is there an ethical difference between impersonating a real person and creating a fictional person?
- Does it matter if someone doesn't really know how to use the settings on their social media account?
- If Sophia decides to use sock puppet accounts, should she talk to the person or try to convince them to reveal information?
- What is the difference between an agent of law enforcement and an OSINT analyst when it comes to ethics and tactics?
- Carlos argues that Sophia should not force her employees to use their real names for their own security and safety. Is he right?
- What if using a real account tips off proliferators who change their methods, making them harder to stop?

Apply the Markkula Center for Applied Ethics's approach to the situation. You can choose one approach or several, or even rank the approaches to help you make a decision.

✱ **Utilitarian Approach:** Which outcome will produce the most good and do the least harm?

✱ **Rights Approach:** Which outcome best respects the rights of all who have a stake?

- ✧ **Justice Approach:** Which outcome treats people equally or proportionally?
- ✧ **Common Good Approach:** Which outcome best serves the community as a whole, not just some members?
- ✧ **Virtue Approach:** Which outcome leads me to act as the sort of person I want to be?
- ✧ **Care Approach:** Which outcome protects the relationships of the stakeholders and addresses the underlying causes of the dilemma?

Take the role of Carlos and prepare your argument for using sock puppets.

Now take the role of Sophia and prepare your argument against.

The use of sock puppet accounts could be considered on a spectrum. Circle your use level.

No sock puppet	Silently viewing accounts with your sock puppet	Silently scraping data from accounts	Having conversations using a sock puppet	Suggesting illicit activity using a sock puppet
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Discuss your position with a colleague.

Regarding contracts, it's best to follow the procedure established by the person responsible in your organization. If you are an independent OSINT analyst, it's worth meeting with an attorney in your jurisdiction to understand the generalities of contracts or even to make your own boilerplate language for clients, and then follow up based on specific cases as needed.⁷

Step 4: Test Your Decision with Peers or Imagine a Hypothetical

Now it's time for Sophia to make a decision and test it out. Since she needs to follow up with Robin, help her prepare a SOW based on your decision of what she should do.

Now help her prepare her remarks for her next conversation with Robin.

What should she do if Robin—the client—doesn't agree?

⁷ For more information on handling contracts when ethical issues are at stake, see the facilitator's guidebook and curriculum, stnl.cr/osint.

Have you ever faced a situation like this? If you face it again, what would you do?

Step 5: Act, Learn, Evolve

Based on your decision above, help Sophia write a policy for her employees so they understand the boundaries of the decision.

Do you or does your organization have a policy on sock puppets? If so, describe. If not, how would you write a policy and make it easily understood and followed?

Final Thoughts

This case study represents an amalgamation of several OSINT analysts' views on sock puppet accounts. While the characters and organizations are fictional, the perspectives represented are real. OSINT analysts are keenly aware that sock puppets can be an ethical gray zone. Several managers of OSINT analysts expressed concern about both requiring their employees to use their real accounts or requiring them to use sock puppets. Employees are aware of what they are being asked to do and are not always sure what to do if they don't agree with an OSINT method.

! One thing that may be overlooked by OSINT analysts are the terms of use of the social media sites they are using. Some sites, like Facebook, prohibit the use of the site with a name that is not on your ID card.⁸ Sites may also prohibit the scraping of data from their site, so it's worth checking the "Terms of use" or the "Terms of service" section of the website.

At one point, Sophia refers to "entrapment." Typically, the term "entrapment" only refers to an activity of a law enforcement agency.⁹ It's a common misperception that an individual can "entrap" someone. That being said, OSINT analysts should remember that their role and responsibilities are not the same as law enforcement agents.

Some analysts in the private sector have expressed concern that their clients may misuse their work or use their data beyond its intended purposes. Depending on the jurisdiction, this may represent a low legal risk to you. However, if you are concerned about the ethical handling of the analysis or data you produce as an OSINT professional, there are many good options beyond turning down the contract in the first place.

! The head of one OSINT company said he was approached by a European government to collect telephone GIS data on migrants coming from North Africa and the Middle East. Ostensibly, it was for the purpose of providing services, however, he felt strongly that it would be used to target the world's most vulnerable. He said that if his firm had been asked to target the smugglers who were trafficking in migrants, he might have had a different answer. As the head of his own organization, he could make the call to turn down the contract and lose business, but not everyone can. He noted that other organizations did the work instead.

The legal remedies for a client misusing your data are limited and likely inadequate. Depending on the jurisdiction, you could receive monetary compensation if you can demonstrate destruction of data or damage to your reputation, but this can be quite expensive and difficult to prove. It's also possible that a court might rule that the data be removed from your client, but as we all know, data is easy to copy, whether it is on a private drive or on the internet. Lawsuits of this nature are expensive and can take years to conclude.

⁸ See: <https://www.facebook.com/help/112146705538576>.

⁹ For a US perspective, see: <https://www.nolo.com/legal-encyclopedia/entrapment-basics-33987.html#:~:text=Entrapment%20is%20a%20defense%20to,someone%20to%20commit%20a%20crime>.

CASE STUDY



Megaworks/Adobe Stock Photo

Unintentional Harm to Employees

Chunhua is program director of the chemical, biological, radiological, and nuclear (CBRN) program at the Paris School of Economics. She's an expert on nuclear security and manages a team of three analysts who cover a portfolio running the gamut of weapons of mass destruction, as well as the risk that nonstate actors could acquire them. It's a tightly stretched team that works hard and always delivers. Chunhua's proud that she put together such a great team of diverse talents and knowledge. She knows she's tough and often brags about how hard-core her team is when other colleagues present on more abstract deterrence and compellence topics at the university.

Sani is one of her analysts, and his focus is on preventing nonstate actors from acquiring CBRN materials for the purpose of terrorist attacks. He's an expert on Boko Haram, as well as the larger Islamic State. He's a valuable asset to the team because he speaks Hausa, English, and French fluently, though he is quite reserved and rarely speaks at all.

Amira is another analyst who jokes that she's the failed doctor her parents always wanted. Rather than patch up rich ski bums like her dad, she wanted to make a difference with political science and switched out of pre-med. She puts her medical skills to use by analyzing videos of people experiencing trauma after a purported chemical weapons attacks.

Antoine rounds out the team. The youngest of the group, he's an intern and student. He mostly collects data from French nationalist sites and is writing a paper on the rise of right-wing extremism in France.

One afternoon, Antoine leaps up from his desk, slams shut his laptop, and storms off. He doesn't return for the rest of the day. Chunhua noticed that he's been somewhat disrespectful and curt around the office. She chalks it up to being a bit inexperienced and maybe partying too late. He does sometimes come into the office looking like he never went to bed. She makes up her mind to talk to him about it next week after she finishes editing the final draft of their most recent report on the Islamic State West Africa Province (ISWAP) and radiological sources. It's a big project with a ton of data and it's due next week. She'll probably work all weekend.

Several months ago, she tasked Sani with collecting evidence of ISWAP attacks in areas near Nigeria's research and medical reactors. News coverage has been sketchy, so she's been asking for original source material like photos, videos, and satellite imagery of attacks on convoys, military bases, and even humanitarian outposts. She's concerned not so much about the nuclear reactors themselves but about the transport of fissile material on some of the road routes. There's no imminent sign of Boko Haram expressing interest in radiological weapons, but the Islamic State is a concern and ISWAP could try to acquire fissile material.

Sani's been great. He comes in early and works quietly all day. He's captured a trove of data with Antoine, so much that Amina's been pulled in for the last few weeks. There were hours of videos to comb through. Some of it is Boko Haram and some is ISWAP; none of it is pretty. Because of the similarities between the groups, the analysts have been looking for flags or insignias that differentiate the groups. ISWAP is thought to be less vicious with civilians than Boko Haram, but there are still cell phone videos of rape and



People attend a funeral for those killed by suspected Boko Haram militants in Zaabarmar, Nigeria, Sunday, Nov. 29, 2020. Nigerian officials say suspected members of the Islamic militant group Boko Haram have killed at least 40 rice farmers and fishermen while they were harvesting crops in northern Borno State. The attack was staged in a rice field in Garin Kwashebe, a Borno community known for rice farming. (Jossy Ola/AP Photo)

bombing victims to comb through. Each piece of evidence was geolocated and tied to a geographical place on a map.

Amina is her usual cheerful self. She even shares some tips she uses when looking at videos of chemical weapons attacks. She says she takes regular breaks and eats sugar. The men mostly shrug it off, but Chunhua says they should do whatever they need to do to get the job done.

The next day Amina knocks on Chunhua's door and asks to talk. Amina looks nervous and explains that she doesn't want to undermine her colleagues, but she's a little worried about them. Sani barely talks to her anymore, and Antoine keeps blowing his top. Chunhua's manager instincts kick in immediately, and she pulls out a notebook. "No, no, it's nothing serious," says

Amina. "I think they are getting burned out from the attack videos. I feel it too sometimes."

"In fact, there is one video that makes me really uncomfortable. I know we need to document all the evidence, but I kind of wanted to ask if we could withhold the rape victim videos from publication. Those women will get shunned if they are identified."

"It's not just this project, but you know—well—Antoine has found some white nationalist propaganda in his own neighborhood, and Sani's—well—I think he's just getting too withdrawn. Even for him. Did you know he has a brother in the Nigerian Army?"

Chunhua thanks Amina for bringing this to her attention and promises to take action.

EXERCISES

Unintentional Harm to Employees

Help Chunhua handle the situation in the office.

Step 1: Identify the dilemma(s)

Chunhua feels terrible. Is it ethical for her to ask her employees to look through this violent content? It must take a toll.

Review the case and list any issues that you think she should address.

Chunhua works at a university; what resources might be available to her? What if she ran her own start-up instead of a big university??

University

Start-up

<hr/>	<hr/>
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Step 2: Get All the Facts

Regarding Sani, what facts are known or not known? How can Chunhua sensitively inquire and provide him support if he is feeling trauma?

Regarding Antoine, what facts are known or not known? How can Chunhua sensitively inquire and provide him support if he is feeling trauma?

Can you think of any creative solutions that would help Chunhua limit harm to her employees?

Step 3: Weigh Your Options

Chunhua has already heard from Amina, and she probably needs to speak to Sani and Antoine before making up a plan for handling harmful content in the office. Consider the following:

- What are the power dynamics in the office?
- What are the gender dynamics in the office?
- What are the cultural dynamics in the office?
- What evidence needs to be published and what can be withheld regarding the rape victims?
- Should Sani's brother's safety be considered?
- Should they be concerned about reprisals to their office from far right extremists?

Apply the Markkula Center for Applied Ethics's approach to the situation. You can choose one approach or several, or even rank the approaches to help you make a decision.

✧ **Utilitarian Approach:** Which outcome will produce the most good and do the least harm?

✧ **Rights Approach:** Which outcome best respects the rights of all who have a stake?

✧ **Justice Approach:** Which outcome treats people equally or proportionally?

✧ **Common Good Approach:** Which outcome best serves the community as a whole, not just some members?

✧ **Virtue Approach:** Which outcome leads me to act as the sort of person I want to be?

✧ **Care Approach:** Which outcome protects the relationships of the stakeholders and addresses the underlying causes of the dilemma?

Which approaches did you find the most helpful? Which did you skip and why?

Step 4: Test your Decision with Peers or Imagine a Hypothetical

Imagine you are Chunhua, and write out the first paragraph of what she might say to Sani.

Do you or your organization have a policy on trauma? If so, describe it. If not, write a proposal for one.

Step 5: Act, Learn, Evolve




Based on your decision above, how might you implement it the most effectively? Consider ethical, legal, and cost factors.

How might Chunhua onboard a new employee regarding the issue of traumatic media consumption?

What are your long-term plans to handle traumatic exposure to media?

Final Thoughts

The characters and organizations in this case study are fictional, but the scenario is based on an amalgamation of comments made by real OSINT analysts who wish to remain anonymous. In addition to the ethics around requiring employees to view violent content, one analyst felt that his family abroad may have been put in danger by the activities of his larger institution. Additionally, one analyst called for a greater focus to be placed on gender in conflict and to prevent revictimization of those most vulnerable.

-  OSINT analysts want to do good, but they might not realize the negative impact of violent digital content on their mental health, particularly until universities begin to adopt curriculum on this subject. Every person is different, and gender and culture can influence how people are affected and how willing they are to come forward or seek healthy coping skills.
-  Best practices dictate that resources should be put in place for employees before beginning a project with violent media. New employees should be trained as they are onboarded, and then regular training should be available as necessary.¹⁰
-  Do you or does your organization have a trauma policy?

¹⁰ For additional information on vicarious or secondary trauma, identifying its signs, and mitigating its harm, see the facilitator's guidebook and curriculum, stnl.cr/osint.

CASE STUDY



DedMityay/Adobe Stock

Buying Data on the Dark Web

In perhaps one of the biggest OSINT coups yet, Bellingcat partnered with CNN, Der Spiegel, and the independent news website the Insider to identify the network of chemical weapons experts inside the Russian Federal Security Service (FSB) as they trailed political opposition leader Alexei Navalny. During this time period, Navalny was poisoned with a chemical weapons agent in the class known as Novichok.

On August 14, 2020, Alexei Navalny flew from Moscow to Novosibirsk, Russia, where social media show him meeting volunteers and posing with fans. On the 17th, he continued to Tomsk, where he held meetings with volunteers of his campaign center and election candidates. He stayed at the Xander Hotel while filming videos for his center over two days.

On August 20, he left his hotel for the Tomsk Airport to return to Moscow. A photo posted on social media shows him drinking something from a paper cup in the Vienna Cafe inside the Tomsk Airport about 40 minutes ahead of his flight, according to a clock on the wall. Minutes later, another social media user posts a photo of him on an airport bus. His plane took off at 8:06 AM local time.

According to his travel companion, he began to feel sick immediately after takeoff. The plane made an emergency landing at Omsk Central Airport. He can be heard groaning on a video taken on a smartphone inside the plane as someone wearing a yellow vest and blue medical gloves walks by. Another video shows him being carried in a sling-like stretcher into a yellow ambulance. He was then taken to the Omsk Emergency Hospital Number 1.

While the hospital in Omsk said there was no evidence of poisoning, Navalny was transferred to a hospital in Berlin for treatment two days later at the request of his family. German doctors then confirmed poisoning by a Novichok agent. By September 9, German doctors were able to bring Navalny out of a medically induced coma and later off of a mechanical ventilator. Navalny eventually returned to Russia, where he was arrested and imprisoned.

According to Bellingcat:

“A German military laboratory, two independent European labs and the Organization for the Prohibition of Chemical Weapons (OPCW) all identified the toxin as a nerve agent belonging to the Novichok group. The OPCW identified the toxin as a



@maxseddon

cholinesterase inhibitor structurally resembling the known Novichok variants, but one that was not included in the list of banned nerve agents updated after the Skripal poisoning in 2018. This implied that the agent used on Navalny was of a more recent, previously unknown type.”¹¹

Bellingcat’s investigation showed that Navalny had been followed by FSB agents with chemical and medical expertise on over 30 flights in 2017 during his presidential election campaign and 2019–2020 leading up to his August 20 poisoning. They even theorize that there may have been an attempt weeks earlier in Kaliningrad. Bellingcat was further able to identify three men who trailed him to Novosibirsk on August 14, and then to Tomsk where he was poisoned: Alexey Alexandrov, 39, Ivan Osipov, 44—both medical doctors—and Vladimir Panyayev, 40. They were supported by at least five more FSB agents, some of whom also followed Navalny to Omsk after the emergency landing. According to telephone records obtained by Bellingcat, the team communicated with each other throughout the trip, as well as when Navalny left his hotel for the airport, and at the suspected time of the poisoning.¹²

In order to put together the network of FSB agents, identify them by name, locate them by nearest cellphone tower, and learn of their medical and chemical experience, Bellingcat purchased leaked or stolen data from one of Russia’s many data markets on the dark web. For only a few hundred euros worth of cryptocurrency, they were

able to buy telephone records with geolocation data, passenger manifests, and residential data. Aside from the data brokers paying off low-level employees for data, there are huge batches of leaked or stolen data readily available via torrent. According to Eliot Higgins, the head of Bellingcat, they meticulously cross-referenced each piece of data they bought or found online with names, dates of birth, license plates, passport numbers, and other information to verify it was accurate.¹³

Bellingcat maintains a semiprivate chat network on Slack, where Higgins says, there was “lots of debate and discussion as they realized how much [data] they could get.”¹⁴ Higgins said that when weighing the ethics of purchasing data from brokers in Russia, he felt it was acceptable because of the “scale and scope” of the case. In fact, he felt it might have been unethical not to use it because of the potential to stop future political assassinations.¹⁵ He also said this and other high-profile cases caused Bellingcat to really professionalize its work and scale up in size. It has adopted internal supervisory reviews like media organizations and has joined the Dutch press association. Going a step further, Bellingcat is now working on meeting an OSINT standard that could make its work admissible in court. At the time of print German courts are accepting OSINT analysts as expert witnesses.

¹¹ For more on their analysis: <https://www.bellingcat.com/news/uk-and-europe/2020/12/14/fsb-team-of-chemical-weapon-experts-implicated-in-alexey-navalny-novichok-poisoning/>.

¹² See: <https://www.bellingcat.com/news/uk-and-europe/2020/12/14/fsb-team-of-chemical-weapon-experts-implicated-in-alexey-navalny-novichok-poisoning/>.

¹³ To see Bellingcat’s methodology: <https://www.bellingcat.com/resources/2020/12/14/navalny-fsb-methodology>.

¹⁴ Interview with author.

¹⁵ Interview with author.

EXERCISES

Buying Data on the Dark Web

Step 1: Identify the Dilemma(s)

Eliot Higgins knew that buying data on the dark web was ethically gray, but he felt it was worth it to stop future political assassinations.

List the pros and cons of buying data on the dark web.

Pro

Con

If you think purchasing data on the dark web is acceptable, what kind of data is OK to buy and what kind is not?

OK

Not OK

Step 2: Get All the Facts

If you were thinking about purchasing data from the dark web, what kind of facts would you want to know before making an ethical decision?

Whom or what might you consult to get more facts?

Step 3: Weigh Your Options

This decision's already been made, but pretend you are talking with Eliot Higgins and his team in the fall of 2020. Consider the following:

- What kind of data is being purchased?
- Who is the seller, broker, and/or other intermediary?
- How might the proceeds of the purchase be used?
- Who are the other buyers?
- How can you be sure the data is authentic? (Don't forget the method above)

Apply the Markkula Center for Applied Ethics's approach to the situation. You can choose one approach or several, or even rank the approaches to help you make a decision.

✧ **Utilitarian Approach:** Which option will produce the most good and do the least harm?

✧ **Rights Approach:** Which option best respects the rights of all who have a stake?

✧ **Justice Approach:** Which option treats people equally or proportionally?

✧ **Common Good Approach:** Which option best serves the community as a whole, not just some members?

✧ **Virtue Approach:** Which option leads me to act as the sort of person I want to be?

Which approaches did you find the most helpful and why? Which did you skip and why?

Step 4: Test Your Decision with Peers or Imagine a Hypothetical

Pretend you are writing a policy for yourself or your organization. What might you include?

Explain your plan to your boss or a senior colleague below.


Step 5: Act, Learn, Evolve


Based on your decision above, how might you implement it most effectively? Consider ethical and legal factors for your jurisdiction. Consider how employees will know the rules and how to enforce the decision.

What are your contingency plans?

Final Thoughts

All the names, places, and techniques in this case study are real! Thanks to Bellingcat for sharing its thinking on its ethical and technical processes.

 Remember that ethical and legal decisions are different. The author is not expert enough to judge the legality of Bellingcat's decision to purchase stolen or leaked data from the dark web. Keep in mind that laws for the buyer and the seller may be different based on their jurisdictions. For those in the United States, the US Department of Justice has provided a memo on the subject.¹⁶

 Do you or does your organization purchase data? What is the policy on data that is stolen or leaked regardless or whether it was purchased?

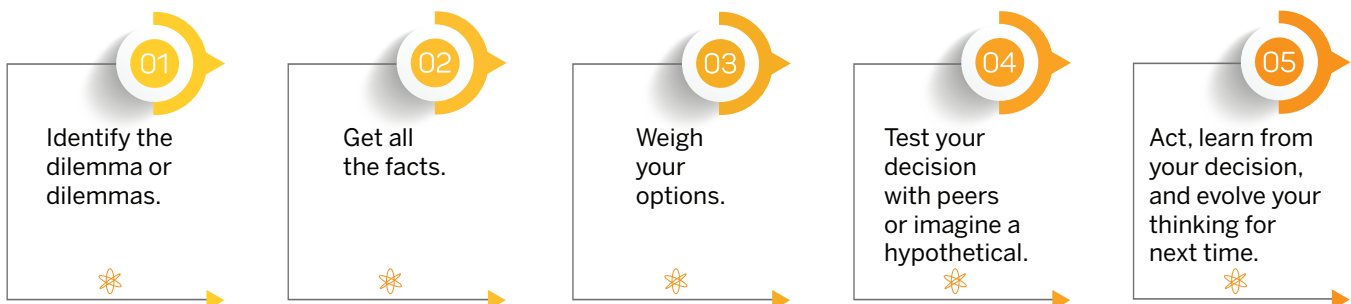
¹⁶ See: <https://www.justice.gov/criminal-ccips/page/file/1252341/download>.

Annex

Six Ethical Approaches



Markkula Framework's Five Steps When Facing an Ethical Dilemma



Slide Decks

Located at stnl.cr/osint.

Thanks and Recognition

The author wishes to thank the Stanley Center for Peace and Security for taking a leadership role in the ethical use of OSINT data. The center is helpful to OSINT analysts across the field, and it has taken an innovative and inclusive approach that helps OSINT attain new levels of professionalism.

The author also extends thanks to the OSINT analysts who were willing to be interviewed for this project, many of whom wish to remain anonymous. From March 15 to April 9, 2021, the author interviewed 25 OSINT experts using video chat.

Seventy-six percent of respondents (19 people) said they faced an ethical dilemma during OSINT research. Only two individuals said they never faced an ethical dilemma; the remainder were not sure. Among the greatest concerns by analysts were ethical issues around privacy and doing harm to bystanders.

Those who managed OSINT analysts occasionally expressed a concern that they were asking employees or volunteers to expose themselves to harmful content during open-source analysis. Violent images and videos, extremist and hate speech, and government propaganda were all cited as examples of “harmful content” by interviewees. Managers were also concerned about their employees’ safety and security when using online social media accounts in their own names.

When faced with a dilemma, 64 percent of respondents said they consulted with a peer within their work group, 52 percent consulted with a supervisor or leader, and 44 percent consulted with someone outside their work group. The number one reason for not consulting with someone was the sensitivity of the subject matter.

Five analysts had official written ethical guidance from their workplaces, which were mostly, though not exclusively, universities. The Berkeley Protocol was cited as the most frequently consulted publication on OSINT ethics, and the Stanley Center’s Gray Spectrum report came in second. Some analysts cited their background in journalism, law, or philosophy as their main resource for handling ethical dilemmas.

“Relativity applies
to physics, not
ethics.”

—Albert Einstein

The number one requested resource was additional ethical guidance, followed by voluntary codes of conduct. However, many analysts were concerned that others in the field would not follow the guidance. Several freelancers argued that any form of regulation would disproportionately affect small or solo operators in the field. Some analysts are already preparing for OSINT to become a regular part of legal investigations, for which any open source evidence must meet the standards of courts in their jurisdiction. For

example, Bellingcat participated in a mock trial to test evidentiary requirements for court cases. It has cases pending rather may answer whether OSINT can be admissible in court. Less than a third of respondents were interested in joining a guild or association that provided accreditation.

Finally, the author thanks her husband, who is always up to debate ethics or legality—and is often put on the spot to do so. His legal background and good nature made this workbook possible.

About the Author



Melissa Hanham is an independent expert on open source intelligence, incorporating satellite and aerial imagery, and other remote sensing data, large data sets, social media, 3D modeling, and GIS mapping. She is particularly focused on the monitoring and verification of international arms control agreements using open source evidence. She also uses open source information to study export-control systems and proliferation finance activities.

Hanham is an affiliate of Stanford University's Center for International Security and Cooperation and a member of the board of trustees of BASIC in London. She previously worked as the Deputy Director of Open Nuclear Network and Director of the Datayo Project at One Earth Future Foundation in Vienna; at the Middlebury Institute of International Studies in Monterey, California; and at the International Crisis Group in Seoul and Beijing. She holds a BA in International Affairs from the Johns Hopkins University and a master of international affairs from Columbia University's School of International and Public Affairs.



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