

Open Source Intelligence and Cultural Property Crimes

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Abstract

There is a vast dark market focused on the antiquities trade, the main character of which, when compared to other illicit businesses, is its capacity to intermix with the legal market. This makes it more difficult to investigate. We must also add to this the fact that digital tools have changed our way of life and the manner in which business is conducted, and people undertaking criminal activities have not been left out of this. In this regard, law enforcement agencies need to develop scientific knowledge and IT capacities, in cooperation with academics and society, in order to face the continuous challenges in this field. Open Source Intelligence (OSINT) techniques are some of the most valuable tools in this regard, such as carrying out provenance investigations, which are crucial to identifying and proving the illicit origin of any object. This presentation aims to provide a succinct overview of the issue to foster the development of new academic research and investigations within the field.

Keywords: OSINT, cultural property, heritage, illicit trafficking, law enforcement, training.

Introduction

The illicit trafficking of cultural goods is currently one of the most prominent markets in the world, and thus the considerable volume of police operations fighting the trade has not declined. We are going to give a very brief introduction to the main characteristics which make this market “special”, in comparison with other illegal markets, and point out some of the causes behind why this trade has endured for centuries, and, finally, expose how OSINT techniques can help law enforcement agencies to fight against it.

Main characteristics of the illicit trade of cultural objects

Cultural property is a crucial part of the identity of any state and a sector with significant economic value. So, protecting it from criminals seeking economic benefits, or any attack in which the objective would be to damage the very identity of a people (e.g., armed conflicts or terrorist attacks), is an essential duty of law enforcement agencies.

International legislation, and subsequently, national legislation, started trying to establish control of the cultural goods market in 1970. The 1970 Convention

on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property, together with the 1995 UNIDROIT Convention on Stolen or Illegally Exported Cultural Objects are the primary international regulations regarding this issue¹. As a result of this legislation, specialised units of law enforcement agents were established, and nowadays, there is an international network between different countries working against the illicit trafficking of cultural goods, hand in hand with Europol, Interpol, the World Customs Organisation (WCO) and the United Nations Office on Drugs and Crime (UNODC).

Besides that, an enormous quantity of objects is seized every year, and the number of people arrested or investigated is not decreasing, as we can see in international police operations like Pandora². In 2017, according to the statistics reporting the operation³, 41,000 cultural objects were seized and 53 people were arrested through 200 investigations spanning 81 countries, which ran from October to December. We can see similar data every year, and how the importance of the online market is growing. In fact, for Operation Pandora 2021, the online market was an important objective, and a cyber patrol week was organised to focus efforts on the internet trade.

Currently, we see an elevated level of international concern regarding the illicit trade of cultural objects, and at the same time, we can see how that trade not only persists, but even thrives, and continues with its negative impact on society. Furthermore, other forms of crime, such as tax evasion and money laundering, are usually linked with it.

The prime reason for this is likely to be the conjunction of characteristics that make this illegal trade different from other illegal trades. The transnational nature of the illicit traffic in antiquities is what makes it possible, as with other illegal markets, but perhaps the most characteristic element of this particular market is the

way it makes use of the great variety of heterogeneous national state laws, making it relatively easy to introduce illegal objects into the legal market (Alder & Polk, 2007), thus succeeding in uniting the two markets, the legal and the illegal, creating what some authors have called a “grey market” (McKenzie et al., 2020).

What we find is a market for which an intricate network of collaboration is used, employing highly variable methods and structures (Campbell, 2013; McKenzie, 2014). The trade is established as a network which functions in a similar way to other illegal trades. It is very closed, and the participants continuously vary their roles and components, as other modern criminal groups do. They are comprised of “fluid network structures rather than more formal hierarchies”, an organisational structure that is particularly well suited to trafficking (Campbell, 2013).

All this together entails a complex transfer of objects, resulting in the mixing of cultural goods with very diverse origins, making them extremely difficult to trace. On top of this difficulty, we need to also bear in mind other related laws, aside from those regarding the import and export of cultural heritage goods⁴.

Consequently, investigators and researchers must face too many limitations in their work. We do not have, for example, reliable data regarding the scope of the market and a very poor understanding of how the trade is actually organised and operates. On the other hand, we do know that the dark figure of crime is very high in this sector.

One example of our lack of knowledge regarding this data is the frequently repeated claim, not only by media outlets, but even by academics, which states that: *“the trade of cultural objects is valued at billions of dollars annually and ranks with drugs and arms as one of the three most serious illicit trades”*. This claim has been refuted many times, but never seems to go away (Brodie, et al., 2022).

1 We should also bear in mind the 1954 Hague Convention for the Protection of Cultural Property in the Event of Armed Conflict and the Council of Europe's 2017 Nicosia Convention on Offences relating to Cultural Property, as well as the European regulation regarding the export of cultural goods (Council Regulation (EC) No. 116/2009) and regarding the introduction and import of cultural goods into the Union (Regulation of the European Parliament and of the Council (EU) No. 2019/880).

2 Operation Pandora is the name of a joint pan-European operation of law enforcement authorities, along with Europol, Interpol, UNESCO and the WCO against the theft and illicit trafficking of cultural goods. The operation is repeated every year.

3 <https://www.interpol.int/fr/Actualites-et-evenements/Actualites/2018/Over-41-000-artefacts-seized-in-global-operation-targeting-trafficking-of-cultural-goods>

4 There is a significant volume of potentially related crimes: receiving, looting, concealment, counterfeiting, fraud, money laundering or organised crime (European Commission, 2019). Today, any action against money laundering (Teichmann, 2019), terrorism financing or tax fraud must be implemented alongside measures to prevent the trafficking of cultural goods (UNESCO, 2018).

Another similar claim is that Da'esh has been financing its activities through antiquities trafficking, which is alleged to have been making the group tens, or even hundreds of millions of dollars, figures which, again, have been impossible to verify (Brodie, et al., 2022).

The damage caused by this activity is substantial. Aside from the loss of scientific knowledge⁵, the illicit trafficking of antiquities can be viewed as:

- A political and cultural challenge to the sovereignty of the source countries (Mackenzie & Yates, 2016; McKenzie et al., 2020).
- A direct threat to religious identities, e.g., through iconoclastic destruction (Isakhan & González, 2018).
- A missed opportunity for society after an armed conflict or catastrophe (Viejo-Rose, 2013).

Taken together, these factors result in a great impact on economic and social systems (TRACID, 2019). It should also be borne in mind that cultural objects are a unique testimony to the evolution and identity of peoples and that the importance of protecting them takes on greater significance because they are irreplaceable. They are a vital educational resource that reveal the rich and complex story of humanity, comprised of many peoples, ideas, and faiths (Rufián, 2021).

OSINT as a source of intelligence.

Open-Source Intelligence is defined as intelligence produced using data accessed from public sources, which is subsequently processed by the intelligence cycle in order to gain insights (Böhm & Lolagar, 2021). We understand open sources to be those documentary resources that are within the public domain, in any medium, format and means of access (Felip i Sardà, 2004; Martín de Santos & Martín Vega, 2010).

On the other hand, the intelligence cycle consists of well-defined phases, through which a final product is obtained, a cycle that is designed to provide answers. To better explain this, we are going to follow one of the universal models of intelligence cycles, specifically the one used by the Spanish National Intelligence Centre (CNI, 2022), which consists of five phases:

- Direction phase: This is the phase in which the organisation determines the intelligence needs that are required.
- Planning phase: In this phase, the resources and methods for obtaining information are planned and organised.
- Collection phase: All relevant information is gathered and organised. OSINT is one of the disciplines in this phase.
- Processing phase: When all the information collected is processed, the final intelligence product is created through assessment, examination, integration, interpretation and drafting.
- Dissemination phase: This is the final phase of the cycle, when the intelligence is distributed to its intended recipients.

Although we have seen OSINT as a part of the intelligence cycle, since its inception in the 1940s up to the present, it has been configured as an autonomous discipline. This is due to the need to adopt a new approach to intelligence, derived from the universalisation of information and communication technologies.

The current context of hyperconnectivity favours the existence of a large amount of data flows available on the internet. The human need for communication is now widely covered and amplified through the use of internet platforms. We are now facing the paradox that individuals and organisations dump their information on the internet, and it is its processing that is now more complex than its storage. This, coupled with the fact that specific tools are being developed to automate processes and compile data, allows analysts to create intelligence products at little cost to agencies. The real cost is the need to train analysts to adapt to this new environment.

On the other hand, this data flow context means that internet users themselves are grouping into what we could call digital neighbourhoods and that social customs are evolving. This gives rise to new globalised models of communication and business, but also crime. In order to gather information through OSINT techniques, understanding globalisation and its effect on the determination of certain social networks or communication channels is essential.

The information gathering opportunities provided by both Big Data and OSINT have been learnt by a large

⁵ The indiscriminate excavation of archaeological sites, without regard for archaeological recording methodology, causes irreparable loss of scientific knowledge regarding the society and culture which created the objects (Brodie et al., 2000; Rodríguez, 2012; Renfrew & Bahn, 1991; McKenzie et al., 2020).

number of private sector organisations. Large corporations have their own corporate intelligence services that rely on open sources for intelligence and counter-intelligence activities.

There is an opportunity within the public sector for law enforcement agencies to fulfil their mission effectively by tapping into the flood of information flowing beyond closed databases. In this respect, OSINT focussed on organised property crime has been identified as a priority training need in the 'European Union Strategic Training Needs Assessment 2022-2025' (CEPOL, 2021). For this purpose, it would be desirable to train members of Law Enforcement both in the use of open source tools and in information analysis skills.

What OSINT can provide in the illicit trade of cultural objects

The Internet has created essential changes in the market, allowing new buyers and sellers to participate, with low-cost objects, and reaching more people (McKenzie et al., 2020). Social networks are also playing a significant role in the illicit trade (Sargent et al., 2020). Researchers have documented a substantial boost in recent years, especially during the Coronavirus crisis, when border closures have turned the Internet into a safer way to sell and buy antiquities. On the other hand, the marketing of illegal antiquities on a social platform, like Facebook, for example, represents a curious middle ground for regulation⁶ (Votey, 2022), which makes it difficult for Law Enforcement to work and easy for the traders.

In that context, we need all actors involved in mitigating the illicit trafficking of cultural property to be well-prepared. Any loss of time only serves to favour the smugglers, while undermining cultural heritage, science and hope (UNESCO, 2018). The amount of information available online can be overwhelming, and the lack of expert knowledge can cause potential damage and lead to false beliefs (Yeboah-Ofori & Brimicombe, 2017).

The case study presented as proof of concept aims to provide another perspective on cultural heritage research within the context of law enforcement. It was carried out using entirely open source techniques in

order to demonstrate their usefulness and the investigative capacity they offer, from the basics to more complex organisational structures.

After the direction phase, in which the need for knowledge about the looting of historical heritage in Ukraine using metal detectors was identified, the planning phase was established. First of all, contact was made with the target group. The aim was to understand what mechanisms drive and enable the trafficking of historical objects by individuals, as well as the channels that are chosen for their publicity and marketing. It was possible to determine that looting using metal detectors is a socially accepted practice, used as an element of exaltation of cultural heritage.

Using Google's online translator, searches were performed on the two main social networks that were determined to be the core networks for this research: Facebook and VKontakte. It was decided to work on these social networks because, as proof of concept to be developed in a summarised way, both have similar characteristics and are widely used within the geographical area where the research was carried out.

Facebook is one of the most popular social networks worldwide, with more than 2.8 billion users and VKontakte is a similar social network with more than 600 million users, which is widely used within the Russian sphere of influence.

The collection phase began with the identification of various user groups on the internet, dedicated to the recreational use of metal detectors. These were located in the communities of the Facebook social network.

Analysing the content of the messages and photographs of these groups, several items were found to bear the hallmarks of having been looted.

There were posts concerning ancient coins, pendants, medieval helmets and weapons, in which users asked about their possible sale price. In some cases, they even gave an estimate of the historical period to which they belonged.

This made it easier to target the investigation to specific individuals, specifically, the profiles of the users who posted these messages, as well as the relevant profiles

⁶ In this regard, the ATHAR project, an initiative led by anthropologists and heritage experts digging into the digital underworld of transnational trafficking, terrorism financing and organised crime, has shown how difficult it is to deal with this kind of platform in their 2019 report called "Facebook's black market in antiquities". The report is available here: <http://atharproject.org/report2019/>

that interacted with them. After extracting the unique IDs of each profile and storing them, information about the profile holders was obtained.

Unique ID numbers correspond to each existing profile on a social network and enable it to subsequently be traced, even if its user name is changed. This number can be extracted from the URL by a calculation using various tools. From the basic publicly available information obtained from each profile, attention was turned to the VKontakte network to expand upon it and in some cases they were geolocated through the profile pictures.

For storage, the open source resource “archive.today” was used. Through this non-commercial service, a copy of any web page can be saved.

Subsequently, an open source tool called Eriys/SellerFB was used. This tool is publicly available on the Github platform in the repository of the user Eriys and allows the activity of a Facebook account on Facebook Marketplace to be known (Eriys Github repository 2022). SellerFB extracts the seller’s profile information, as well as the items the seller has sold. It also returns information on the unique identifier of the Facebook Marketplace seller, the locations associated with that seller, the groups in which offers have been posted and the seller’s rating. In this way, it was possible to correlate objects that had been displayed in metal detector user groups with transactions made on Facebook Marketplace, and these in turn could be correlated with the unique identifiers of Facebook and Facebook Marketplace accounts.

If necessary, based on the information obtained so far, the focus of the research could have been shifted to

other social networks in order to expand it. Emulated geo-positioning techniques could have been used in order to locate profiles of certain social networks in physical locations, for example.

Conclusion

In conclusion, starting from a need to obtain information, it has been possible to obtain a large amount of accurate information collected entirely through open sources.

Firstly, a large number of individuals gather through communities on social networks, share and trade looted cultural property. For each of these individuals of interest to the investigation, it has been possible to obtain sufficient data to locate them physically. It has also been possible to identify individuals who have used Facebook Marketplace to carry out transactions with allegedly looted cultural objects. Next, it has been possible to obtain graphic evidence of a catalogue of items that, if necessary, could be used as evidence of the traceability of the origin of certain pieces, within the context of an official investigation.

Finally, through the interactions and study of the follow-ups carried out on certain user communities or sales pages, a large amount of identifying data can be obtained from them, and the scope of the research can be broadened.

From the public data obtained from these shops, it is possible to extract a great amount of information, and thus establish links between individuals and points of sale.

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