The Kronos Incident: A Kidnapping and Historical Analysis

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ABSTRACT

It is January 20, 2014 and employees at GasTech are missing - possibly abducted. The Protector of Kronos (POK) organization is suspected in the kidnapping. Latent Dirichlet Allocation, Named Entity Recognition, and network graphs are the forensic analysis tools utilized to inform law enforcement. Two explanations were presented based on company emails, published articles, and corporate structure datasets.

INTRODUCTION

In January 2014, the leaders of GAStech celebrated the initial public offering (IPO) of their very successful company. An initial public offering happens when shares of a company can be traded freely in the open market via a stock exchange. During this celebration, several employees of GAStech went missing. An organization known as the Protectors of Kronos (POK) is the chief suspect in the disappearance. However, in the business world, things may not be what they seem.

The objective of this project is to inform law enforcement about the current organization of the POK: the structure of the organization, how it has changed over time, and the events surrounding the disappearance of GAStech employees. Resources include a set of current and historical news reports, resumes of numerous GAStech employees, and email headers from two weeks of internal GAStech company emails.

The data scientist seeks to answer three key questions for this investigation: (1) What is the structure of the Protection of the Kronos network? (2) What is the timeline of events? (3) What are the potential explanations of the missing GAStech employees? The formal briefing to law enforcement will include a description of the data, an explanation of the methodology applied to develop solutions, results in the form of responses to the three critical questions, a discussion of the results, conclusions drawn in the case, and a projection of next steps.

RESEARCH QUESTIONS

The research questions involved in the historical analysis of the GAStech kidnappings were as follows:

- 1. Provide a clear analysis of the structure of the Protectors of Kronos network, with supporting evidence.
 - a. Who are the leaders?
 - b. Who is part of the extended network?
 - c. How has the group structure and organization changed over time?
 - d. Where are the potential connections between the POK and GAStech?
- 2. Describe the events of January 20-21, 2014. What are the events? What is the timeline of events?

3. Provide at least two possible explanations why the GAStech employees may be missing. What evidence do you have to support each of these explanations?

DATA DESCRIPTION

The data provided consists of a collection of text-based files. These files were verified for accuracy by data scientists at the University of Denver and pertain to the kidnapping of the GASTech employees allegedly by members of the social movement group POK. The following data are available:

- A map of Kronos
- A chart describing the local GAStech organization, in PDF format.
- A spreadsheet of GAStech employee records, in Microsoft Excel format. The primary worksheet contains the data; the index worksheet contains the data dictionary
- Email headers from two weeks of internal GAStech company email, in comma-separated values (CSV) format
- Resumes and short biographies of many, (but not all), of the GAStech employees, in Microsoft Word format
- Historical reports and descriptions of the countries involved, in Microsoft Word format
- Relevant current and historical news reports from multiple domestic and translated foreign sources, in text file format. Because these articles have come from multiple sources and original formats. Some of the articles may contain corrupted characters, which is typical for this type of data.

METHODOLOGY

In order to answer the three research questions, the analysis followed three steps: (1) manual review of the historical documents and Kronos/Tethys factbooks, (2) analysis of article text data, and (3) analysis of internal GASTech email header data.

Historical Document Analysis

The two historical documents ("The Application and Validation of a Social Movement Model in Understanding the Evolution and State of One Grassroots Social Movement in Kronos: Protectors of Kronos" and "History of the Protectors of Kronos") were first reviewed manually to determine the basic chronology of events of the Protectors of Kronos (POK) up until 2009. 2009 is the most recent year that these historical documents account for. These documents as well as the Kronos and Tethys factbook documents serve as a foundational overview of the sociopolitical climate of the Kronos and Tethys regions and basic chronology of the first ten years of the POK.

Article Data Analysis

After the initial consideration of the historical and regional factbook documents, an analysis was performed of the article data to determine the events of the POK between 2009-2014. There were 845 total articles collected; they were published between 1982 and 2014. Each article text file was read in Python and parsed out the following fields: ID#, publication name, article title, article author, date of publication, and article body text. The articles were then sorted from oldest to newest publication date. Figure 1 shows the distribution of all articles published from 1982 to 2014. The bulk of articles published in this time period were near the dates of the events, January 20-21, 2014. Figure 2 shows a word cloud of most frequently occurring words in the articles.

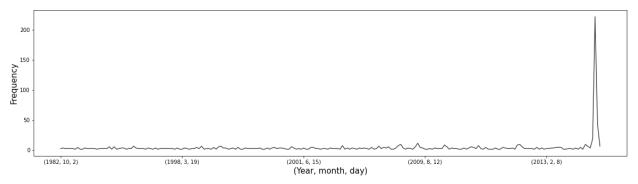


Figure 1: Frequency of Articles Published between 1982 and 2014



Figure 2: Most Commonly Used Words Present in Article Data

Latent Dirichlet Allocation (LDA) was implemented to provide an overview and categorization of the kinds of articles present in the data. LDA is a machine learning model that generates grouped topics based on commonly used terms within a body of documents, in this case news articles. Stop words and punctuation was removed from the article body text, all words were converted to lowercase, bigrams were created of most commonly-used words in the text, and words were lemmatized to only include the root words of nouns, adjectives, verbs and adverbs to create a corpus of commonly used terms between all articles. Five topics were selected for the LDA model, which was implemented with the gensim package in Python, and pyLDAvis was used to visualize the topics. The topics generated by the LDA model are displayed in Table I. The model perplexity was approximately -7.36, and the model coherence score was approximately 0.41. These topics helped provide a better idea of the article subject matter.

This article analysis was an interactive process consisting of (a) searching through article body data for keywords of interest, (b) filtering the data based on those selected keywords, (c) manually reviewing the data to summarize the events leading to the GAStech kidnappings, (d) discovering new keywords of interest, and (e) repeating the process. An initial search keywords of interest were used: "Henk Bodrogi",

"Elian Karel", "Silvia Marek", "Mandor Vann", "Isia Vann", "Lucio Jakab", "Lorenzo Di Stefano", "POK", "GAStech". The number of results of articles found under each keyword are shown in Figure 3.

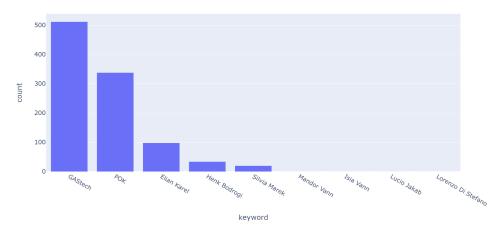


Figure 3: Article Keyword Search Counts

Articles grouped under the "POK" keyword were additionally grouped with articles categorized under the phrase "Protectors of Kronos". Articles grouped under the "POK" and "GAStech" categories were labeled with additional names discovered in the documents by employing the use of Named Entity Recognition (NER), a natural language processing (NLP) technique which deals with identifying and classifying people, places, organizations, times, objects, or geographic entities. NER was implemented using Spacy, an open-source Natural Language Processing library in Python. The names obtained were programmatically checked against the names in the GAStech employee records' Excel spreadsheet to identify noteworthy GAStech employees who may have a connection to the POK. The top 50 names found within the GAStech and POK article subsets are displayed in Figure 4.

GAStech Email Header Data Analysis

The email headers comma-separated values (CSV) file included a bulk of internal emails from GAStech between January 6 2014 and January 17 2014 – just days before the events of January 20-21. The fields associated with the email data were From, To, Date, and Subject. The from column contained the email address from which a given email was sent, and the To column contained a list of email addresses to which a given email was sent. The email header data contained 1170 observations. Figure 5 shows the frequency of emails sent between January 6th and January 17th, which followed a similar distribution each day. Figure 6 shows the distribution of GAStech employee citizenship.

In order to more easily analyze the email header data, the From and To columns were first converted to the full names of the employees with those email addresses using the Employee Records data. Next, the email header data was converted to a network graph data structure using the Python NetworkX package. Specific GAStech employees were queried using the network graph data structure to look for unusual observations or discrepancies in communication patterns. An analysis of the graph structure of the email header data was performed to search for notable emails, especially pertaining to POK and POK members.

TABLE I. LDA Model Topics

| Topic # | Inferred Topic Name | Top Ten Terms | Top Ten Terms weight |
|---------|---|---|--|
| 1 | Arrest/Protests associated with Elias Karel | pok police government karel force protest arrest crowd kronos krono | 0.028 0.028 0.022 0.019 0.019 0.014 0.011 0.009 0.009 0.009 |
| 2 | Kronos Government | krono kronos government president foreign people clean today announce recent | 0.036 0.022 0.020 0.015 0.011 0.011 0.010 0.010 0.008 0.008 |
| 3 | Elias Karel Death | ceo year family death die say force krono leader organization | 0.020 0.018 0.017 0.017 0.015 0.015 0.013 0.013 0.012 0.010 |
| 4 | GAStech / Tethys Government Drug Involvement | work foreign company drug gas say much tethy year country | 0.014 0.013 0.012 0.012 0.012 0.009 0.009 0.008 0.008 0.008 |
| 5 | GAStech Kidnappings | gastech employee police government krono abila kidnapping sanjorge group elodis | 0.029 0.019 0.014 0.013 0.013 0.011 0.011 0.010 0.010 0.009 |

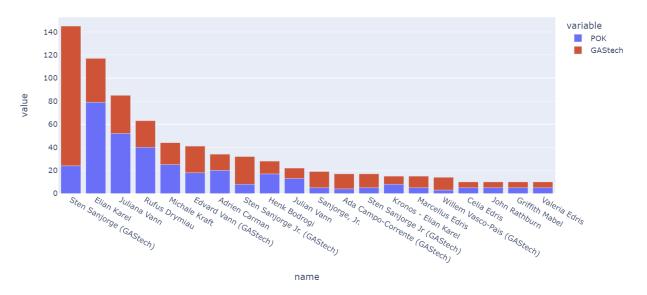


Figure 4: Top 20 POK/GAStech Named Entity Recognition (NER) Results

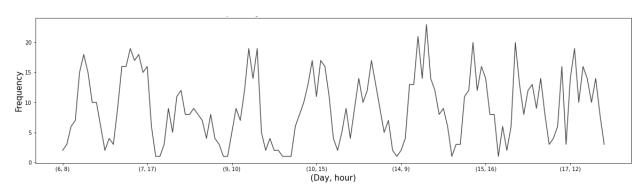


Figure 5: Frequency of GASTech Internal Emails sent between January 6-17, 2014

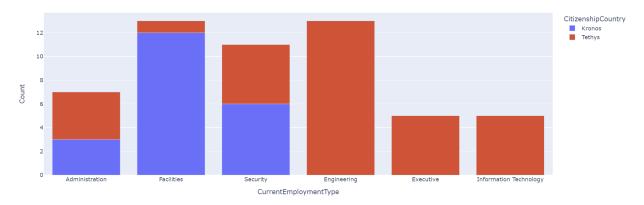


Figure 6: GAStech Employee Citizenship Distribution

RESULTS

The results section contains detailed answers supported by evidence to the three research questions: (1) What is the structure of the Protectors of the Kronos network? (2) What is the timeline of events? (3) What are the potential explanations of the missing GAStech employees?

Research Question 1: Analysis of POK Structure

A. Who are the leaders?

The current leader of the POK is Silvia Marek, a co-founder of the Save Our Wildlands organization who joined the POK in 2005 and replaced Elian Karel as the main spokesperson of the group after his death in 2009. She believes in persistent and peaceful protest, though it is clear that her leadership has not been effective in containing the violence and criminal activities of the POK.

B. Who is part of the extended network?

Members of the POK in 2009 who may still be involved in the POK directly in 2014 include the following individuals:

- Lucio Jakab also a member and co-founder of Save Our Wildlands, an activist who believes
 habitat of wildlife unique to Kronos is imperiled by drilling, logging, pollution, media
 communications professional, responsible for many handbills, signs, banners, and slogans used
 by POK.
- Mandor Vann ex Kronos military service since 2004 and uncle to Isia and Juliana Vann. POK's top political strategist, linguist, described as intense, intelligent, organized, ambitious.
- Isia Vann the older brother of Julianna Vann, one of several POK members who advocate for a
 more forceful approach to gaining attention. He has been arrested several times for civil
 disobedience, trespassing during POK rallies. Also a member of the GAStech corporation, as a
 security guard (GAStech employee records CSV).
- Lorenzo Di Stefano professor of environmental science at University of Abila, author of several scientific articles on environmental contamination associated with Hyper Acidic Substrate Removal (HASR)

These individuals were referenced in the historical documents, and make no appearances within the historical context of the articles themselves. Given their absence from mentions in the public press it is possible that the group organizational structure is either kept well hidden or, more likely, largely unstructured and anarchistic.

Mestache Vardshvna is also mentioned as a POK demonstrator, mentioned in Article 33, 753 and 55, having been present in a protest on September 7th, 2012.

C. How has the group structure and organization changed over time?

To better understand the POK organizational structure, it was helpful to lay out the chronology of the POK between 1997-2014. The events between 1997-2009 are largely covered in the historical documents, while the development of the POK from 2009 onward is referenced throughout the various published text articles. A map of Kronos is available in Appendix A; a brief background on the countries of Kronos and Tethys is available in Appendix B.

POK Historical Overview 1997 - 2001

The POK began in 1997 as a small grassroots organization of seven citizens from Elodis, Kronos, a rural agricultural town of roughly 6500 people about 25 km from the capital city Abila. The organization was concerned about contamination from drilling at the Tiskele Bend gas fields. The founding members, led by Henk Bodrogi, included:

- Henk Bodrogi, floodplain farmer, served in Kronos military Initial leader of POK from 1997-October 2001
- Carmine Osvaldo, served in Kronos military with Henk, served on board of Chamber of Commerce
- Jeroen Karel, recruiter and personnel organizer for POK
- Ale L. Hanne
- Valentine Mies
- Yanick Cato
- Joreto Katell

In 1998, contamination results were published by the Wellness for All (WFA) agency in international health organization conferences. Elevated levels of chemicals associated with Hyper Acidic Substrate Removal were found when testing the Elodis water, which included benzene, toluene and xylene arsenic, barium, chromium, lead and selenium. Additionally that year, ten-year old child Juliana Vann died of leukemia associated with benzene toxicity. Her death was used as a rallying point in the POK movement in the decade that followed, including an iconic image of her smiling over a daisy, and the rallying chant "Remember Juliana". Both of these events contributed to an increase in interest in the POK and its membership.

In 1999, the POK relocated to Abila, the capital of Kronos, and began staging a series of public rallies in support of its movement. Activities included sponsorship of a tax bill on oil and gas development by Cesare Nespola, the Minister of Health of Kronos, which was voted down in the General Assembly of Kronos in March 2001. Following the bill, Minister Nespola died suddenly in June 2001 and was replaced by Vincent Kapelou, the 28-year-old nephew of President Kapelou of Kronos, who refused to re-introduce the tax bill to the General Assembly.

Henk Bodrogi stepped down as the leader of the POK due to health problems associated with the Tiskele River contamination. In October 2001 leadership passed to Elian Karel, a young charismatic man. Elian was the son of Jeroen Karel, one of the founding members of the POK. When Bodrogi stepped down, all of the other original members of the group also quit and returned to Elodis.

POK Historical Overview 2001 - 2009

Elian Karel's core team was composed of Silvia Marek, Lucio Jakab, Mandor Vann, Isia Vann, and Lorenzo Di Stefano. According to the historical documents, "Karel staged numerous peaceful environmental rallies and spent considerable energy working the crowds. When not planning or working the rallies, Karel spent his time meeting with many of the social and environmental activist groups in the capital city. He proved to be a persuasive recruiter and many small activist groups joined forces with the POK." Karel became an essential public figurehead to the POK movement during his time as its leader.

In 2005, the Tiskele River caught fire, and the tone of the POK shifted dramatically, where the POK has continued to allege that government corruption and possible collusion has been responsible for little to no oversight of gas and oil field operations.

POK Historical Overview 2009 - Onward

On February 18, 2009, dozens of protestors associated with a POK rally in front of the GAStech regional headquarters in Abila were arrested for trespassing (Article 837). On March 3, 2009, thousands of protestors rallied in front of the Kronos government offices. They demanded an accounting of government revenues from previous president Araullo's tax incentives signed into law in 1993. Elian Karel addressed the demonstrators with a speech at the Abila City Park (Article 743).

After the massive protest, Elian Karel was imprisoned on March 12, 2009 on charges of tax evasion. From Article 451: "Kronos police arrested Elian Karel today on charges of tax evasion. Karel's lawyer, Michale Kraft, released a statement declaring that the charges against his client were false and that he hoped to have Karel released from police custody by week's end." However, Karel was not released from police custody. Instead he died under mysterious circumstances while in prison on June 19, 2009. Following his death, a protest on June 21, 2009 resulted in broken windows and vandalized shops in the streets of Abila (Article 20). Karel's death effectively resulted in him becoming the second martyr of the POK movement after Juliana Vann. Vann's date of death was used in a recurring pattern for POK's annual protest rally (Article 73, Article 18).

Following Karel's death, Silvia Marek assumed leadership of the POK (Article 454). According to the historical research documents, Marek was "a charismatic speaker with a passion for environmental awareness and the vegan lifestyle, [who believed] persistent, peaceful protest would eventually gain the POK the necessary political influence to finally address the environmental contamination stemming from years of unrestricted gas drilling at the Tiskele Bend fields." As the POK movement grew and became progressively anarchic in its leanings, it appears Marek was ineffectual at controlling the increasing riots and violent behavior of the POK in the years following Karel's death (Article 508).

On July 27, 2011, the POK were described as "justifiably a public threat due to violent demonstrations, opportunistic vandalism, and clashes with the police" by Kronos Government spokesperson Rufus Drymiau (Article 705). On June 22, 2012, President Kapelou called the POK a "a gang of criminals, thugs, and malcontents" and on June 30, 2013, he declared the POK to be a terrorist group (Article 337, Article 82).

On November 12, 2013, demonstrators in Abila set fire to Kronos government buildings in response to the dismissal of several Kronosian employees from GAStech (Article 506). On December 15, 2013, members of the POK assaulted police patrol officers in Abila and spray painted their logos onto the police car (Article 181). On December 17, President Kapelou announced the formation of a State security anti-terrorist task force (Article 209).

D. Where are the potential connections between the POK and GAStech?

There is one direct connection between the POK and GAStech, Isia Vann. Isia is a member of both organizations, working as a perimeter control security guard as part of GAStech and a key influencer within the POK. He has an especially close tie to the POK because of his sister Julianna Vann. Her death became a political rallying cry for the movement.

Research Question 2: Timeline of Events of January 20-21, 2014

From analyzing the article data, one is able to capture and summarize the events that transpired on January 20 and January 21, 2014. Consider the following scenario:

- 1. On January 20th, the executives Sten Sanjorge, Jr., Ingrid Barranco, Ada Campo-Corrente, Orhan Strum, and Willem Vasco-Pais met at the GAStech office for a corporate meeting (Article 240, Article 481), before departing to meet with Kronos government officials around 10:00 am. At this time, a fire alarm went off in the GAStech headquarters and firemen of Abila went to investigate (Article 107). It is not clear whether a fire actually went off (Article 142). During this time, the kidnapping took place as GAStech employees were in transit between the GAStech headquarters and the Kronos government capitol building (Article 481, Article 107). Edvard Vann, a GAStech employee, was questioned for six hours by authorities after the incident, because of his shared family name with several known POK members (namely, Mandor and Isia Vann) (Article 29).
- 2. On January 21st, fourteen employees were reported to be missing initially, though it could have possibly only been ten according to another reporting (Article 460, Article 583). The POK claimed responsibility for the kidnapping of the missing GAStech employees, and publicly demanded a ransom of 20 million dollars for the release of the president and CEO Sten Sanjorge, Jr. (Article 536). However, Sanjorge Jr. was reported to have returned safely to Tethys (Article 556, Article 536).

Research Question 3: Explanations of Missing GAStech Employees

Two hypotheses are provided below in an attempt to explain what happened to the missing GAStech employees. The explanations are ordered from greatest to least likelihood.

Explanation 1: Internal Security Email Hijacking

The email chain "Security Procedures for January 20 visit" was sent by Edvard Vann to Kanon Herrero, Minke Mies, Hennie Osvaldo, Inga Ferro, and Felix Resumir of the Security team on January 9th, 2014. On January 14, 2014, an email with the exact same header was sent by Loreto Bodrogi to Hideki Cocinaro, Varja Lagos, and Isia Vann, also on the security team. These three recipients had a conversation from 8:18 AM to 12:11 PM on that day. It should be noted the response Isia Vann, a noted POK member, sent was one of only four emails Isia ever sent during the period of recorded emails (between January 6-17).

The thread "Seeing strange network activity" may explain how Bodrogi obtained access to the original email chain without having been a recipient. At 10:49 on January 14th, Lucas Alcazar of the Information Technologies (IT) team sent the email "Seeing strange network activity" to his IT colleagues Isak Baza, Nils Calixto, and Sven Flecha. This exchange may indicate that Alcazar noticed that some kind of email manipulation was going on.

At 14:33 PM on January 14th, Linnea Bergen, the manager of the IT team, sent the email "Action: Virus detected on your system" to Inga Ferro, Loreto Bodrogi, Isia Vann, Hennie Osvaldo, Minke Mies, and Ruscella Mies Haber. It may be possible that Loreto Bodrogi was able to hack into their fellow security team's emails and obtain the "Security Procedures" email information that same day and forward the

information to fellow bad actors Isia Vann and Hideki Cocinaro. But what does Ruscella Mies Haber of the Engineering team have to do with this?

This email "ARISE - Inspiration for Defenders of Kronos" was sent from Ruscella Mies Haber, Assistant to Engineering Group Manager, to Inga Ferro, Loreto Bodrogi, Isia Vann, Hennie Osvaldo, and Minke Mies on January 13, 2014, and was circulated among Bodrogi, Ferro, Vann, Osvaldo, and Mies. Note that all five of the later group were also involved in the Security Procedures email chain. It is possible that Haber sent these GAStech security individuals an alert to watch out for possible POK activities, without being aware that some of these individuals could actually be involved with the POK.

Given that Loreto Bodrogi, Isia Vann, Hideki Cocinaro, and Varja Lagos were all part of the security team, it appears that the four of them may have coordinated a plan with the POK to take advantage of the known security protocol for the January 20th executive meeting to both hijack the event and kidnap the GAStech employees. Equally notable is that Bodrogi, Vann, and Cocinaro were all involved in the Kronos or Tethys military; and each has experience in self-defense, defensive driving, hand-to-hand combat, and small arms weapons proficiency according to their resumes, so it is not outside of the realm of possibility that these individuals would have the expertise to execute the abduction.

Explanation 2: External Hacking / Intentional GAStech Staging

The second explanation deals with outliers. There are generally three explanations for outliers: data entry, sampling problems, and natural variation. An outlier should serve to tell the data scientist something unique about a situation. Indeed, an outlier can be the indication of something new that occurred or that may occur in the future. A data analyst should be concerned when large datasets of the sort examined and sampled in this project do not contain outliers as they point to the potential for increased error or biases that may influence estimates. Use of graphical representation through the visualization technique used as part of the methodology was exceptionally helpful in identifying outliers in this project.

There are a few other emails with regard to the Information Technologies team to observe. "GT website under attack" was sent from Lucas Alcazar to Isak Baza on January 9th, 2014. It could suggest that there was an external hack that had nothing to do with an internal source. The following email on the 9th, "Security patches needed", sent from Nils Calixto to Lucas Alcazar, may be related to remediations involving the hacking event the previous day. It is likely that something else was going in a coincidental manner that cannot be confirmed with evidence.

The last event that happened before January 20th was that police officers were assaulted by members of the POK on December 15th, 2013. This is evidence that the POK and associated members were not above causing individual harm to others.

Given the history of drug smuggling between Kronos and Tethys, the kidnapping could have been a cover event, given the speculation of corruption between the government of Kronos and GAStech among the POK (Article 822). There is the possibility that the kidnapping itself was staged by GAStech. Even though POK claimed responsibility for the kidnapping and demanded a 20 million dollar ransom for the release of CEO Sten Sanjorge, Jr., there is evidence that he was never actually kidnapped. Something is inconsistent with what was stated and what occurred. Also, although ten to fourteen employees were reported kidnapped, the only employees mentioned in article news reports were the GAStech executives.

DISCUSSION

Latent Dirichlet Allocation, Named Entity Recognition, and network graphs were the forensic analysis tools utilized to inform law enforcement about the alleged kidnappers - their organizational structure, motives, network, and timeline of activities related to the abductions.

Relationship of Latent Dirichlet Allocation and Named Entity Recognition:

Latent Dirichlet Allocation was essentially used in this project as a method of exploratory analysis, in order to get a better sense of the possible topics grouped by relevant terms that would be involved in uncovering the POK organizational structure and nature of the kidnapping events. Named Entity Recognition was used in a similar capacity for exploratory analysis to determine and extract specific names out of news article data and make the process of manually searching through news articles for relevant narrative information easier, and NER was also implemented in the lemmatization of the LDA method to shorten terms into their root form.

Relationship of Textual Analysis / Visualization Tools and Manual Analysis

When considering the nature of the data involved in this project, namely, that of a large body of textual data, it is simply not enough to methodological tools such as Latent Dirichlet Allocation, Named Entity Recognition, or network graphs alone. These techniques serve to aid and supplement the process of manually analyzing human behavior and devising a credible narrative for an investigative agency by grouping the textual data into relevant subsets and visualizing it in a sensible way. Additionally, these tools and methods help to strengthen the arguments proposed by the manual analysis of the data by providing an indication of correlation between related sets of textual information, particularly in the case of using Latent Dirichlet Allocation in forming topic clusters.

CONCLUDING REMARKS

When dealing with this kind of investigative research problem, regardless of how many analytical data science techniques are applied the primary goal is to establish a narrative of events that can be validated as evidenced by the data itself. Approximtely 50% of my time developing solutions for this project was spent reading through the various articles. The complexities associated with written and implied language are not non-trivial. Communication subtleties demand a perceptive eye, understanding human behavior, and intelligent use of analytical tools and technical processes.

If my future as a data scientist will involve projects of this ilk, then I would put more emphasis on minimizing unnecessary outliers, such as articles and emails that had nothing to do with the topic at hand, as well as articles that had slightly different but more-or-less analogous content. This study was a good exercise in organization of large groups of data to effectively augment the process of categorizing information in a meaningful way. Future work on this particular project might include using what was learned from this historical dataset to be able to respond to other activities/events, such as that captured in the "The Kronos Incident: Geospatial-Temporal Patterns of Life Analysis" and "Return to Kronos" scenarios.

APPENDICES

Appendix A. Map of Kronos



Appendix B: Background on Kronos and Tethys

From Kronos Factbook: "Kronos was variously settled by the peoples of the Levant as far back as the Phoenicians, but avoided attempts at colonization by the British and French. The island's economy has been dominated by three main industries. Agriculture has long dominated the local economy with most Kronisians supporting themselves through small-scale farming. Recently the timber industry has taken off; however, deforestation is a real threat. With the discovery of massive natural gas fields in 1994, the Kronisian economy has been booming. Despite the recent economic boom, many people still face deep poverty...

A transshipment point for heroin and hashish to Europe; despite a strengthening of anti-money-laundering legislation, remains vulnerable to money laundering; corruption is a major concern; reporting of suspicious transactions in offshore sector remains weak."

• Location: Western Europe, bordering the Mediterranean Sea, between France and Italy

Population: 32,975,805 (July 2013 est.)
Unemployment rate: 7.8% (2012 est.)
Population below poverty line: 5.8%

From Tethys Factbook: "Tethys is very modern, economic leader with a large population and a key member of Europe's economic, political, and defense organizations. Additionally, Tethys is a leader of environmental concerns and a party to many environmental treaties. Tethys formerly held minor colonies in Sub-Saharan Africa all of which gained independence by the middle 1960's with a sizable minority of the Tethan population coming from former colonies. With a commitment to equality and fighting income disparity, Tethys has some of the highest tax rates in the Europe."

• Location: Middle East, island in the Mediterranean Sea, north of Egypt

Population: 783,305 (July 2013 est.)
Unemployment rate: 23.7% (2012 est.)
Population below poverty line: 70%