

Electronic Theses and Dissertations, 2004-2019

2018

The Resonance and Residue of the First African American Newspaper: How Freedom's Journal Created Space in the Early 19th Century

Valerie Kasper
University of Central Florida

 Part of the [African American Studies Commons](#), [Mass Communication Commons](#), and the [Rhetoric Commons](#)

Find similar works at: <https://stars.library.ucf.edu/etd>
University of Central Florida Libraries <http://library.ucf.edu>

This Doctoral Dissertation (Open Access) is brought to you for free and open access by STARS. It has been accepted for inclusion in Electronic Theses and Dissertations, 2004-2019 by an authorized administrator of STARS. For more information, please contact STARS@ucf.edu.

STARS Citation

Kasper, Valerie, "The Resonance and Residue of the First African American Newspaper: How Freedom's Journal Created Space in the Early 19th Century" (2018). *Electronic Theses and Dissertations, 2004-2019*. 5798.

<https://stars.library.ucf.edu/etd/5798>

THE RESONANCE AND RESIDUE OF THE FIRST AFRICAN AMERICAN
NEWSPAPER: HOW FREEDOM'S JOURNAL CREATED SPACE
IN THE EARLY 19TH CENTURY

by

VALERIE FUMEA KASPER
M.A. University of South Florida, 1995

A dissertation submitted in partial fulfillment of the requirements
for the degree of Doctor of Philosophy
in the Department of Texts and Technology
in the College of Arts & Humanities
at the University of Central Florida
Orlando, Florida

Spring Term
2018

Major Professor: Scot A. French

© 2018 Valerie Fumea Kasper

ABSTRACT

The first African American newspaper, *Freedom's Journal*, has a historical, rhetorical, and spatial purpose. It not only showed the impact made by African Americans in the fight for their civil rights in the early 19th century, but as an artifact it illustrated and preserved that history allowing it to be studied centuries after the newspaper ceased printing. The purpose of *The Resonance and Residue of the First African American Newspaper: How Freedom's Journal Created Space in the Early 19th Century* is to provide an interdisciplinary approach to historical newspapers that illustrates an alternative history in this country — a history of and by African Americans. By combining both print and digital research methods, new historical, rhetorical, and spatial information can be discovered that illustrates how the first African American newspaper fought against the influences of white society in the early 19th century and created a space for the black community that became meaningful enough to transform America into a place in which African Americans identified as Americans. Therefore, the purpose of this research is to combine traditional research and close reading with digital analysis (machine reading) by using different digital tools to illustrate how *Freedom's Journal* used text to combat the influences/powers that were shaping the early 19th century, and create a new and different type of historical narrative about how one oppressed community was successfully able to fight another dominant community through the use of text.

To my family and friends who have supported me through this seven-and-a-half-year journey.

ACKNOWLEDGMENTS

I am grateful to those with whom I have had the pleasure of working with during the last seven-and-a-half years of my education. I would like to thank each member of my dissertation committee for providing me guidance through this process and teaching me a great deal about academic research. I would especially like to thank Dr. Scot French, the chairman of my committee. As my teacher and mentor, he has taught me a great deal.

I would also like to thank Patty Hurter for keeping me organized and on target.

In addition, this work would not have been possible without the support of *Accessible Archives* for allowing me access to their archives.

TABLE OF CONTENTS

LIST OF FIGURES.....	viii
LIST OF TABLES.....	ix
CHAPTER ONE: INTRODUCTION TO THE RESONANCE AND RESIDUE OF THE FIRST AFRICAN AMERICAN NEWSPAPER: HOW FREEDOM’S JOURNAL CREATED SPACE IN THE EARLY 19 TH CENTURY.....	1
Where the Residue of the First African American Press Began.....	8
Methods, Research Questions, and Projects.....	13
Research Questions.....	14
Geolocation Digital Project.....	15
Topic Modeling Digital Project.....	17
References.....	20
CHAPTER 2. READING A 19 TH CENTURY HISTORICAL NEWSPAPER IN THE DIGITAL AGE: THEORY AND PRACTICE FROM THE INTERDISCIPLINARY FIELDS OF TEXT & TECHNOLOGY AND DIGITAL HUMANITIES	22
Orality to Literacy: The Evolution of Media and How It Restructures How Society Thinks.....	22
From Print Culture to Digital Culture.....	25
The Effect of the Digital Turn, the Emergence of New Technologies, and the Changing of Normal Historical Practice.....	28
The Digital Turn.....	28
The Emergence of New Technologies.....	32
Changing the “Normal Historical Practice” of the Discipline.....	34
The Digital Humanities and Freedom’s Journal.....	43
References.....	46
CHAPTER THREE HOW <i>FREEDOM’S JOURNAL</i> CREATED SPACE IN THE EARLY 19 TH CENTURY.....	48
Introduction.....	48
How Newspapers Created Space.....	49
The Study of Spatial History.....	55
Methods.....	57
Results.....	61

Caribbean/West Indies	63
Africa	66
Europe	70
North America — Canada	74
North America — The United States.....	76
Conclusion.....	81
References	84
CHAPTER FOUR USING TOPIC MODELING TO SEARCH FOR LATENT THEMATIC STRUCTURE WITHIN FREEDOM'S JOURNAL AND UNMASK ITS PLACE AND IMPORTANCE IN HISTORY	86
Introduction	86
Understanding Topic Modeling.....	88
Topic Modeling Case Studies and the LDA Method.....	95
Methods.....	98
Word Frequencies within Freedom's Journal	98
Generating the 30 Topics in Pro Suite	103
Topics Found Within Freedom's Journal – The Results	106
Conclusion.....	119
References	122
CHAPTER 5. CONCLUSION: THE LEGACY OF FREEDOM'S JOURNAL.....	124
The Resonance	124
The Residue.....	125
What This Project Brings to the Conversation.....	126
APPENDIX A: LIST OF TOPICS WITH DEFINITIONS	130
APPENDIX B: KEYWORDS PER ISSUE PER TOPIC	135

LIST OF FIGURES

Figure 1. Publications listed by date after a search of place names.....	58
Figure 2. List of place names, number of articles mentioned, and dates.....	60
Figure 3. Global view of the place names used in Freedom’s Journal.....	62
Figure 4. Place names in the Caribbean/West Indies.	63
Figure 5. Place names in Africa.	66
Figure 6. Place names in Europe.....	70
Figure 7. Place names in the United States.	76
Figure 8. Place names in northeast United States.	78
Figure 9. Illustration from Blei, D. 2012. “Probabilistic Topic Models.”	96
Figure 10. Original word cloud produced by Tagul for Freedom’s Journal.....	101
Figure 11. Second Word cloud produced by Tagul with author-selected unnecessary words removed.	101
Figure 12. First word cloud using the word frequencies generated by Word Stat in Pro Suite (produced in Tagul).	102
Figure 13. Second word cloud using the word frequencies generated by Word Stat in Pro Suite after manual stemming and revision (produced in Tagul).	102
Figure 14. Topics Found Within Freedom’s Journal.....	105
Figure 15. Frequency of the words slave and slavery across the two-year run of Freedom’s Journal. ...	108
Figure 16. Keywords per issue for the topic of slavery commerce.....	110
Figure 17. Frequency of the words slave and slavery across the two-year run of Freedom’s Journal. ...	110
Figure 18. Keywords per issue for the topic of committee work.	111
Figure 19. Keywords per issue for the topic of church news.....	111
Figure 20. Keywords per issue for the topic of God’s teachings.....	112

LIST OF TABLES

Table 1. Top 20 word frequencies as determined by each program without manual stemming or intervention.	103
Table 2. Top 20 word frequencies in Word Stat after manual stemming and revision process.	103
Table 3. Table 3. Topics that contain a derivative of the word slave.	106

CHAPTER ONE:
INTRODUCTION TO THE RESONANCE AND RESIDUE OF THE
FIRST AFRICAN AMERICAN NEWSPAPER: HOW FREEDOM'S JOURNAL
CREATED SPACE IN THE EARLY 19TH CENTURY

Those who first created newspapers in the 1600s used Gutenberg's press and repurposed this old technology to create a new medium; and in doing so, the new medium produced by the old technology had a compelling influence on society different from previous texts. According to Marshall McLuhan, societies have always been shaped more by the nature of the medium with which men communicated than by the content of the communication, and it was this change in print medium that influenced and transformed society. Newspapers emerged during a predominantly oral culture, but as print became more interiorized, and the dominance of the ear gave way to the eye, print began to restructure the way society thought. The purpose of the newspaper transformed from augmentation of oral information to confirmation of the veracity of that information. In addition, newspapers maintained that information as a printed permanent record, which created an authoritative role in society that influenced its trust in the print medium. A newspaper article could be used in both the present and the future to substantiate and expand information that was already verbally available, thereby preventing false reports and placing the newspaper in a position of authority. The printing press also allowed for mass distribution and increased communication; the newspaper provided its readership with a much wider view of the world around it, which created a cultural identity. Newspapers also set the stage for community participation and a public sphere, and it was in the public sphere where opinions and values were created. According to Johanna Drucker, social order – specific rules in which individuals should behave according to norms and

expectations set by their position and status – was mediated through public discourse.¹

Therefore, newspapers, which play an active role in this mediation because of their ability to augment information, confirm the accuracy of information, act as a permanent record of information, increase the distribution of information, and provide significant and continued social impact by providing information for the public sphere.

In addition to providing, validating, and preserving information, newspapers as a medium create space. Newspapers create space by creating an environment through which their readership experiences shared information, but they also make this space meaningful to their readers, thereby transforming that space into a place. Space that is made meaningful becomes a place. When newspapers continue to print (or not print) certain locations or write about certain communities, those locations and communities become known (or stay unknown) by the newspaper's readership. In addition, this printed information can create a positive place; but sometimes, this information creates a negative place. According to Tim Cresswell, place is created by people with more power, such as politicians and the media. He illustrates this concept through Kay Anderson's example of Chinatown, in which the name Chinatown was associated with pollution and disease, and Benjamin's Forest's example of West Hollywood, in which the gay community was able to create a positive identity for themselves connected to West Hollywood.² Many scholars focus on place as a physical location. John Agnew explains three properties of place: location, locale, and sense of place.³ All three properties encompass

¹ Johanna Drucker and Emily McVarish, *Graphic Design History: A Critical Guide*, (Upper Saddle River, New Jersey: Pearson Prentice Hall, 2009).

² Tim Cresswell, *Place: A Short Introduction*. (Blackwell Publishing, 2004). 27-29.

³ John Agnew, *The United States in the World Economy*. (Cambridge University Press, 1987).

place as a location. However, Cresswell maintains that place is not “just a thing in the world but a way of understanding the world” so a place is a “rich and complicated interplay of people and the environment.”⁴ Therefore, place is how people experience the world and make it meaningful. Cresswell looks at how place works in a world of social hierarchies, in which place can be seen and used in a positive or negative manner as a tool “in the creation, maintenance, and transformation of relations of domination, oppression, and exploitation.”⁵ Newspapers are part of this social hierarchy, and they have the authority and the influence to make space meaningful, thereby changing it into place, thereby influencing its readership. They help society understand the world and make it meaningful; and in doing so, they use place as a tool to positively or negatively, consciously or unconsciously impact communities.

For two hundred years after the first newspaper appeared, white publishers used the medium to create space for their white readership. However, twenty-seven years into the 19th century, two African American men repurposed this medium to influence society and create a new space when they became editors of the first African American newspaper, *Freedom’s Journal*, and from 1827-1829, this newspaper used the written word to engage and sway society and try to create a positive space for African Americans. The editors of *Freedom’s Journal* used the printed word to create a space for African Americans, a community that was not only excluded by white publishers, but many times denigrated by them. Rhetorically, the words in *Freedom’s Journal* shrewdly opposed slavery and inequality and began the process of building a black

⁴ Tim Cresswell, *Place: A Short Introduction*. (Blackwell Publishing, 2004). 11.

⁵ Tim Cresswell, *Place: A Short Introduction*. (Blackwell Publishing, 2004). 29.

community with a national identity. Through the old system of exchange newspapers⁶ and printed paper, the editors of *Freedom's Journal* began to combat the disparaging words white newspapers used to oppress African Americans, maintain control over them, and reinforce commonplaces already in effect in white communities. White newspapers had already created a space for white society, one they were not willing to share with African Americans. Black society faced rhetorical obstacles as white society depicted them in demeaning and deceptive representations, and they chose the newspaper as their vehicle for fighting misrepresentation. Those connected to *Freedom's Journal* struggled to demonstrate to the white community that black citizens were human beings who were being treated unfairly, and that this unjust treatment needed to end. The message from the editors of the newspaper to its audience (both black and white) was the need for freedom, the right to equality, and the creation of a collective African American identity. In addition to its rhetorical mission, *Freedom's Journal* carved out a space for African Americans within American society. This newspaper constructed a space for black America in juxtaposition to the white influences shaping the early 19th century. *Freedom's Journal* would also become a place of memory, part of America's history – a history different from that of white America – and African Americans were able to not only successfully challenge and change existing stereotypes and commonplaces through the use of this medium, but to create and foster a foundational space for the black community with a sense of pride and identity. It would lay the groundwork and provide the impetus for future

⁶ Exchange systems were how newspapers shared articles. This system allowed for newspapers to reprint articles from other newspapers.

black newspapers that would eventually transform this foundational space into a sense of place for African Americans within the country.

In addition to its spatial and rhetorical purpose, *Freedom's Journal* has a historical purpose, but not one that has been brought to its full potential. *Freedom's Journal* is well-known as the first African American newspaper, and it is cited frequently in that respect, but despite its rhetorical and historical importance, little research exists concerning this newspaper. One book exists, and many articles, but most of that work appears to be historiographies. Most of the material written about this newspaper focuses on the fact it was the first black newspaper. Otherwise, with the exception of a few scholars, little more has been done. Jacqueline Bacon wrote a book in 2007 that examines the history of the newspaper, its articles, and its legacy.⁷ Winston James and Mary Sagarin each wrote a book that examines the life of John Brown Russwurm, one of the editors.⁸ Other than those three books, *Freedom's Journal* exists in other books only as a small section showing the beginning of the African American press. The research for these books and articles was all completed through traditional print methods, so with current digital technology, more research possibilities arise with which to increase knowledge and information about the first black newspaper and its importance, which lies much deeper than its role as the first African American newspaper.

The historical purpose of *Freedom's Journal* is significant because it composed a printed history, locally, nationally, and internationally, of African American culture from 1827-1829. It not only showed the fight for their civil rights, but as an artifact it illustrated and preserved the history of

⁷ Bacon, Jacqueline. *Freedom's Journal: The First African-American Newspaper*. (Lanham, MD: Lexington, 2007).

⁸ James, Winston. *The Struggles of John Brown Russwurm*. (New York: New York University Press, 2010). and Sagarin, Mary. *John Brown Russwurm*. (New York: Lothrop, Lee & Shepard Company, 1970).

their struggles against white society. Newspapers are important primary sources that preserve information that helps reconstruct occurrences, document history, and facilitate society's understanding of what took place during certain time periods in history. Histories are an accumulation of written memories. Histories are narratives composed through the lens of the people writing them, and for centuries historians have composed written narratives to document history. But, it's not just the researcher writing the history based on primary source material that's important; it is also the artifact itself. Hayden White said histories are composed, so they are composed by the researchers who write them, and in addition, they were composed by the people who wrote the artifact. Jacqueline Bacon wrote a book about *Freedom's Journal* using the traditional research methods of the time period, and her interpretation allows readers to understand 19th century society based on print research methods. But, Cornwall and Russwurm, the editors of *Freedom's Journal*, wrote the artifact, which illustrates the difference between American history told through white newspapers and that of black newspapers. That is significant. Without the black press, the white press would have been the only written journalistic history documenting the African American past. Instead, there are now two perspectives of one history in one diverse country struggling through a difficult time period. By composing their version of history, African American newspapers produced a valuable new perspective and a written residue that has survived for centuries, and this journalistic history began with the two-year run of *Freedom's Journal*.

Therefore, an exigence exists for my research of *Freedom's Journal* for numerous reasons.

- Minimal written material on *Freedom's Journal* exists, and what has been written is historical and only uses the print medium for its research and findings. Digital research can increase our understanding of this newspaper and its purpose. It can strengthen the current information known about *Freedom's Journal* and augment our knowledge.
- My research combines and advances scholarship in multiple disciplines. It combines historical, rhetorical, and spatial analyses in unique and innovative ways. Few scholars, if any, have looked at the use of rhetoric and space in black newspapers to combat white society and build a black identity, much less combine it with historical analysis. Though Jacqueline Bacon touches on rhetoric, no one has gone beyond the print medium to explore the use of space and place used by *Freedom's Journal* to combat the influences and powers that were shaping the early 19th century. My research looks at the use of both rhetoric and space and how the editors of *Freedom's Journal* used text to construct space for the black community and utilize rhetoric to combat white society and build a black identity.
- In addition to the print medium, the research this newspaper offers through the digital realm has not been explored. The digital realm offers a new way to study primary source material that will provide new historical information about this artifact. Information discovered with digital tools will add to the research discovered from the print medium by not only accessing different data, but by presenting a different kind of representation of the data, which will increase society's knowledge

of *Freedom's Journal* and its contribution to America's history. My research employs digital tools not previously available or widely used that will enable innovative approaches for analyzing and understanding *Freedom's Journal* as an important artifact.

The purpose of my dissertation, *The Resonance and Residue of the First African American Newspaper: How Freedom's Journal Created Space in the Early 19th Century*, is to provide an interdisciplinary approach to historical material that illustrates an alternative history in this country — a history of and by African Americans — as shown through the primary source material of the first African American newspaper, *Freedom's Journal*. By combining both print and digital research methods, new historical information can be discovered that illustrates how the first African American newspaper fought against the influences of white society in the early 19th century and helped create a space for the black community that became meaningful enough to transform into a place in which African Americans identified as Americans. Therefore, the purpose is to combine close reading with machine reading to illustrate how *Freedom's Journal* used text to create space in relation to the influences/powers shaping the early 19th century, and create a new and different type of historical narrative about how one oppressed community was successfully able to fight another dominant community through the use of text.

Where the Residue of the First African American Press Began

Written words have residue because they can be seen and touched; primary orality has no such residue. In a primary orality culture, those that lack *any* knowledge of writing, the spoken word

is gone once it is released; therefore, it lacks residue. Nothing remains without being memorized or written down. Walter J. Ong's *Orality and Literacy: The Technologizing of the Word* examines verbal thought in an oral culture, followed by how written and printed words restructure a society's consciousness. This transition from oral to literate and the restructuring of society's consciousness can be seen through the African American slave system. Originally, African communities were oral before the slave trade started, and it was that orality that helped the culture survive once the slave trade and millions of Africans were displaced. But without literacy and the written word, much of their culture was lost during slavery because it lacked residue. Once African Americans discovered literacy, they fought to become educated because they understood the power of the written word. The written word meant longevity; their words would resonate among the current society and leave a residue for future societies, which in turn, throughout the decades helped restructure society's consciousness because of its permanence.

During 19th century, as African American slaves fought for their freedom and their civil rights, they learned that the ability to read and write was a valuable weapon toward achieving their goals. It provided them the tools they needed to confront white society, not only through oral speeches, such as abolitionist Olaudah Equiano, but through written expression, such as poet Phillis Wheatley. It helped equalize them with white society and also allowed them to insert themselves into the public consciousness and reach outside the black community into the white community. Knowing how to read and write offered African Americans a strategy for fighting the institution of slavery because their written words provided a permanent meaning to their

readers, but few well-known black writers existed in the late 18th and early 19th centuries, and the written material produced was minimal.

The black community needed a more frequent and accessible means with which to connect to the black community and also combat the daily rhetorical obstacles of the white community.

One of the obstacles used by white society against black society was the daily newspaper.

White-owned newspapers began to proliferate in the 19th century. During the first three decades, the number of newspapers printed increased from 200 to 1200, which gave the

United States a larger number of newspaper than any other country at the time.⁹ Newspapers

were partisan and run by upperclass white men for a white readership. According to Frank

Luther Mott, who considered this period “a kind of ‘Dark Ages’ of American journalism,” even

the mercantile newspapers of the time period chose sides during elections, and none of them

were well-edited. In addition, “scurrility, assaults, corruption, blatancy were commonplace,”

which “reflected the crassness of the American society of the time.”¹⁰ The coverage of African

Americans by white newspapers in the 1820s depicted them in demeaning and deceptive

representations. Newspapers portrayed them as untrustworthy, indolent, and hedonistic; they

mocked their intelligence, speech, and physical features. Much of the writing that focused on

African American culture was harsh and disparaging. One of the more prolific and prominent

editors in New York was Mordecai Manuel Noah, who owned several newspapers, including the

New-York Enquirer and the *New-York National Advocate*. Noah, who was Jewish, used his

newspaper as a platform to attack the black community in New York. Noah attacked black men

⁹ Frank Luther Mott, *American Journalism: A History of Newspapers in the United States through 250 Years 1690-1940*, (New York: The Macmillan Company, 1949). 167.

¹⁰ *Ibid.*169.

daily in his newspaper for their lack of integrity and courage, he questioned the chastity of black women, he supported slavery, and he railed against setting slaves free; in addition, he also complained that free blacks in the city would “swell our list of paupers, they are indolent and uncivil.”¹¹ He was labeled by the black community as “the most vile protagonist” in New York and a “perpetrator of evil.”¹²

Because of the derogatory language by Noah and other white editors, leaders in the African American community felt they needed a vehicle to combat the negativity displayed. In addition, a weekly newspaper would also offer them the means with which to connect to the black community and create solidarity. Therefore, a group of educated, free, middle class African American men devised a strategy to unify the black community and discuss "whatever concerns us as a people," while counteracting "daily slander" and "misrepresentations" of white editors.¹³ The first black-owned newspaper, *Freedom's Journal*, began publication on March 16, 1827. Its editors were Samuel Cornish, 32, and John Brown Russwurm, 28. Both men were educated and belonged to New York's black leadership, and both originally believed the democratic institution of America could accept the African American population as equal. For two years, they used their written platform to fight for civil rights and discuss community concerns, but they also used it to educate, persuade, and inform their readership. *Freedom's Journal* was not just in response to white racism; both editors focused on creating a forum in which African Americans could discuss the concerns of the black community. The editors

¹¹ Washburn, Patrick S. *The African American Newspaper: Voice of Freedom*. (Evanston, Illinois: Northwestern University Press, 2006) 17.

¹² *Ibid.* 17

¹³ *Freedom's Journal*, March 16, 1827.

wished "to make our journal of medium of intercourse between our brethren...[and] through its columns an expression of our sentiments on many interesting subjects which concern us...[to] be candidly discussed and properly weighed."¹⁴

Russwurm and Cornish used the written word to fight misrepresentation, to engage and sway society, and to create a positive space for African Americans, a community that was not only excluded by white publishers, but many times denigrated by them. Rhetorically, the words in *Freedom's Journal* shrewdly opposed slavery and inequality and began the process of building a black community with a national identity. Through the old system of exchange newspapers and printed paper, the editors of *Freedom's Journal*, began to combat the disparaging words white newspapers used to oppress African Americans, maintain control over them, and reinforce commonplaces already in effect in white communities. White newspapers had already created a space for white society, so African Americans used *Freedom's Journal* as their vehicle for not only fighting that misrepresentation, but building a national identity. The message from the editors of the newspaper to its audience (both black and white) was the need for freedom, the right to equality, and the creation of a collective African American identity. In addition to its rhetorical mission, the printed words in *Freedom's Journal* carved out a space for African Americans within American society. This newspaper constructed a space for them in juxtaposition to the white influences shaping the early 19th century. Through the use of its text, *Freedom's Journal* created space for a community that lacked a space within the dominant white community, and not just a space, but a positive space for the black community that not

¹⁴ *Freedom's Journal*, March 16, 1827.

only stood against the views of the white community, but facilitated the black community in constructing their own American identity.

Through the use of this medium, a foundational space was created and fostered for African Americans to provide a sense of pride and identity. It would lay the groundwork and provide the impetus for future black newspapers that would eventually transform this foundational space into a sense of place for African Americans within the country. Despite the short run of *Freedom's Journal*, it was part of the foundation the black community used to fight for future change.

Methods, Research Questions, and Projects

All 103 issues of *Freedom's Journal* are accessible through the database *Accessible Archives*, and because of the newspaper's size, it is an ideal collection to study with both traditional and digital means. It allows for both traditional print research and digital research to be used and combined for the final product. Using traditional print research, a rhetorical analysis and historiography was completed. It was then supplemented by two digitally-based projects: one with geolocation and the other with topic modeling. The goal of *The Resonance and Residue of the First African American Newspaper: How Freedom's Journal Created Space in the Early 19th Century* is to combine algorithmic techniques, such as data mining and topic modeling, with traditional rhetorical and historical analysis to better understand the value of *Freedom's Journal* as a medium in 1827 and currently. The end point being that both the print and digital realms can be used together to produce increased information and knowledge that could not have been discovered with only one medium. The purpose of this dissertation is to explore the use of

digital tools on a historical newspaper to discover how *Freedom's Journal* not only provided its readership a view of the world through the locations it chose to print, but also discover the topics that its editors felt were important to its readership. Each project will combine close reading with machine reading, but each project will use a different digital tool to complete the task of machine reading.

Research Questions

To conduct this research, I composed three research questions with sub-questions to guide my project. The objective is to experience and understand the particular relationship between space, place, and time within which *Freedom's Journal* existed, and to use that information to illustrate the importance of the newspaper in history.

1. What is the value of *Freedom's Journal*?
 - The impact it makes during the time period (the resonance)
 - The documentary record that can be mined later (the residue)
2. Why was *Freedom's Journal* important as a medium in 1827 for creating space?
 - a. How does *Freedom's Journal* become a vehicle for African Americans to organize themselves?
 - What role did *Freedom's Journal* play in the creation of an early black public sphere and the creation of a national identity?

- How was it able to reach outside the black community into the white community and create an open forum?
 - b. What is the role *Freedom's Journal* plays as a medium in rhetorical discourse?
 - c. What hidden themes exist within *Freedom's Journal*?
3. How does *Freedom's Journal* as a medium create physical space?
- a. What locations are being covered in *Freedom's Journal*?
 - How does it represent the geographical mental map of the newspaper?

Geolocation Digital Project

The first project is a location search throughout the newspaper; the digital tools used are keyword searching in combination with the database, *Accessible Archives*, to discover what locations were within the newspaper. This project is the bridge between print and digital because it's a project that could be completed manually (primitive data mining) by reading all 103 issues of the newspaper and tallying the locations listed in every issue. However, for this project, a combination of methods was used. I read through the first 10 issues of the newspapers and made a list of the place names (locations). I ran keyword searches for all 354 place names within the *Accessible Archives* database and produced a chart that included: the location, the total number of times mentioned in the newspaper, and then the total number of times mentioned in each issue. This information was then plotted for a visual representation of various spatial information.

A search of the literature reveals two researchers who have looked at space/place in newspapers.¹⁵ I used their articles and research as a guide for my own work. In Cameron Blevin's research, he looks at how 19th century newspapers, specifically the *Houston Daily Post* and the *Telegraph and Texas Register*, created a view of the world for its readership. He used both close and machine reading to look at the frequency of place names and specific locations across all issues of these two newspapers, so he could discover how each of them created both local and regional space. He discovered that the way each newspaper created space, both locally and regionally, by emphasizing certain locations over others, constructed an imagined geography for their readerships. The second researcher, Carrie Buchanan, focused on how newspapers, specifically the *Toronto Star* and the *Ottawa Citizen*, create space for their own locality. She emphasizes how local print newspapers create a sense of place – sometimes positive and sometimes negative – for their readerships by analyzing each newspaper's content and the changing priority given to local articles in relation to other categories, such as provincial, national, and global. Both researchers use digital data mining technology in order to analyze the content in their newspapers to show how space/place is created.

By showing the locations *Freedom's Journal* printed, the newspaper shows the locations important to the editors and connects the readership with global locations significant to their community. In addition, using the concept of Benedict Anderson's imagined communities, the newspaper will connect its readership to the numerous black people and communities that

¹⁵ Cameron Blevins, "Space, Nation, and the Triumph of Region: A View of the world from Houston," *The Journal of American History*. June 2014, pages 122-147. and Carrie Buchanan, "Sense of Place in the Daily Newspaper," *Aether* Vol. IV, March 2009, 62-84.

exist.¹⁶ Plus, using the concept of Edward Said's imagined geography, it will cast a new perspective on locations around the globe.¹⁷

Topic Modeling Digital Project

The second project focused on topic modeling; the digital tools used are keyword searching in combination with the topic modeling program, Pro Suite. Topic modeling is "a suite of algorithms that aim to discover and annotate large archives of documents with thematic information."¹⁸ Topic modeling programs extract topics or themes from the text by producing lists of words from the collection using a co-occurrence of words within the text. However, these lists of words and the topics they produce require interpretation, which is where machine reading and close reading need to supplement each other. Topic modeling has been used in the humanities for various bodies of work, such as journals and novels. A handful of researchers have ventured into using it for newspapers, and again, I have used their articles and research as a guide for my own work. David J. Newman and Sharon Block looked at the *Pennsylvania Gazette* from 1728 – 1800 to discover the prevalence of its topics and how they changed over time.¹⁹ Robert K. Nelson studied the Richmond *Daily Dispatch* to discover social and political trends and issues of Richmond during the Civil War.²⁰

This type of data mining helps uncover hidden thematic structures in a collection. Topic modeling takes the search function used in the geolocation digital project to an entirely new

¹⁶ Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, (London, 1983).

¹⁷ Edward Said, *Orientalism*, (New York, 1979), 53-55.

¹⁸ David M. Blei, "Probabilistic Topic Models." *Communications of the ACM*, 55:4, 2012. 77.

¹⁹ David J. Newman and Sharon Block. 2006. Probabilistic topic decomposition of an eighteenth-century American newspaper. *Journal of the American Society for Information Science and Technology*, 57(6):753–767.

²⁰ Robert K. Nelson, *Mining the Dispatch*, <http://dsl.richmond.edu/dispatch/pages/intro>

level. Topic models help organize, manage, and annotate the material in a database according to themes or topics, which enables researchers to organize, manage, and annotate the material at a scale impossible with traditional print methods. The idea is that documents exhibit multiple topics, so all of the articles in *Freedom's Journal* could have numerous topics or themes within them, even if it seems they are only focused on one topic.

With topic modeling, each topic is a distribution over a fixed vocabulary, and each document is a mixture of topics. For example, under the topic of slavery, some of the words might be “inhumane” and “emancipation.” In reality, as readers, we only look at the articles, but not the structure of the hidden variables. We read the words, but not necessarily the topics or themes created or composed when the words are combined. It is these hidden variables that add meaning to the article. The goal with topic modeling is to discover the hidden variables and meaning. Readers observe the words, but do not connect them to the topics or themes, and probably don't recognize the numerous topics within one document. Therefore, topic modeling can help organize collections according to the themes within them.

Before entering into the second project, I completed a rhetorical analysis of the newspaper through the traditional means of close reading to discover what topics I could discern from the text without the help of technology. Through close reading, the topics I discovered within *Freedom's Journal* are: (1) increasing racial pride, (2) promoting civic responsibility, (3) countering racial stereotyping, (3) presenting the black perspective on current events, (4) creating a racial identity and unifying the black community, (5) creating empathy, (6) discussing

civil rights and abolition, (7) women's rights, (8) promoting life-improvement, (9) slavery, and (10) integration versus separation.

To complete the second project, I used a topic modeling tool, ProSuite, to produce the data. To collect the data, the 103 issues of the newspaper were run through the computer program ProSuite, which then produced a predetermined number of word groups, called topics. Each word group, or topic, consists of a number of words that co-occurred throughout the newspaper. An algorithm is used to provide the topics. I expect the topic modeling to complement the geospatial project in that the themes will be in articles with place names; therefore, the theme of racial pride might connect with specific place names around the country or the globe, thereby adding to the creation of a positive space through place for the black community.

Through the use of digital tools, in combination with close reading, these two case studies hope to provide additional information and possibly new digital methods that allow researchers to analyze historical newspapers more effectively. It is expected that the information discovered through the completion of these two digital projects will not only complement previous research about *Freedom's Journal*, but provide additional material to augment the traditional research methods and show how *Freedom's Journal* created a space for the black community in the early 19th century.

References

- Ayers, Edward L. "The Pasts and Futures of Digital History." Virginia Center for Digital History, 1999, accessed 05 Oct. 2012. <http://www.vcdh.virginia.edu/PastsFutures.html>
- Benedict Anderson, *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, (London, 1983).
- Blei, David M. "Probabilistic Topic Models." *Communications of the ACM*, 55:4, 2012.
- Bolter, J. David. *Writing Space: Computers, Hypertext, and the Remediation of Print*. Mahwah, NJ: Lawrence Erlbaum Associates, 2001. Print.
- Bush, Vannevar. "As We May Think." *The Atlantic Magazine*, July 1945. Web. 15 Oct 2011.
- Carter, Paul. *The Road to Botany Bay: An Exploration of Landscape and History*. New York: Alfred Knopf, 1988. Print.
- Chartier, Roger and Guglielmo Cavallo. *A History of Reading in the West*. Great Britain : Blackwell Publishers, 1999. Print.
- Clark, Charles. *The Public Prints – The Newspaper in Anglo-American Culture 1665-1740*. New York: Oxford University Press, 1994. Print.
- Cohen, Daniel J., and Roy Rosenzweig. *Digital History: A Guide to Gathering, Preserving, and Presenting the past on the Web*. Philadelphia: University of Pennsylvania Press, 2006.
- Drucker, Johanna and Emily McVarish. *Graphic Design History: A Critical Guide*. Upper Saddle River, New Jersey: Pearson Prentice Hall, 2009. Print.
- Hayles, Katherine. *How We Think: Digital Media and Contemporary Technogenesis*. University of Chicago Press: 2012. Print.
- Donald M. *Antebellum Newspapers*. 1976. Print.
- Lanham, Richard A. *The Electronic Word: Democracy, Technology, and the Arts*. Chicago: U of Chicago P, 1993.
- Frank Luther Mott, *American Journalism: A History of Newspapers in the United States through 250 Years 1690-1940*, New York: The Macmillan Company, 1949.

Murray, Janet Horowitz. *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. New York: Free Press, 1997.

Knowles, Anne Kelly., and Amy Hillier. *Placing History: How Maps, Spatial Data, and GIS Are Changing Historical Scholarship*. Redlands, CA: ESRI, 2008. Print.

Ong, Walter J. *Orality and Literacy: The Technologizing of the Word*. New York: Routledge, 2009.

Edward Said, *Orientalism*, (New York, 1979), 53-55.

Staley, David J. *Computers, Visualization, and History: How New Technology Will Transform Our Understanding of the past*. Armonk, NY: M.E. Sharpe, 2003.

Thomas III, William G. "Is the Future of Digital History Spatial History?" Newberry Library Historical GIS Conference, March 2004.

Unsworth, John. "Digital Humanities Beyond Representation." *Welcome to the ISRL*. 12 Jan. 2011. Web. 24 Oct. 2011. <<http://www3.isrl.illinois.edu/~unsworth/>>.

White, Hayden. "The Question of Narrative in Contemporary Historical Theory." *History and Theory* 22.1 (1984): 1-33. *JSTOR*. Web. 22 June 2010. Print.

White, Richard. "What is Spatial History?" Spatial History Lab, Stanford University. Working paper; Submitted 1 February 2010. <http://www.stanford.edu/group/spatialhistory/cgi-bin/site/pub.php?id=29>

CHAPTER 2.
READING A 19TH CENTURY HISTORICAL NEWSPAPER IN THE DIGITAL AGE:
THEORY AND PRACTICE FROM THE INTERDISCIPLINARY FIELDS OF
TEXT & TECHNOLOGY AND DIGITAL HUMANITIES

This chapter will focus on two sets of readings that provide the theoretical framework for the two case studies: (1) a broad history of media and the evolution of communication, and (2) a narrower focus of the digital turn and the emergence of new technology and how it has transformed traditional historical practice.

Orality to Literacy: The Evolution of Media and How It Restructures How Society Thinks

The written word has residue according to Walter J. Ong, who writes in *Orality and Literacy: The Technologizing of the Word* about society's transition from an oral culture to a print culture.²¹ In a "primary orality" culture, a culture that lacks any knowledge of writing, the spoken word is gone once it is released; therefore, it lacks residue. Nothing remains without being memorized or written down, and that which is only memorized can be changed, so it lacks any authoritative permanence. The written word, however, has an authoritative permanence because it's seen and touched in a physical medium. It has allowed society to increase its knowledge by generating a trail of permanent information for others to access and remember. Print became dominant as words moved from sound (spoken) to visual (read) because print provided words a permanent location within space, such as a book. Books became a container, according to Marshall McLuhan, that held information – an entire container full of knowledge.²² In addition

²¹ Walter J. Ong, *Orality and Literacy: The Technologizing of the World*, (New York: Routledge, 2009).

²² McLuhan, Marshall. *Understanding Media*. (Gingko Press, 2003).

to containing knowledge, the pages within the book provided visual boundaries and structure, which created a new way to think about space. The visual space of the book is uniform and sequential, and over time society internalized the structure of the printed word on the page. Print provided a hierarchy for easier reading, and society learned how to read because, according to Christian Vandendorpe in *From Papyrus to Hypertext: Toward the Universal Digital Library*, every text contains a set of instructions for readers, which enables them to orient themselves to the medium.²³ For centuries, society internalized print and learned how to read and write with print. Print represents tradition; permanent words represent stability.

Over the centuries newspapers, like books, have provided societies with a sense of tradition and stability by providing communities with permanent information. The permanence of this printed information has, as Ong states, restructured society's consciousness by allowing society to extract and convey increasingly more complicated concepts.²⁴ The printed words on the page also have been internalized, so society understands how to read and easily navigate the page. This gives newspapers significant staying power that has restructured society's consciousness throughout centuries across different media; and in the process, the different technology used has revolutionized the ways in which society transforms and transmits this knowledge. Newspapers provide a residue in which they act as artifacts and provide primary source material that presents current and future societies with a permanent history of itself. But, in addition, newspapers also produce a resonance, a quality that makes them meaningful and important to society during its current time period and for a long time after, and it is this

²³ Vandendorpe, Christian. *From Papyrus to Hypertext: Toward the Universal Digital Library*. Chicago: University of Illinois Press, 1999. p. 52.

²⁴ Ong, *Orality and Literacy*, 77-113.

resonance that restructures society's consciousness over time and augments its knowledge.

This resonance and residue came into existence because of the printed word, which acts as the foundation of society's memory, augmentation of its information, and restructuring of its consciousness.

Newspapers evolved from oral town proclamations in the 17th century, and slowly, during the 18th century, the purpose and function of the printed newspaper became not only to confirm the veracity of information heard through word of mouth and maintain it as a permanent record, but to augment that information, transmit it, and act as a memory aid for society. Ong believes that the written word supplements society's memory, and he examined how written words not only augment memory, but restructure a society's consciousness.²⁵ Specifically, he examined how progressing from an oral culture to a literate culture restructured thought because oral verbalization is not the same as written verbalization. By 1827 when *Freedom's Journal* was first published, it was solidly part of the print medium, so it provided society with both a resonance and residue concerning African American culture. By distributing information about the black community, the editors offered their readers knowledge, and over time this knowledge about African Americans resonated in their consciousness and helped readers place them within a global and historical context that countered racist notions and allegations of blacks as a people without a culture or worthy heritage.

Newspapers not only augment and confirm oral information, they become historical records of permanent information as society collects and preserves them. According to Charles Clark,

²⁵ Ong, *Orality and Literacy*, 1.

newspapers acted as a “bridge between the oral culture and the more formal, authoritative print culture.”²⁶ The binding of newspapers in the 1600s created archives from the onset, and this creation led to preservation of artifacts for the future. As technology improved over the centuries, archives moved from bound printed materials, to microfilm and microfiche, to digitized materials accessible through websites. As newspapers cross these bridges of media, they provide society with not only current information about itself, but they also present a reflection of society’s past.

From Print Culture to Digital Culture

As society crosses the bridge into the digital age, thought is again restructured due to the medium. In the digital age, the space of the text is remediated into kaleidoscopic associative patterns, which is much different from the space of traditional linear print. Jay David Bolter and Roger Chartier believe the shift to digital technology is turning out to be a greater transition than the previous one.^{27,28} Bolter calls it a “more traumatic remediation” because the look and feel of the medium changes, and for Chartier it is more radical because the method of organization, structure, and appearance have changed substantially.²⁹ In the digital realm, associative thought processes are being added to linear thought processes, which again augment information, increase memory, and restructure consciousness. Readers no longer move along a straight, or chronological, path. Instead, they are able to travel in multiple

²⁶ Clark, Charles. *The Public Prints – The Newspaper in Anglo-American Culture 1665-1740*. (New York: Oxford University Press, 1994). 52.

²⁷ Bolter, J. David. *Writing Space: Computers, Hypertext, and the Remediation of Print*. (Mahwah, NJ: Lawrence Erlbaum Associates, 2001).

²⁸ Roger Chartier and Cavallo Guglielmo, *A History of Reading in the West*, (Great Britain: Blackwell Publishers, 1999).

²⁹ Bolter, *Writing Space*, 24.

directions almost simultaneously. Technology such as the Internet allows readers to travel in all directions at once. Hyperlinks, multiple web pages, multimedia, and other digital elements allow readers to consume and store more information. Similar to print, stepping into the digital environment is inevitable, but stepping back from it to perceive it as an environment is indispensable to understanding its power and its effect. Both print and digital media need to be perceived through their environments because their media and their purposes are different; therefore, their effects are different on society. Each medium changes the environment, which in turn, changes society. Katherine Hayles refers to this as a feedback loop: society creates a tool, the tool changes the environment, which then changes society.³⁰

Marshall McLuhan refers to this when he says: “the medium is the message.”³¹ As electronic media was emerging and gaining a foothold, McLuhan contended that the world was not only getting smaller, but it was becoming more available and familiar to our minds and emotions. He called this the “global village,” a world interconnected by media, and because he believed the medium was the message, this meant the media have as much effect on society as the information they communicate.³² Therefore, in the age of print, before electronic media, society was educated by books, magazines, and newspapers. After the emergence of electronic media, radio and television joined this dissemination of knowledge, followed decades later by computers, the Internet, and the World Wide Web. Previously, written or printed words had been the source of all worldly information. McLuhan considered the act of reading a private

³⁰ Hayles, Katherine. *How We Think: Digital Media and Contemporary Technogenesis*. (University of Chicago Press, 2012). 13.

³¹ McLuhan, Marshall. *Understanding Media*. (Gingko Press, 2003). 18-35.

³² *Ibid.* 6.

experience in which print was the only medium from which society viewed the world. But since the creation of electronic media, the print medium no longer has sole responsibility for society's global understanding. Electronic and digital media have made the world a "global village" in which society not only views itself through a variety of media, each one affecting it and the information it receives differently, but the information flows faster and farther than it did in the print culture.

The digital media was already being dreamed of when, in 1945, Vannevar Bush wrote an essay for *The Atlantic Monthly* that described a memex, which was a hypothetical machine created to augment human memory through the use of associative linking.³³ The machine he envisioned sounded like today's computers. It was a desk with viewing screens, buttons, levers, and a keyboard. It also had microfilm storage in which the information could be retrieved and then projected onto a screen. Within the memex, a person could research a topic, and as he or she discovered different books, articles, and other resources, they could be tethered together to create a trail of information about one particular topic. Although this may sound similar to using a computer and the World Wide Web to research a topic, when Bush wrote "*As We May Think*," the Internet didn't exist, and Bush didn't live long enough to witness the Internet or the World Wide Web. However, in 1989 the World Wide Web would become the next step in restructuring the way society thought – from linear to associative — and it can be seen in today's digital humanities projects, where complex trails of information lead to associative patterns, and society can examine and interpret them.

³³ Bush, Vannevar. "As We May Think." *The Atlantic Magazine*, July 1945. Web. 15 Oct 2011.37.

Bush's memex, with its associative patterns and trails, was a harbinger for this change in structure, organization, and appearance in the digital realm, and it can be seen in today's digital archives and web projects, where complex trails of information lead to associative patterns, and society can examine and interpret them. By making a memex such as this available and allowing the reader to make connections between artifacts and history, the reader becomes an active participant in the process. Through this type of medium readers would be encouraged to engage with the evidence and form their own opinions. But, it took until the 1980s for technology to catch up with the memex idea. In the 1980s with the emergence of the Internet, followed by the World Wide Web, this new medium provided the digital space with the associative trails Bush imagined. People now had the ability through this new medium to share and examine information in an entirely new way.

The Effect of the Digital Turn, the Emergence of New Technologies,
and the Changing of Normal Historical Practice

The Digital Turn

With the development of the digital medium, scholars began to use computers for more than writing essays. The digital turn focuses on the use of digital tools for research within the digital medium. The effects of the digital turn are important to embrace because those effects not only allow readers to absorb more knowledge and make more intellectual connections, those effects allow for researchers to discover more data, store more information, and provide another narrative to their readers, who now can participate in the discovery process as they too read and analyze the data, which will allow more depth, credibility, and knowledge of a topic.

Edward Ayers embraced the digital turn and used the digital medium in the 1990s to create his own version of Bush's memex when he applied digital technology to his research in *Valley of the Shadow*, which is a digital archive of primary source material that allowed Ayers to question how slavery divided two American communities on opposite sides of the Mason-Dixon from the time of John Brown's Raid through Reconstruction. The archive documents the lives of these citizens through letters, diaries, newspaper articles, government records, and speeches. Ayers wanted to illustrate how users could employ digital tools to complement and supplement print research, so he utilized the digital medium to obtain his goals.³⁴ The project possessed linear pieces, but it was created in an environment that allowed for associative thought process because Ayers believed the digital environment was the most effective medium for collecting and presenting his research and his message.³⁵ The archive, which is a database of material, allowed his users to participate in the discovery process; it allowed him to collect and store more information than print could contain; it provided him an open-ended space within which he could continue to add and subtract materials; and it provided another narrative technique for him to use in creating his story. Ayers' project is one of many examples of remediation as society transitions from print to digital. It illustrates the restructuring of thought as one's mind learns to read and navigate in both the print and online environments.

From bound newsprint, to microfilm, to digital archives, historical newspapers have survived over centuries. Digital preservation of printed primary source materials allows for more storage, easier accessibility, and the manipulability of historical data with digital tools. John

³⁴ Ayers, Edward L. "The Pasts and Futures of Digital History." Virginia Center for Digital History, 1999, accessed 05 Oct. 2012. <http://www.vcdh.virginia.edu/PastsFutures.html>

³⁵ Ibid.

Unsworth believes society is “arriving at a moment when the form of the attention that we pay to primary source material is shifting.”³⁶ Projects such as *Valley of the Shadow* and *The Resonance and Residue of the First African American Newspaper: How Freedom’s Journal Created Space in the Early 19th Century* are about a different kind of representation and use of primary source material. They are about using digital tools not only to help create those representations, but also to help interpret and analyze them.

Preservation of *Freedom’s Journal* in both print and digital provides the residue, a permanent history throughout the centuries of and for America. With access to a library, society can read the written words and interpret America’s history for itself. Scholars can research and hypothesize. But, print is limiting. Digital goes beyond print and opens up new possibilities. It allows people to make use of new computer-based technology to discover new data using the same primary source information, but now, that data can be stored in one location that can be digitally searched. Access to all 103 issues of *Freedom’s Journal* was obtained from *Accessible Archives*, which is an archive of historical primary source material that is compiled into searchable comprehensive databases. They have accumulated 20 different collections with one of them being African American newspapers. This collection currently has nine different African American newspapers that can be not only searched, but viewed. Each edition is also available as a PDF. One of the difficulties of online archives can be access. *Accessible Archives* offers an institutional subscription and an individual subscription. The individual subscription is \$90 per

³⁶ Unsworth, John. "Digital Humanities Beyond Representation." *Welcome to the ISRL*. 12 Jan. 2011. Web. 24 Oct. 2011. <<http://www3.isrl.illinois.edu/~unsworth/>>.

year, and their restriction of 250 pages, images, and tables of content per month is reasonable. However, not all commercial archives are as accommodating.

Cohen and Rosenzweig discuss commercial archives as one of the perils of digital scholarship. In *Digital History: A Guide to Gathering, Preserving, and Presenting the past on the Web*, they assert that inaccessibility is a threat to digital media and academia should not “quietly cede it to giant corporations and their pricy, gated materials.”³⁷ Instead, academia needs to take an active hand in learning to create their own archives. Cohen and Rosenzweig believe this so strongly they wrote a guide to gathering, preserving, and presenting the past on the World Wide Web that focuses on the qualities digital media possess that allow for better use of computer-based technologies for digital history.³⁸ Cohen and Rosenzweig ask how digital media allow more effective research, and they contend that it will change the way we research, present, and preserve the past. With the current amount of analog materials already digitized, and more being digitized each year, the possibilities for computer-based research continuously increase, and in doing so, these artifacts will provide society with a different kind of representation of primary source material, thereby augmenting their knowledge by increasing their learning environment. The digital environment provides a new platform for researching, and it provides society with a new way of learning, a way that should be accessible to all.

³⁷ Cohen, Daniel J., and Roy Rosenzweig. *Digital History: A Guide to Gathering, Preserving, and Presenting the past on the Web*. (Philadelphia: University of Pennsylvania Press, 2006). 13.

³⁸ *Ibid.*

The Emergence of New Technologies

Digital tools provide new ways to research, collect, analyze, and visually represent data in the digital environment that provides new information researchers could not previously obtain through earlier means. Information discovered with digital technology will add to the research discovered from the print medium by not only accessing different data, but by presenting a different kind of representation of the data, which will increase society's knowledge of a topic. Employing digital tools not previously available or widely used will enable innovative approaches for analyzing and understanding important artifacts and information. In their book, *Exploring Big Historical Data*, Graham, Milligan, and Weingart offer a variety of digital tools, such as the data mining tool Google nGram Viewer; the topic modeling program Mallet; and a collection/organization tool like Zotero. Many of the digital tools allow for researchers to look at "the very big" and reduce its complexity until "once obscure patterns and relationships become clear."³⁹

Digital tools enable historians, as Jacques Derrida put it, to "reread past writing according to a different organization of space."⁴⁰ Texts that were once initially written for print can be transformed with different digital tools. Digital tools were created to perform tasks that were once too difficult to do without them. One of which was dealing with data. Ayers focuses on the use of data as a tool, itself. He uses his own project, *Valley of the Shadow*, Ayers uses his own project, *The Valley of the Shadow*, to illustrate tools in the digital medium. Both Geographic

³⁹ Graham, Shawn, Ian Milligan and Scott Weingart. "Topic Modeling: Hands-On Adventure in Big Data." Graham, Shawn, Ian Milligan and Scott Weingart. *Exploring Big Historical Data: The Historian's Macroscopic*. London: Imperial College Press, 2016. Print.

⁴⁰ Derrida, Jacques. *Of Grammatology*, Engl. trans. 1976. 86-87.

Information Systems (GIS) and Extensible Markup Language (XML) were used for the project. GIS was used for analysis to visually illustrate how the social structures were arranged spatially, and XML was used for presentation in order to connect large amounts of evidence with detailed discussions. The project produced a printed book for reading the traditional narrative (*The Valley of the Shadow*), a website for transparency and understanding the project (*The Differences Slavery Made: A Close Analysis of Two American Communities*), and a database for accessing and interacting with the data (The Valley of the Shadow Archive). All three had different purposes. This material would have been much more difficult to present in just the print medium, not to mention how difficult it would have been for the reader to navigate and absorb the complexity of it all. The presentation using three different formats and a variety of different digital tools was crucial to the understanding of the historical significance of Ayer's work.

In addition, Ayers used a database for storage and accessibility to his data. Tools such as databases provide transparency and make available to the reader searchable letters, newspapers, and diaries; interactive maps; histograms; and time lines. They allow for the complexity of history to be made accessible, to be presented differently, and to be refined for interactivity. According to Bolter, databases have long been regarded as legitimate texts for the computer.⁴¹ Narratives as they were known in the world of print have been remediated in the world of digital through the use of databases because they allow for the storage of vast amounts of information that can be accessed by users to create their own story. According to

⁴¹ Bolter, *Writing Space*, 121.

Ed Folsom, databases might be considered a new genre because they can make meaning by “presenting a subject as it has never been possible to present it”⁴²

The database was a primary tool for my project. Although *Accessible Archives* calls themselves an archive, conjuring up images of old books and documents in some large building, it is a database that has 20 different collections currently available to the public. As a tool, the database has allowed me to complete a variety of keyword searches for not only locations in the first case study, but frequency counts in the second. By searching certain words, I have been able to see across the two-year run how words were used contextually, how frequently words were used per issue, and check the accuracy of those words. I can follow the narrative of a topic such as colonization and watch as it changes in content and opinion over a two-year period by reading the issue chronologically. In addition, any future reader can do the same, which provides transparency of my work, because the archives are accessible digitally from any computer.

Changing the “Normal Historical Practice” of the Discipline

Both White and Knowles agree on five ways to operate outside of the “normal historical practice.”^{43,44} These five defining features of spatial history are: collaboration between disciplines, dynamic visualizations that produce movement, the use of computers to handle

⁴² Folsom, Ed. “Database as Genre: The Epic Transformation of Archives.” *PMLA*, 122:5, Special Topic: Remapping Genre (Oct., 2007), pp. 1571-1579.

⁴³ White, Richard. *What Is Spatial History?* 1 February 2010. Online. 15 June 2015. <<http://www.stanford.edu/group/spatialhistory/cgi-bin/site/pub.php?id=29>>.

⁴⁴ Knowles, Anne Kelly., and Amy Hillier. *Placing History: How Maps, Spatial Data, and GIS Are Changing Historical Scholarship*. Redlands, CA: ESRI, 2008. Print. 4.

vast amounts of information, open-endedness in which information can be added to, subtracted from, and reworked as need, and a focus on space.

The first is collaboration. Interdisciplinary work allows scholars to increase and enhance knowledge that can only be found through collaboration because collaboration propagates the combining of knowledge and skill. Collaboration can be interdisciplinary, or it can be a borrowing of digital tools and methods from other disciplines. Collaboration across disciplines can be seen with the creation of digital media laboratories, such as at Stanford and the University of Virginia. These are places where teams of researchers can theorize, execute, and distribute their research. On Richard White's *Spatial History Project* website, through Stanford University, he discusses the collaboration between: "historian, graduate students and undergraduates, geographers, GIS and visualization specialists, data base architects, and computer scientists." He continues to explain that although the scholars involved in the projects "can write books by themselves, ...they cannot do a spatial history project on the scale they desire alone: [they] lack the knowledge, the craft, and ultimately the time."⁴⁵ Collaboration creates more in-depth projects that create vast knowledge and information not previously accessible by historians working alone.

The second to operate outside the "normal historical practice" is to focus on visualization, which involves more than just maps, charts, and images. Visualization is the organization of meaningful information in two-or three-dimensional spatial form intended to further a systematic inquiry. David J. Staley argues a visualization is capable of standing on its own as the

⁴⁵ White, Richard. *What Is Spatial History?* 1 February 2010. Online. 15 June 2015. <<http://www.stanford.edu/group/spatialhistory/cgi-bin/site/pub.php?id=29>>.

primary carrier of information, not simply as a supplement or illustration to a written account.⁴⁶

In *Exploring Big Historical Data*, they suggest two main reasons visualizations are important.

First, visualizations are helpful and important in understanding the data initially collected because they allow researchers to get a quick overview, notice errors, and recognize immediate patterns or outliers.⁴⁷ Next, good visualizations are essential for communication. They translate

“complex data relationships into easily digestible units.”⁴⁸ As said previously, the right

visualization can replace pages of text and data, and the authors discuss three types of visualizations in their book: information visualization (bar charts, scatter plots, and network graphs), scientific visualization (visuals of items with a physical instantiation), and infographics.

In addition, visualizations can be static, dynamic, and interactive. Bill Ferster, who wrote *Interactive Visualization: Insight through Inquiry*, defines interactive visualization as “the process of letting primary sources of information communicate directly with a viewer to support inquiry in a visual, compelling, and interactive manner.”⁴⁹ He gives credit to print-based

visuals for presenting information effectively for centuries, but he believes that “the advent of interactive computer graphics, the Internet, and readily available sources of data extend that rich tradition and introduce a new kind of expression, interactive visualization.”⁵⁰ The authors

of *Tooling Up for Digital Humanities*, offer another important attribute of interactive

⁴⁶ Staley, David J. *Computers, Visualization, and History: How New Technology Will Transform Our Understanding of the past*. Armonk, NY: M.E. Sharpe, 2003. 36.

⁴⁷ Graham, Shawn, Ian Milligan and Scott Weingart. "Topic Modeling: Hands-On Adventure in Big Data." Graham, Shawn, Ian Milligan and Scott Weingart. *Exploring Big Historical Data: The Historian's Macroscopic*. London: Imperial College Press, 2016. Print. p. 163.

⁴⁸ Ibid 164.

⁴⁹ Ferster, Bill. *Interactive Visualization: Insight through Inquiry*. Cambridge, Mass: Massachusetts Institute of Technology, 2013. P.2.

⁵⁰ Ibid. 3.

visualizations: helping people find the “state” of a visualization that highlights the insight researcher’s want to share.

Richard White not only concurs with the importance of visualization, but expands this thinking to movement. In “*What is Spatial History?*” White asserts that visuals, such as maps, charts, and images, are static, and they need to be dynamic and produce movement, to be within the realm of spatial history.⁵¹ He doesn’t discard static visuals or discredit their importance for representing space; he just believes they need to produce movement to be included with spatial history. For White, movement is important. The change from a static image to a dynamic visual allows both the researcher and the reader to experience the information in an entirely new form. It visually presents information to the reader that can stand alone, and it produces information that the researcher may not have been able to obtain previously without technology. In *Placing History*, Geoff Cunfer takes the narrative of America’s Dust Bowl and transforms it using five different animated images to challenge the theory that farmers caused the Dust Bowl by misuse of the land. Through the use of GIS, geographic information system, Cunfer is able to expand his scope from two counties to 200 counties, and studying a larger area of land allows him to be able to show that the farmers’ use of the land did not increase the number of dust storms. The animations produced for his project illustrate the changes of rain fall, cropland, and dust storms over time. His fifth animation shows Kansas with its counties outlined. He then uses color to illustrate the amount of cropland used, and then he drew circles to indicates dust storms. These two pieces of information are overlaid, and the animation

⁵¹ White, Richard. *What Is Spatial History?* 1 February 2010. Online. 15 June 2015. <<http://www.stanford.edu/group/spatialhistory/cgi-bin/site/pub.php?id=29>>.

slowly progresses year by year through the decades, so the researcher and reader can see that most of the dust storms occurred in counties with unplowed acreage. Cunfer's use of a different medium, a digital medium, to investigate and present his research question is valuable. The visual and its movement over time illustrates results that could not be obtained as effectively through a static image. The medium researchers choose matters because of the way it presents and shapes the content, and according to Staley, it would be a mistake to assume that information is unchanged when translated through a different medium.⁵² Clearly, seeing the results of his research through a dynamic visual on a computer, as opposed to a static image in a book, is far more effective. Therefore, researchers must learn to choose the best medium for conveying particular types of information in order to provide an audience with the best possible information.

Since visualizations and managing data for them depend on digital components, the third way spatial history operates outside the "normal historical practice" is through the use of computers. Computers operate successfully when projects have overwhelming amounts of information, such as with databases and archives. Immense amounts of information cannot be managed as effectively through a written, narrative model, as it can through a computer. Knowles, Richard White, Cohen and Rosenzweig all support and illustrate how computers are needed to manage and organize large data sets in order to effectively create and analyze information beyond small scale projects. And, computers generate visualizations that present

⁵² Staley, David J. *Computers, Visualization, and History: How New Technology Will Transform Our Understanding of the past*. Armonk, NY: M.E. Sharpe, 2003. 21-22.

that organized information in a more straightforward manner. The study of newspapers is an example of a vast amount of information that is many times stored in an archive or database.

In *Hamlet on the Holodeck*, Murray discusses the four properties of the computer that make it a powerful medium: procedural, participatory, spatial, and encyclopedic.⁵³ She believes it is important to identify the essential properties of digital environments that will be effective for historical projects. Murray suggests four properties that will make projects in the digital realm successful. First, digital environments need to be procedural, meaning the programmer has to be able to execute a series of rules effectively and continuously. If researchers can write a series of rules that are recognizable and effective time and time again, then Murray believes the computer can be a compelling medium. Next, digital environments need to be participatory. Not only should a computer be able to exhibit rule-generating behavior, but it should also entice the user to want to participate in the behavior. The use of digital data collection allows for a transparency and interaction with the reader because the reader can examine the data collected. The reader can inspect the data and draw independent conclusions before/after reading the interpretation of the researcher. If a digital environment is both procedural and participatory, then Murray considers it interactive. Third, digital environments need to be spatial, which means it presents a space that can be moved through. Easy navigation through the site is important. If movement is difficult, then the user will be frustrated. And the last characteristic in the digital environment is encyclopedic. The ability to store and retrieve infinite amounts of information changes the way narrative can be presented or accessed by the

⁵³ Murray, Janet. *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. New York: Free Press, 1997. Nelson, Robert K. *Mining the Dispatch*. 2011. web. 1 January 2015. 71-90.

reader. Stories can have multiple viewpoints, web supplements, or user groups for participation through the use of a computer, and it is these characteristics that Murray believes make the computer an effective medium.

The last two characteristics that allow scholars to operate outside the “normal historical practice” are open-endedness and a focus on space. Unlike print-based historical projects that must be completed in order to be printed in a journal so the author can claim credit, digital projects can be in a state of continuous augmentation. This open-endedness allows for information to be added to, subtracted from, and reworked. The project can remain in the present, instead of the past, and historians can continue to write about change over time. This change over time is the focus of space; it is something human brings produce over time, such as political change, cultural change, and social change.

A final way to move outside the traditional practice of history is through data collection. The digital humanities provides a new method for telling history through data collection and machine reading. It provides a means for historians to not only study microhistory, but to expand their research into macrohistory and focus on large-scale cultural projects over longer periods of time. Using specialized tools to mine and analyze data affords researchers new opportunities to explore not only new evidence and information, but to revisit old historical evidence and information and discover new knowledge about it. According to Graham, Milligan, and Weingart, “historians must be open to the digital turn.... [because] as datasets expand into the realm of the big, computational analysis ceases to be ‘nice to have’ and becomes a simple

requirement...[that allows historians to ask] new questions of old datasets with new tools, as well as finding new avenues on previously inaccessible terrain.”⁵⁴

This previously inaccessible terrain of information is what Margaret Cohen refers to as “the great unread.”⁵⁵ It refers to all the texts that exist but are overlooked because they do not fall into a disciplinary canon. This vast amount of text is infinite, and even the most avid reader cannot complete this challenge of reading “the great unread.” But, for computers this challenge is simple. In 2005 Franco Moretti referred to this type of reading by computers as distant reading. He asserted that “close reading won’t help here, a novel a day every day of the year would take a century or so...a field this large (referring to literature) cannot be understood by stitching together separate bits of knowledge...it’s a collective system, that should be grasped as such, as a whole.”⁵⁶ Distant reading allows researchers to get an elevated view of an entire corpus through a different perspective as the computer assists in text quantification. Distant reading allows researchers to step back from a small-scale project perspective and instead consider a large-scale project perspective. It allows them to look through Graham, Milligan, and Weingart’s macroscope, a tool that looks at “the very big” and reduces its complexity until “once obscure patterns and relationships become clear”; therefore, the authors contend that “macroscopes produce textual abstractions or data visualizations” instead of direct images,

⁵⁴ Graham, Shawn, Ian Milligan and Scott Weingart. "Topic Modeling: Hands-On Adventure in Big Data." Graham, Shawn, Ian Milligan and Scott Weingart. *Exploring Big Historical Data: The Historian's Macroscopic*. London: Imperial College Press, 2016. Print. pp. 3-4.

⁵⁵ Cohen, Margaret. "Narratology in the Archive of Literature." *Representations*, 108:1 (Fall 2009), pp. 59.

⁵⁶ Moretti, Franco. *Graphs, Maps, Trees: Abstract Models for a Literary History*. New York: Verso, 2005.p. 4.

thereby offering “a stark contrast to what has become standard historical practice.”⁵⁷ And by doing so, they believe distant reading will help accelerate the process of studying “the great unread,” and as texts continue to be digitized at a dizzying rate, distant reading will become necessary.

According to Brandon Walsh and Sarah Horowitz, who wrote *Introduction to Text Analysis: A Coursebook*, when researchers use distant reading for data collection they are looking for patterns from which to draw inferences. Then, close reading allows them to drill down into the text for deeper comprehension. Hayles discusses two important reasons to use distant reading, which she refers to as machine reading.⁵⁸ The first reason is to explore large numbers of text looking for patterns, and the second is to explore a single highly patternized text. Both expose researchers to patterns in which they use their interpretive skills to analyze the text and bring forth new information. The process between machine reading and close reading is symbiotic. But, machine reading is a concern for those who believe it supersedes close reading. Todd Presner, who wrote *HyperCities: Thick Mapping in the Digital Humanities*, “insists the shift [to machine reading] should be understood contextually as part of a long history of humans adapting to new technological possibilities and affordances....[because these] transformations are nothing new...[because] humans and tools are continuously modifying each other” (qtd. In

⁵⁷ Graham, Shawn, Ian Milligan and Scott Weingart. "Topic Modeling: Hands-On Adventure in Big Data." Graham, Shawn, Ian Milligan and Scott Weingart. *Exploring Big Historical Data: The Historian's Macroscopic*. London: Imperial College Press, 2016. Print. p. 1.

⁵⁸ Hayles, Katherine. *How We Think: Digital Media and Contemporary Technogenesis*. University of Chicago Press: 2012. Print. p. 31.

Hayles 30). Supporting Presner, Hayles says, “Rather than one threatening the other the scope of each is deepened and enriched by juxtaposing it with the other.”⁵⁹

With the digital turn, the “normal practice of history” has begun to transition into a new way of *doing* history. The emergence of digital technology has allowed scholars to move past the printed book or article into the digital realm because different methods now exist to research and present evidence, and scholars need to carefully consider which medium and method is the best for their type of project.

The Digital Humanities and Freedom’s Journal

Almost 30 years after the Internet and the World Wide Web provided scholars with a new medium to use for research, the digital humanities has become a widely recognized interdisciplinary field of study. A large variety of projects over a multitude of disciplines using a variety of digital tools have been produced in the last two decades. The written word has not been replaced by technology; instead, it has progressed into new forms of communication.

Katherine Hayles contends that print will not die; instead, the digital culture and textual culture should coexist. Hayles states that society thinks through, with, and alongside media, and are confronting the differences that digital media make in their discipline.⁶⁰ She believes researchers need to learn to discern which medium provides the most effective use for a project and then find the right tool in the digital tool kit to perform the task. These choices will allow researchers to make conscious decisions of media for more effective communication of

⁵⁹ Ibid.

⁶⁰ Hayles, Katherine. *How We Think: Digital Media and Contemporary Technogenesis*. (University of Chicago Press, 2012). 1.

their messages. The written word should not be a default in any academic discipline. David J. Staley refers to this choice as the “information design decision.”⁶¹ This denotes choosing one medium over another in order to effectively communicate or research information.

The Internet has allowed researchers and scholars to take this paper-based inheritance of information and data and make it a vital part of society’s knowledge. It has changed the original environment of texts and increased opportunities for knowledge through digital. It has alleviated the physical space required to house printed material, it has changed how society thinks about text, it has allowed easier access to information, and it has offered all of society access. So as the digital humanities continues to work through the process, and more progress is made through digital scholarship.

The digital humanities allows the story of *Freedom’s Journal* to be told from a different perspective. It tells the stories about the past, by means of newly-discovered evidence from digital tools, connecting occurrences that seem unrelated, or revisiting old stories with a fresh perspective. It also generated questions that might otherwise go unnoticed, and it substantiated stories that existed. Digital narratives are the remediation of print narratives, and both have their place in society. The secret is figuring out which medium is the most effective for the goals of the project. Newspapers are important primary sources that preserve information that helps reconstruct occurrences, document history, and facilitate society’s understanding of what took place during certain time periods in history. It’s not just the researcher writing the history based on primary source material that’s important, it is also the

⁶¹ Staley, David J. *Computers, Visualization, and History: How New Technology Will Transform Our Understanding of the Past*. (Armonk, NY: M.E. Sharpe, 2003). 19-22.

artifact itself, which can now be used for advance research by employing digital technologies. The research *Freedom's Journal* offers through the digital realm has not been explored. The digital realm offers a new way to study primary source material that will provide new historical information about this artifact. Information discovered with digital technology through my two case studies (geolocation and topic modeling) will add to Bacon's⁶² research not only by accessing different data, but by presenting a different kind of representation of the data, which will increase society's knowledge of *Freedom's Journal* and its contribution to America's history. By combining both print and digital research methodologies, new historical information has been discovered that illustrates how the first African American newspapers fought against the influences of white society in the early 19th century. It illustrates why *Freedom's Journal* was, and still is, a valuable and significant document.

⁶² Bacon, Jacqueline. *Freedom's Journal: The First African-American Newspaper*. Lanham, MD: Lexington, 2007.

References

- Ayers, Edward L. "The Pasts and Futures of Digital History." Virginia Center for Digital History, 1999, accessed 05 Oct. 2012. <http://www.vcdh.virginia.edu/PastsFutures.html>
- Ayers, Edward L., and Thomas III, William G. "The Differences Slavery Made: A Close Analysis of Two American Communities." Virginia Center for Digital History, 1999, accessed 05 Oct. 2012. <http://www2.vcdh.virginia.edu/AHR/>
- Bacon, Jacqueline. *Freedom's Journal: The First African-American Newspaper*. Lanham, MD: Lexington, 2007.
- Bolter, J. David. *Writing Space: Computers, Hypertext, and the Remediation of Print*. Mahwah, NJ: Lawrence Erlbaum Associates, 2001.
- Bush, Vannevar. "As We May Think." *The Atlantic Magazine*, July 1945. Web. 15 Oct 2011.
- Chartier, Roger, and Cavallo Guglielmo. *A History of Reading in the West*. Great Britain: Blackwell Publishers, 1999.
- Cohen, Daniel J., and Roy Rosenzweig. *Digital History: A Guide to Gathering, Preserving, and Presenting the past on the Web*. Philadelphia: University of Pennsylvania Press, 2006.
- Cohen, Margaret. "Narratology in the Archive of Literature." *Representations*, 108:1 (Fall 2009), pp. 51-75.
- Derrida, Jacques. *Of Grammatology*, *Engl. trans.* 1976.
- Flusser, V. Does writing have a future? (Trans. Nancy Ann Roth). Minneapolis: University of Minnesota Press, 2011.
- Folsom, Ed. "Database as Genre: The Epic Transformation of Archives." *PMLA*, 122:5, Special Topic: Remapping Genre (Oct., 2007), pp. 1571-1579.
- Ferster, Bill. *Interactive Visualization: Insight through Inquiry*. Cambridge, Mass: Massachusetts Institute of Technology, 2013.
- Graham, Shawn, Ian Milligan and Scott Weingart. "Topic Modeling: Hands-On Adventure in Big Data." Graham, Shawn, Ian Milligan and Scott Weingart. *Exploring Big Historical Data: The Historian's Macroscope*. London: Imperial College Press, 2016. Print.
- Hayles, Katherine. *How We Think: Digital Media and Contemporary Technogenesis*. University of Chicago Press: 2012. Print.
- Ignatow, Gabe, and Rada Mihalcea. *Text Mining: A Guidebook for the Social Sciences*. SAGE Publication, 2017.

- Knowles, Anne Kelly., and Amy Hillier. *Placing History: How Maps, Spatial Data, and GIS Are Changing Historical Scholarship*. Redlands, CA: ESRI, 2008. Print.
- McLuhan, Marshall. *Understanding Media*. Gingko Press, 2003.
- Moretti, Franco. *Graphs, Maps, Trees: Abstract Models for a Literary History*. New York: Verso, 2005.
- Murray, Janet. *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. New York: Free Press, 1997. Nelson, Robert K. *Mining the Dispatch*. 2011. web. 1 January 2015.
- Ong, Walter J. *Orality and Literacy: The Technologizing of the Word*. London: Methuen, 1982.
- Robichaud, Andrew and Cameron Blevins. *Tooling Up for Digital Humanities*. Stanford University. http://toolingup.stanford.edu/?page_id=3
- Staley, David J. *Computers, Visualization, and History: How New Technology Will Transform Our Understanding of the past*. Armonk, NY: M.E. Sharpe, 2003.
- Valley of the Shadow: Two Communities in the American Civil War, University of Virginia Library, (<http://valley.vcdh.virginia.edu/govdoc/popcensus.html>).
- Vandendorpe, Christian. *From Papyrus to Hypertext: Toward the Universal Digital Library*. Chicago: University of Illinois Press, 1999.
- Walsh, Brandon and Sarah Horowitz. *Introduction to Text Analysis: A Coursebook*. <http://walshbr.com/textanalysiscoursebook/assets/introduction-to-text-analysis.pdf>
- White, Richard. *What Is Spatial History?* 1 February 2010. Online. 15 June 2015. <<http://www.stanford.edu/group/spatialhistory/cgi-bin/site/pub.php?id=29>>.

CHAPTER THREE

HOW *FREEDOM'S JOURNAL* CREATED SPACE IN THE EARLY 19TH CENTURY

Introduction

Newspapers have long been a medium that allows researchers to study space and place, but sometimes the sheer volume makes the process difficult. This case study uses digital tools to discover and map the production of space created by the text in the first African American newspaper, *Freedom's Journal*, between 1827-1829. With the use of data mining, I am able to quantify and illustrate how *Freedom's Journal* created a view of the world for its readership – a view different from that of white newspapers – during the early 19th century using locations. My research looks at how *Freedom's Journal* used locations printed within the newspaper to provide its readership a specific view of the world and how they fit into it. This research presents global, national, regional, and local locations the editors felt were important to their readership. It shows how newspapers are able to construct a reality within their pages by using certain locations, while not using others. Through content analysis of the locations provided by data mining, my research examines how *Freedom's Journal* constructed a space for African Americans and provided a public sphere for their concerns.

The purpose of this chapter is to use digital tools that allow me to combine close reading with machine reading and analyze how place names (the locations) within the newspaper (1) provided the African American community with an imagined community of other black people, (2) constructed an imagined geography for them, and in doing so, (3) constructed a space for them. By combining both print and digital research methodologies, new historical information was discovered that illustrates how the first African American newspaper fought against the

influences/powers that were shaping the early 19th century and provided a view of the world and created a space for the black community through the locations printed in the newspaper.

In this paper, I will provide a brief introduction of space and place, expanding on the material from chapter 2, that emphasizes the newspaper's role in using locations to create space for the black readership of *Freedom's Journal*. Next, I will provide the methodology I used to obtain my results and explain the digital tools I used for this case study. After which, I will present the results of my project's research through a series of visualizations. And last, I will conclude with a broader reflection of digital tools within the humanities and how they can be used to study historical newspapers.

How Newspapers Created Space

Two decades after the Haitian Revolution and 35 years before the Civil War, *Freedom's Journal*, a medium-sized weekly, published for two years and 103 issues from 1827-1829. During those two years, its readership read about locations locally, nationally, and globally that the editors deemed of interest to the black community. Within its two years of publication, readers learned about the history of Hayti and the current and continuing establishment of its republic since the Haytian Revolution. They also discovered that of the 1612 black people sent to Sierra Leone from England for colonization, 926 had died, 42 had been killed, and 32 returned to England as invalids. Locally, they read about a fire in Norfolk, Virginia that caused \$80,000 in damages; robbery and animal cruelty charges in Washington, DC; and a breach of marriage promise in Onondaga County, New York in which the bride-to-be collected \$600 after her suitor of eight years rescinded his marriage proposal. They were continuously updated on local, national, and

global politics from various locations. All of these localities merged into what Cameron Blevins refers to as a “constellation of locations” that constructs a “mental map of the world.”⁶³ These locations helped the readership of *Freedom’s Journal* understand its place in the larger world. By founding the first black newspaper and choosing which stories and which locations to print in *Freedom’s Journal*, the editors exposed their readership to not only the black community around them, but black communities world-wide, and created space for them that helped shape and create a black public sphere for a community that was struggling to construct an identity.

Because printing presses allowed for mass distribution and increased communication, newspapers were able to provide their readership with a much wider view of the world around them. This created a cultural identity because newspapers provided their readership with awareness — their place in a larger, global domain. Newspapers provided significant and continued social impact by providing information for the public sphere. Readers in the U.S. could obtain information about global areas they may never see, such as Africa. Newspapers set the stage for community participation because the public sphere was where opinions and values were created. Therefore, readers could take the information they obtained about Africa and form opinions about it and discuss it. This allowed newspapers to provide significant and continued social impact by providing information for the public sphere.

In addition to providing, validating, and preserving information, newspapers as a medium create space, and space can broaden and transform a society’s understanding of the past.

⁶³ Blevins, Cameron. Space, Nation, and the Triumph of Region: A View of the World from Houston. *The Journal of American History* June 2014, pp 122-146.

Societies produce space; space in turn shapes those societies. This concept comes from Henri Lefebvre, who asserted that space is socially constructed, and comprehending the process of spatial construction is necessary in order to extrapolate information about the society it shapes (Lefebvre). Since its inception in the 1600s, newspapers have played a prominent role in not only recording and preserving history, and helping create a public sphere, but in producing space. Newspapers create space by creating an environment through which its readership experiences shared information. They create an image of local, regional, national, and/or global communities for their readers, and by doing this, newspapers create space within those communities, and that space creates a sense of place within the context of the world. In addition, newspapers also create space in relation to the powers that shape those communities, and they influence how a society sees the world by printing certain locations while foregoing others, by discussing certain groups while ignoring or disparaging other groups. They help society understand the world and make it meaningful; and in doing so, they use space as a tool to positively or negatively, consciously or unconsciously impact communities. They socially construct space. By studying how a newspaper creates space, one can construct an understanding of society. When newspapers continue to print (or not print) information about certain locations or write about certain communities, those locations and communities become known (or stay unknown) to the newspaper's readership. In addition, this printed information can create a positive space, or this information can create a negative space. Space that is made meaningful, becomes a place. According to Tim Cresswell, place can be created by people with more power, such as politicians and the media. He illustrates this concept through Kay Anderson's example of Chinatown, in which the name Chinatown was

associated with pollution and disease, and Benjamin's Forest's example of West Hollywood, in which the gay community was able to create a positive identity for themselves connected to West Hollywood.⁶⁴ Many scholars focus on place as a physical location. However, Cresswell maintains that place is not "just a thing in the world but a way of understanding the world" so a place is a "rich and complicated interplay of people and the environment."⁶⁵ Therefore, place is how people experience the world and make it meaningful. Cresswell believes place is a meaningful site that combines *location*, a point in space with a specific set of coordinates; *locale*, a material setting for social relations – the way a place looks – visible, tangible aspects of a place; and *sense of place*, the feelings and emotions a place evokes.⁶⁶ Cresswell looks at how place works in a world of social hierarchies, in which place can be seen and used in a positive or negative manner as a tool "in the creation, maintenance, and transformation of relations of domination, oppression, and exploitation."⁶⁷ Newspapers are part of this social hierarchy, and they have the authority and the influence to make space meaningful, thereby changing it into place, thereby influencing its readership because place can be a shared experience through media.

By creating visual images of people and places, newspapers create for their readership what Benedict Anderson defines as imagined communities and what Edward Said refers to as imagined geographies.^{68,69} Borrowing from Benedict Anderson, newspapers construct imagined

⁶⁴ Cresswell, Tim. *Place: A Short Introduction*. (Blackwell Publishing, 2004). 27-29.

⁶⁵ Cresswell, Tim. *Place: A Short Introduction*. (Blackwell Publishing, 2004). 11.

⁶⁶ Cresswell, Tim. *Place: A Short Introduction*. (Blackwell Publishing, 2004). 1.

⁶⁷ Cresswell, Tim. *Place: A Short Introduction*. (Blackwell Publishing, 2004). 29.

⁶⁸ Benedict, Anderson. *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, (London, 1983).

⁶⁹ Said, Edward, *Orientalism*, (New York, 1979), 53-55.

communities, in which the perception of the community is created by the community as it perceives itself as part of a cohesive group.⁷⁰ The members of the group will never meet most of their fellow members, but they know they exist. Anderson argues that one of the main causes of the creation of imagined communities is the emergence of the printing press under a system of capitalism. The print media continuously and consistently plays a role in how national identity and consciousness are formed and shaped. Anderson's concept of imagined communities fits within the early 19th century African-American community because this community is beginning to form. During the early 19th century, a black public sphere is taking shape. Back in Africa, one unified nation did not exist. Africa was inhabited by numerous indigenous tribes each with their own language, their own tribunal system, and their own customs, and each possessing their own territory, which they protected from other tribes. However, once Africans were brought to the western world, an imagined community would slowly start to form. In the early 19th century, the leaders in black American communities began to realize the power of language, specifically the written word, and they would use it to create, strengthen, and shape the black society's identity. By doing this, they would create an imagined community within the populace of African Americans, and knowing there were other members in other black communities living similar lives would strengthen African Americans and enable them to fight against the dominant public. Their weapon of choice would be literacy, and *Freedom's Journal* would be one way to not only disseminate their message, but shape and support their community.

⁷⁰ Benedict, Anderson. *Imagined Communities: Reflections on the Origin and Spread of Nationalism*, (London, 1983).6.

In addition to imagined communities, and borrowing from Edward Said, newspapers can construct imagine geographies, in which the perception of identity comes from outside the community, not within, like in imagined communities.⁷¹ According to Anderson and Said both of these concepts are socially constructed. A newspaper's use of geography is part of the active social construction of the world because it chooses which locations and communities to print and which not to print. Newspapers decide what is important and for what reason. By doing this, they create meaning and importance for their readers. White newspapers in the early 19th century offered their readership, who existed in their own imagined community, a particular imagined geography of certain locations, such as Africa and Hayti, that would be far different from the imagined geography that would come from *Freedom's Journal*. Instead, *Freedom's Journal* provided a different sense of place than the white newspapers of the time period. For example, Hayti was written about in 129 articles in *Freedom's Journal*, in which readers read about its history, its politics, and its pro-education stance. These articles constructed a positive image of this country and provided a model of African innovation and industrialization. *Freedom's Journal* created a space for the African American community, created a space in which its readers experienced an imagined community. In addition, they also created an imagined geography for their readership that defined certain locations the editors viewed as important. And, through the introduction of place – locations that were important to the existence of the black community – *Freedom's Journal* expanded this imagined community to help create its own identity.

⁷¹ Said, Edward, *Orientalism*, (New York, 1979), 53-55.

Since newspapers in the 19th century were a primary shaper of space and influenced how society saw the world, by measuring and mapping the frequency and distribution of the 354 place names in the first ten issues of *Freedom's Journal*, the newspaper began to create an imagined geography for its readers. Those who read *Freedom's Journal* were exposed to various place names locally, regionally, nationally, and globally on a weekly basis for two years. Since all 103 issues of *Freedom's Journal* are accessible through the database *Accessible Archives*, and because of the newspaper's size, it is a perfect collection to study with both traditional and digital means. It will allow for both traditional print research and digital research to be used and combined for a final product.

The Study of Spatial History

My research pulls from the field of spatial history, which “examines human experience of social and physical space” and is informed by Richard White and Anne Kelly Knowles.^{72,73} Spatial history is a means of doing research which focuses on space and seeks to understand and illustrate how spatial relationships produce change. In addition, spatial history provides information that might otherwise not be discovered through traditional research methods. Both White and Knowles agree on five ways in which spatial history operates outside of the “normal historical practice.” These five defining features of spatial history are: collaboration between disciplines, dynamic visualizations that produce movement, the use of computers to

⁷² White, Richard. “What is Spatial History?” Spatial History Lab, Stanford University. Working paper; Submitted 1 February 2010. <http://www.stanford.edu/group/spatialhistory/cgi-bin/site/pub.php?id=29>

⁷³ Knowles, Anne Kelly., and Amy Hillier. *Placing History: How Maps, Spatial Data, and GIS Are Changing Historical Scholarship*. Redlands, CA: ESRI, 2008. Print. 4.

handle vast amounts of information, open-endedness in which information can be added to, subtracted from, and reworked as need, and a focus on space.

This project builds on previous spatial history projects by using technology, in this case geolocation, to analyze the use of text within a historical newspaper to discover how it created space for the African American community. Computational analysis and data mining allow for vast amounts of information within historical newspapers to be accessed, processed, and examined. Using digital tools and methods offers a new way to study vast amounts of text to reveal latent patterns and information that might otherwise not be discovered.

This particular case study was informed by the recent work of two spatial history projects by Cameron Blevins and Carrie Buchanan, who both use spatial history to study historical newspapers. Blevins looks at how space was produced by the *Houston Daily Post*.⁷⁴ It focuses on how late 19th century America looked to its readership through the lens of the *Houston Daily Post*. Buchanan looks at how two Canadian newspapers constructed a sense of place about the localities they served by using the form and content of their newspapers.⁷⁵

Historical newspapers are a particularly good source for studying the historical production of space by communities, and this case study illustrates two of the main features Knowles and White refer to about spatial history. The first is a focus on space; the second is the use of computers to handle vast amounts of information to discover hidden patterns. First, this case study focuses on space through the use of place names across the world within the first African

⁷⁴ Blevins, Cameron. Space, Nation, and the Triumph of Region: A View of the World from Houston. *The Journal of American History* June 2014, pp 122-146.

⁷⁵ Buchanan, Carrie. Sense of Place in the Daily Newspaper. *The Journal of Media Geography*. Spring 2009, pp 62-84.

American newspaper. Second, it uses computers to handle vast amounts of data. Historical newspapers can be problematic because of the sheer size of their production. Even though *Freedom's Journal* isn't an enormous corpus, digital tools were still employed to manage the text and also discover any latent patterns. The first tool employed for this research was a digital archive. Conveniently, *Freedom's Journal* is part of *Accessible Archive's* digital archive.

Accessible Archives is a database that allows for full-text search capabilities online of primary source material. In addition, digital images of the newspaper are accessible. This, alone, was incredibly beneficial because the text has already been digitized and converted to a machine-readable format through Optical Character Recognition (OCR), in which the permanent print words on the pages of the newspaper are transformed into digital language that is easily searchable. Having access to *Accessible Archives* meant already having text that could be machine-read.

Methods

All 103 issues of *Freedom's Journal* are accessible through the database *Accessible Archives*, and because of the newspaper's manageable size, it is a perfect collection to study with both traditional and digital means. It allows for traditional print research and digital research to be used and combined for a more accurate final product.

To measure the frequency and distribution of the place names that existed within *Freedom's Journal*, I used a combination of close reading and machine reading. *Freedom's Journal* ran weekly for two years; during this time, it printed 2047 articles on 816 pages. For this project, I focused on place names in the first ten issues of the newspaper for preliminary results.



Figure 1. Publications listed by date after a search of place names.

If the results looked promising, then more research could be done in the future in which all place names could be found and studied. To start, I read carefully the PDFs of the first ten issues extracting all place names. Those issues totaled 354 place names. I then took those place names and used the term frequency approach, in which I employed the search tool in the *Accessible Archives* database to count the number of articles in which the place names occurred in the 103 issues of the paper. This approach showed that the 354 place names crossed nine regions, 43 countries, and 251 cities. Each Boolean search in *Accessible Archives* sorts the place name by article, which can then be sorted via publication date or relevance (Figure 1). After I acquired the place names, I separated them in an Excel spreadsheet by regions, countries, states, counties, and cities (Figure 2). The first column is the place name in order of frequency, followed by the region within which it resides. The third column shows the actual frequency number, and then the rest of the columns show each issue by date. Within each issue, the

number of articles the place name occurs is shown and coded by color. This chart allows readers to see the frequency across time. For example, the place name Africa was used in 205 articles throughout the two-year run of the newspaper. Within the first 13 issues that can be seen in Figure 2, there is only one issue in which the place name was not used. During ten of the 13 issues, the place name Africa was used at least twice per issue, with two of those issues showing the place name was used at five articles. From the color coding, it is evident that many place names were used once or twice per issue, but Africa was used in five articles in two different issues during the first three months.

The other benefit of the Excel spreadsheet was for grouping place names by region. I could group the place names by the nine regions within which I used for geographical purposes. By using the second column, I could see which place names fell into which regions and count the number of place names per region. For example, the region of Africa had ten locations within it, such as Sierra Leone and Algiers. By grouping, I could see all of these locations and the number of articles within which they fell. This allowed me to calculate the number of place names within Africa and also the number of articles those place names fell. Within Africa, and including the place name Africa, there were 385 place names.

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	
			Articles	3/16/1827	3/23/1827	3/30/1827	4/6/1827	4/13/1827	4/20/1827	4/27/1827	5/4/1827	5/11/1827	5/18/1827	5/25/1827	6/1/1827	6/8/1827
16	New York	US	264	5	7	4	1	1	2	2	5	3	2	2	4	4
17	England	England	215	4	3	0	3	2	2	2	1	1	2	3	1	2
18	Philadelphia	US	214	4	2	1	3	3	2	3	2	2	4	1	2	1
19	Africa	Africa	205	5	2	2	3	4	4	2	2	0	3	1	1	5
20	Earth	Earth	200	1	2	4	2	3	1	2	3	0	2	1	4	2
21	United States	US	177	3	3	1	1	1	2	1	1	2	4	1	1	1
22	London	England	159	3	4	4	2	1	1	2	6	0	3	3	0	1
23	Europe	Europe	112	0	2	1	1	3	2	2	2	1	1	1	1	0
24	Providence	US	108	1	3	1	2	0	1	0	2	1	1	4	2	3
25	France	France	99	3	2	1	2	1	0	2	2	2	1	1	1	0
26	Virginia	US	88	2	0	0	1	1	0	0	0	0	2	2	1	1
27	Charleston	US	78	1	1	1	0	1	1	2	1	1	3	1	1	2
28	Ohio	US	72	0	0	0	1	0	2	0	0	0	0	1	2	0
29	America	US	71	1	0	2	1	1	1	1	0	1	1	2	0	0
30	Albany	US	68	2	1	2	1	0	2	0	1	1	1	1	1	1
31	Hayti	Carribbee	68	2	1	0	0	1	1	4	3	1	1	0	1	0
32	Liberia	Africa	63	1	0	0	0	0	0	1	0	0	0	0	0	0
33	Paris	France	61	0	2	0	1	0	0	0	1	3	0	1	0	1
34	Columbia	US?	60	1	1	0	1	0	2	0	0	0	1	1	1	0
35	Indies	Carribbee	60	2	1	1	1	1	0	0	0	1	0	2	0	0
36	Liverpool	England	60	3	2	1	2	2	0	1	1	1	1	0	0	2
37	Pennslyvania	US	57	1	1	0	0	0	0	0	0	0	1	1	1	1
38	Maryland	US	54	0	0	0	3	0	0	1	0	1	2	1	1	1
39	Great Britain	England	51	0	1	0	0	3	0	0	1	2	0	1	0	0
40	Washington, DC	US	51	0	0	0	1	0	0	0	1	1	1	0	0	0
41	West Indies	Carribbee	51	1	1	1	1	1	0	0	0	1	0	2	0	0
42	Spain	Spain	50	1	0	0	2	0	2	0	0	1	0	0	0	1
43	Georgia	US	47	0	0	0	0	0	1	0	1	1	0	0	0	0
44	New Orleans	US	46	1	2	1	1	0	0	0	1	2	2	0	1	0
45	Greece	Greece	43	0	1	1	0	1	1	0	0	0	0	1	0	0
46	Massachusetts	US	43	1	1	1	0	1	0	0	0	0	1	0	0	0

Figure 2. List of place names, number of articles mentioned, and dates.

One of the challenges of using machine reading is the inability of the machine to read for context. To remedy this issue, I returned to close reading with the help of machine reading. After the data was collected, I went through each place name and tracked it through the database to make sure it referred to a location, and not some other entity. For example, Canada was not only a place name for the country, but also the name of various ships and a construction company. Out of the 108 hits for the place name Providence, as in Providence, Rhode Island, only 48 of them were for the city. The rest connected with the divine providence, being careful, or the divine care of God. In addition, place names like Columbia could be in South Carolina, Ohio, or New York. Although machine reading was efficient and reduced the time required for searching, machine reading alone could not accurately complete this project.

Results

Of the 354 place names searched in the first ten issues of *Freedom's Journal*, nine regions emerged: North America, South America, Europe, Caribbean, Oceanic, Asia, Russia, Middle East, and Africa (Figure 3). Place names in North America were mentioned the most (2531), followed by Europe (1383), Africa (385), and the Caribbean/West Indies (322). It is unsurprising that areas in North America, Europe, and Africa make up a majority of places names because of their connections to slavery. Within these nine regions are the place names of 43 countries. Within the countries, 296 place names for cities, states, or provinces are named. Of the 354 place names searched, only 54 of them are mentioned more than 25 times, which would be on average of once a month. The majority of locations (217) were mentioned less than quarterly (or eight times). One hundred and one of them were only mentioned once.



Figure 3. Global view of the place names used in Freedom's Journal.

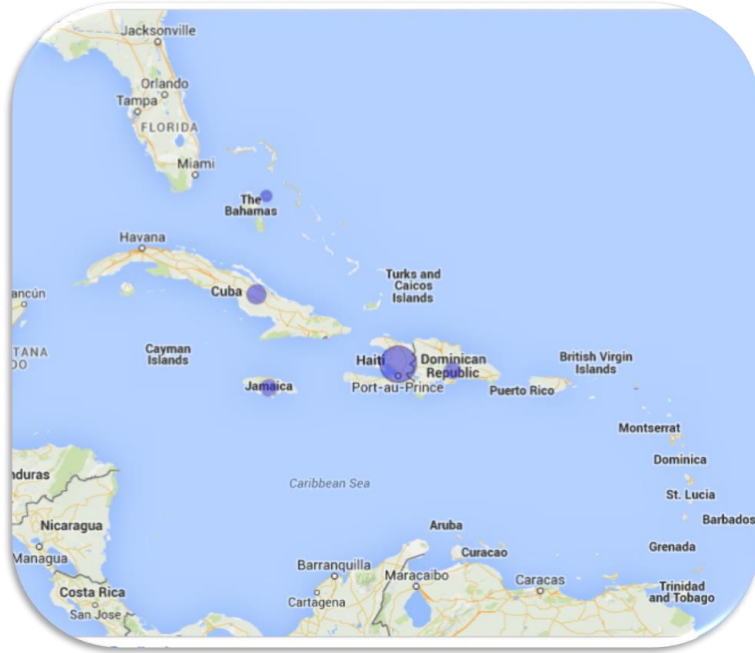


Figure 4. Place names in the Caribbean/West Indies.

Caribbean/West Indies

Though geographically the smallest of the four highest ranking regions, the Caribbean/West Indies loomed large in *Freedom's Journal* as a significant area for its readership. Four of the islands were mentioned more than 25 times during the two-year run: Hayti (129), Cuba (43), Jamaica (30), and the Dominican Republic (27). See Figure 4. The Caribbean/West Indies area was connected to slavery. As the Caribbean/West Indies was colonized and sugar plantations grew, slaves became the labor force used to cultivate crops. The islands became part of the Atlantic slave trade route and millions of African slaves were forcibly brought to the islands during the 18th and early 19th centuries. Slave uprisings were fairly common during those centuries with Cuba and Jamaica having a majority of them. However, Hayti was the first to gain

its independence in 1804 after 13 years of fighting during the Haitian Revolution, in which the slaves rose up and fought the Spanish, French, and British to gain their independence.

The place name Hayti or the place names of the cities within Hayti total 7 locations within 129 articles in the newspaper (Figure 7). Hayti is mentioned 68 times, with Port-au-Prince (42) being the city mentioned the most. The main topics that appear are politics (19), slavery (11), history (10), counterfeit money (10), present day news (9), colonization (6), education (3), and shipwrecks (3). Otherwise, the remaining articles fall into the category of poetry or miscellaneous. Most of the articles focus either on Hayti's past or is present.

The history of Hayti was a popular topic of interest for *Freedom's Journal*. The historical coverage of Hayti revolved around the Revolution; the former king, Henri Christophe, and his wife; and Toussaint L'Ouverture, leader of the Haitian Revolution. For blacks, the country of Hayti symbolized freedom. By the time *Freedom's Journal* began publication the Haitian Revolution was two to three decades in the past, but the resonance of its effects and newsworthiness for the black community still lingered.

For many in the black community the importance of Hayti resided within the knowledge that somewhere black men fought for liberty and were now building their own black society. In addition, the editors of *Freedom's Journal* provided information about Toussaint L'Ouverture, who was the leader of the revolt. For many blacks, he became a heroic figure because he, too, was a slave, but he was a slave who led a rebellion, negotiated a deal with France, and brought self-government to the blacks within Hayti. He may have died two decades before *Freedom's*

Journal printed its first issue, but his tale of victory filled its pages and gave blacks in America hope for the future.

Although Hayti's history and revolt made for fascinating reading, the two editors kept their readership apprised of present-day politics and news within Hayti through 47 articles. Many articles focused on tariffs, laws, and treaties in Hayti or with other countries. Some articles mentioned the economical state of the country after the revolution, while ten others made mention of the counterfeit money scheme the island was dealing with. Six articles were about Jean Pierre Boyer, the current Haitian president, and four of them explained the conspiracy taking place against him. Nineteen articles focused on present-day politics. Three articles focused on education and were advocating for schooling for all of black society, both free and enslaved. These articles allowed the readers of *Freedom's Journal* to see the progress Haitians had made since the revolution. It also showed a free black community operating independently, which gave hope to African Americans, but also illustrated to whites the ability of blacks to create and maintain a thriving society. A representation that was offset by articles about Hayti in white newspapers.



Figure 5. Place names in Africa.

Africa

Africa is the only continent in the top ten, and during the 1820s it is the culmination of all that is slavery. It is one leg of the African slave trade in which Africans are captured and sent to either the West Indies or America, and is the pinnacle of the colonization movement in the early 19th century as America tries to decide what to do with its free black population. In the first issue of *Freedom's Journal*, the editors made it clear that “everything that relates to Africa, shall find a ready admission into [their] columns.”⁷⁶ And so, Africa had 16 place names in a total of 180

⁷⁶ *Freedom's Journal*, March 16, 1827.

articles (See Figure 5); the place name Africa, itself, was mentioned in 205 articles for a total of 385 articles. Liberia (63), Egypt (34), and Sierra Leone (24) are the top three countries in Africa that appeared most often in articles concerning the continent. The main four countries mentioned in Africa are Liberia, Sierra Leone, Ethiopia, and Egypt (19). There are 53 articles that use the place name Egypt and/or Ethiopia. There are 87 articles that reference Liberia or Sierra Leone. As with Hayti, the articles focus on its past, referencing Egypt and Ethiopia, or present, referencing Liberia and Sierra Leone.

During the early 19th century, many white newspapers painted Africa as an uncivilized continent in which the African inhabitants were lazy and barbaric, and western histories of Africa told of a people who had contributed nothing noteworthy to civilization. To counteract this representation of African heritage and educate their readership on their heritage, the editors printed articles that showed an honorable and empowering history of Africans, and they started with Ethiopia and Egypt. The articles with the place names Ethiopia or Egypt concentrate on the ancient history of these countries and their connection to Africa. Articles in *Freedom's Journal* linked to the past of these two countries to illustrate a strong, honorable heritage for African Americans to associate with. These articles used historical documents and text from the Bible to create an admirable history for the black community to associate with. A smaller number of articles focused on bringing Christianity to Africa and showing the readership current information by printing travelogues of explorers.

The articles trace the origins of Africans to Egyptians, and then Egyptians to Ethiopians. They claimed and illustrated associations with both ancient Egyptian and Ethiopian ancestry. The

articles discussed the cultures and resemblances between the inhabitants of these countries and African Americans; they trace the emigration of Egyptians to Greece. Other articles argued that the Egyptian and Ethiopian cultures influenced Greece and Rome, which influenced western cultures; therefore, Africa was the foundation for western culture.

Some articles pointed out the difference between African American slavery and the slaves in ancient Egypt. They argued that American slavery was different from ancient Egyptian slavery because one was political and the other personal. The articles illustrated the differences, such as Egyptian slaves having a separate life outside of slavery, having families they were not separated from, and having the ability to retain their own customs and religions.

Within some articles was the counterargument for the denigration of these ancient countries. It was argued that history was cyclical. Civilizations rose, fell, and rose again to power. Text within some articles blamed the slave trade and western society for Africa's demise, but believed Africa would once again rise up, giving current African Americans hope for the future.

If Ethiopia and Egypt were used to paint an honorable past for African Americans to associate with, then Liberia and Sierra Leone were used to show the present-day Africa. Liberia and Sierra Leone were the two most often documented countries, which makes sense because both countries were at the heart of the colonization movement. The editors printed articles praising Liberia for the success and progress of its colony, and other articles described the area and the people in a positive manner, such as a good climate and progressive cultural inhabitants.

However, there were the occasional negative articles that informed the readership of deaths or people returning to America in poor health. Others, focused on the terrible climate. Four

articles were dedicated to Abduhl Rahahman, who was the son of an African ruler who was sold into slavery. He was eventually liberated by his master with the agreement he emigrate. He and his family left Virginia for Liberia. Six articles revolved around religion, specifically Christianity as a means to disseminate civilization and religion throughout the continent.

Colonization was one of the topics that illustrated the editors' desire to use the newspaper as a public forum. Of the 103 articles in which colonization was mentioned, 37 articles were connected to the American Colonization Society (ACS) or the topic of colonization. Those submitted by members of the ACS, such as John H. Kennedy, portrayed Liberia and Sierra Leone in a positive manner. However, articles containing text against colonization from various readers of the newspaper were also printed. *Freedom's Journal* offered African Americans a forum from which to have their opinions heard. According to the editors, African Americans were against colonization three to one. Despite this, the pages of *Freedom's Journal* continued to be a place of discussion about colonization. The arguments from the African American community ranged from sending free people of color to Africa because black Americans would never receive fair treatment in America, to those who felt they should remain to fight against slavery and for civil rights. Arguments from the white community ranged from sending blacks to Africa to rid America of them, to arguing blacks would be happier in Africa, to believing black emigrants could help with teaching Christianity to Africans. When politicians made any of those arguments, the black community retorted with the belief that removing free people of color would only strengthen slavery. This open discourse about colonization in the pages of *Freedom's Journal* was a far cry from the more biased beliefs of white newspapers in which a forum for discussion did not exist.

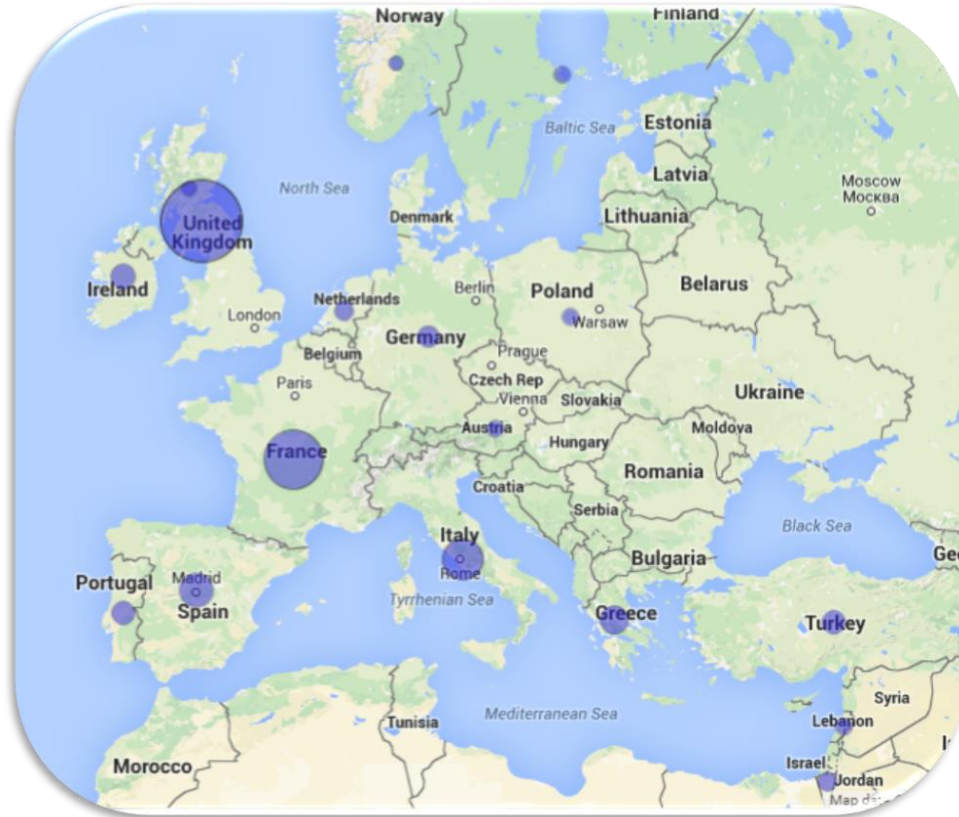


Figure 6. Place names in Europe.

Europe

In the early 19th century, the British Empire was emerging as one of the world's leading powers, so it is reasonable that newspapers in America would print information about it. It is also the birthplace of the industrial revolution. During the first half of the century, the industrial revolution was transforming England as mechanization was taking over how goods were manufactured, and transportation was increasing as railroads made it easier for people to move about the country. The beginning of the 19th century saw England transform from a

predominantly agrarian, rural society to an urban center. In Europe, the most important country is England. Within England, London is the most important city, and it is mentioned in 159 articles in *Freedom's Journal*. At this point in time, London is also the largest city in the world.

Excluding America, England/Great Britain is the country mentioned most often (215/51), and almost as often as the U.S./America (177/71). England is not only the second most named country, but outside of America, it has the largest number of place names within the country used in *Freedom's Journal* (Figure 4). There are 23 place names within England, such as London, in a total of 349 articles in which these place names were mentioned at least once; if the place name of England is included, then there are 564 articles that reference this country. Basically, some place name of this country is mentioned in every issue of the newspaper. Europe as a group figures quite high overall in the world *Freedom's Journal* presents to its readership.

One of the main topics of interest was abolition and slavery. The editors of *Freedom's Journal* published numerous articles reporting on the efforts in Europe, particularly England, to abolish slavery. First, by printing information about abolition in Europe, they offered their readership an international perspective for slavery and abolition. In addition, the editors sent copies of *Freedom's Journal* to Thomas Pringle, who was the secretary of the Society for the Mitigation and Gradual Abolition of Slavery, who wrote to confirm the receipt of those newspapers and pledge their support to abolishing slavery.⁷⁷ This set up an international community in which each side was learning from the other. And last, the irony was not lost on Americans that they

⁷⁷ *Freedom's Journal*. November 9, 1827.

fought for their freedom from England in the Revolutionary War, and now England was preparing to abolish slavery and grant blacks freedom, but yet, America was not willing to follow suit.

Within Europe, the countries of France and Italy had the most place names after England and London. (See Figure 6.) France had six place names in a total of 79 articles; the place name France was mentioned in 99 articles for a total of 178 articles. Paris is the city that appeared most often (61) in articles concerning France. Italy had 13 place names in a total of 83 articles; the place name Italy was mentioned in 23 articles for a total of 106. Rome is the city that appeared most often (35) in articles concerning Italy.

The place name Italy or the place names of the cities within Italy totaled 14 locations within 106 articles in the newspaper (Figure 5). Italy was mentioned 23 times, and Rome (35) and Naples (10) were the two cities mentioned the most. Of the 14 place names within 106 articles, several topics appeared. Religious articles, historical articles, and articles pertaining to slavery appeared. Otherwise, the articles fell into the categories of news/news briefs, educational information, narratives/poems, and miscellaneous.

What is interesting about Italy is Italy didn't exist as a country during this time period. Italy did not become a country until the 1860s. At this point in time, what is currently known as Italy was a collection of republics, city-states, and other independent entities. The focus appears to be on the Papal States and the Pope. The Catholics were known for their racial tolerance during this time period and spoke out against slavery. Several articles focused on slave labor versus free labor. One article, entitled "Thoughts on British Colonial Slavery" questioned why Christianity

has not abolished slavery. The article mentioned Rome because a runaway slave had learned about Christianity in that city.

Most of longer articles related to the Pope, bishops, or priests within the church. Two articles covered the history of Pope Sixtus V. Two other narratives revolved around the Dean and Bishop of Badajoz and Ciro Annichiarico, a priest and possible murderer. In addition, two articles were written about Thomas Aniello, referred to as Masaniello, who was an Italian fisherman who led a revolt against a Spanish overlord in Naples, and the Archbishop of Naples was a mediator between the two parties.

In addition to religious topics, numerous articles focused on history. Some of the previously mentioned articles, such as Pope Sixtus V and Thomas Aniello, were historical narratives with a religious theme about the 16th and 17th century. Sixteen articles offer the reader a historical perspective of different topics from Haiti to Egypt to the Brotherhood of Mercy. In some of them, Italy or its cities are just a physical location, but in other articles, they are used as a historical example many times connected to the glory of ancient Rome. In some articles, the writers are connecting Africans to ancient Rome showing how Africans terrorized Rome or connecting to ancient Rome's slave system. The writers compare Africans to the titans of Rome (12/5/1828) or say they "shook the power of the renowned Rome" (8/31/1827). In an article about African schools, the writer argues for education for blacks by showing how important education was to the ancient Romans (5/18/1827).

Even though Italy seems like an unlikely choice of place names for *Freedom's Journal*, it appears the editors found material worthy for their readership that helped connect them to either Rome's past or their racial tolerance and advocacy for the abolition of slavery.

North America — Canada

Canada had six place names in a total of 52 articles; the place name Canada was mentioned in 29 articles for a total of 81 (Figure 6).

Of the 7 place names within 81 articles, the three main topics appeared: politics, criminal activity, and African American issues. Otherwise, the remaining articles fell into the category of news/news briefs, some of which were in short narrative format. Six articles focused on political issues, such as the Speaker of the House election, the Fugitive Slave Act, and an election in which 60 women voted. Three articles informed the readers that slaves were escaping into Canada, and the United States had asked the British government to return them, but the British government had declined. Five articles mentioned black issues, such as the Fugitive Slave Act, runaway slaves, colonization, or socially positive articles. The colonization article argued for the futility of colonization due to the sheer number of African Americans, making it impossible to return everyone to Africa. The positive social articles drew attention to affirmative acts within the black community in which those who had settled in Canada were growing tobacco and a group of free black sailors who saved another ship lost at sea.

Canada is prominently featured in *Freedom's Journal* probably for numerous reasons. First, Canada abolished slavery in 1793, so African Americans who crossed their borders were considered free. In addition, they could own property, get married, get jobs, and basically live a

comfortable life. They were accepted into Canada with few problems from the public, and by the 1820s there were several all-black communities in Canada. Because of its location to northern states in America, it provided an option for northern blacks seeking to emigrate. In areas like Cincinnati, Ohio where racial conflict was high, African Americans emigrated and colonized in Canada. Although the editors of *Freedom's Journal* were against emigration to Liberia, Sierra Leone, and even Hayti, they are supportive of emigration to Canada because they felt African Americans in Ohio had few options. In addition, they were more supportive of emigration decisions that were made by African Americans, and not a white-dominated movement, such as colonization to Africa. Like Hayti, the editors use Canada as an example of how African Americans can prosper. They wrote in *Freedom's Journal* about "great numbers of negroes have settled, within a few years, in the western parts of Upper *Canada*, where they have introduced the culture of *tobacco*, and in six years raised the export from almost nothing to 500 or 600 hogsheads."⁷⁸ By doing this, they are illustrating to their readership a diligent and hard-working group of African Americans who are taking charge of their own destiny and future.

Canada is also a place of refuge for fugitive slaves. Various articles published at the beginning of 1829 informed slaves they would be safe in Canada even though America asked for their return. The British government refused to return fugitive slaves to America. Two articles in the January 16, 1829 issue of the newspaper reported on the refusal of returning fugitive slaves. The first focused on the news, and the second was an editorial in which Russwurm stated: "Upon the subject of Fugitive Slaves, we rejoice to find the members of the *British* Cabinet so firm and

⁷⁸ *Freedom's Journal*. August 3, 1827.

positive; and were they otherwise inclined, public opinion (which is everything in that *Government*,) would preclude their entering into any negotiations for the surrender of fugitive slaves.”⁷⁹ Thus, setting up Canada as a place of refuge for both free blacks and fugitive slaves.

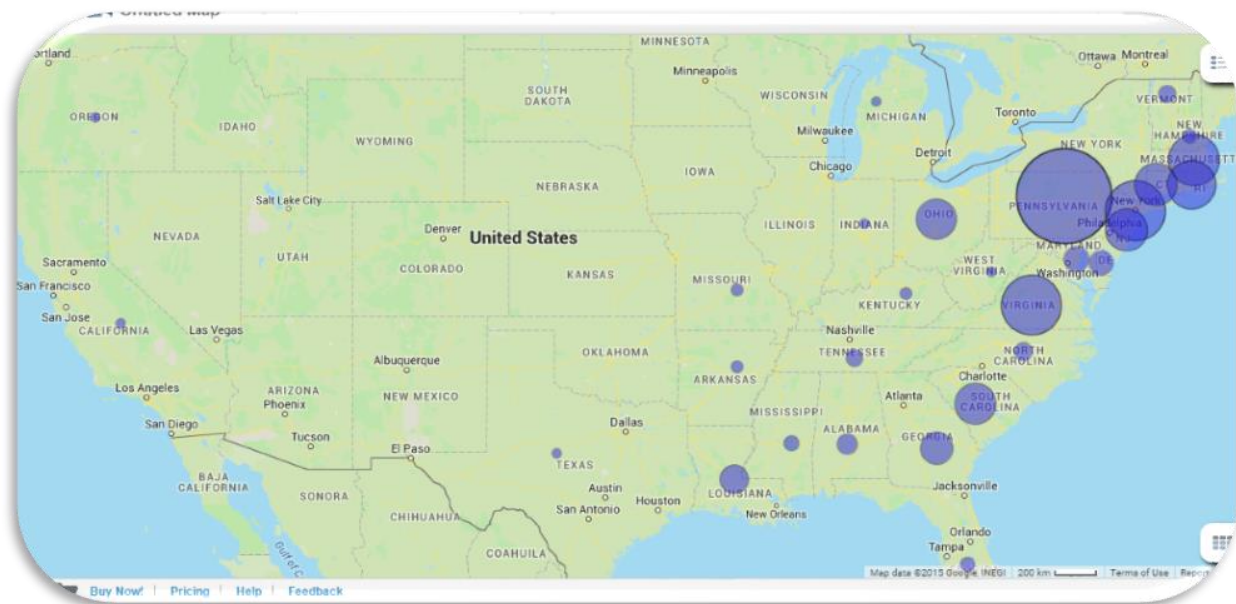


Figure 7. Place names in the United States.

North America — The United States

Within North America is the United States, which of course, garnered the most place names. Within the United States, the majority of place names come from the northeast, with seven out of the top ten being from the north. During the first few decades of the 19th century, the United States was mostly populated on the eastern seaboard stretching from Maine to Florida. As one

⁷⁹ Freedom’s Journal. January 16, 1829.

headed west from the Atlantic Ocean, the states ended after Louisiana and Missouri. Areas past these states had yet to be granted statehood, so little information was covered in *Freedom's Journal*.

The articles from *Freedom's Journal* focused on two areas, northern states where industrialization was prominent, and southern states where slavery was prominent. (See Figure 7 and 8.) In the north, large cities like New York, Philadelphia, Boston, and Chicago produced much of the nation's wealth through industry. America was participating in its own Industrial Revolution throughout the north with an economy based on manufacturing using factory workers. These cities were crowded, but were important places of culture, education, and religion.

The south, on the other hand, was still made up of farms and plantation with few large cities, so southerners received less cultural and educational opportunities. The economy was agricultural based on cotton, tobacco, rice, sugar cane, and indigo. Slavery, which was used for labor and essential to their economy, was widespread throughout the southern United States in the early 19th century. Between 1820 and 1830 the slave population in the United States increased from 1.5 million to 2 million.⁸⁰

⁸⁰ Historical Statistics of the U.S. (1970).

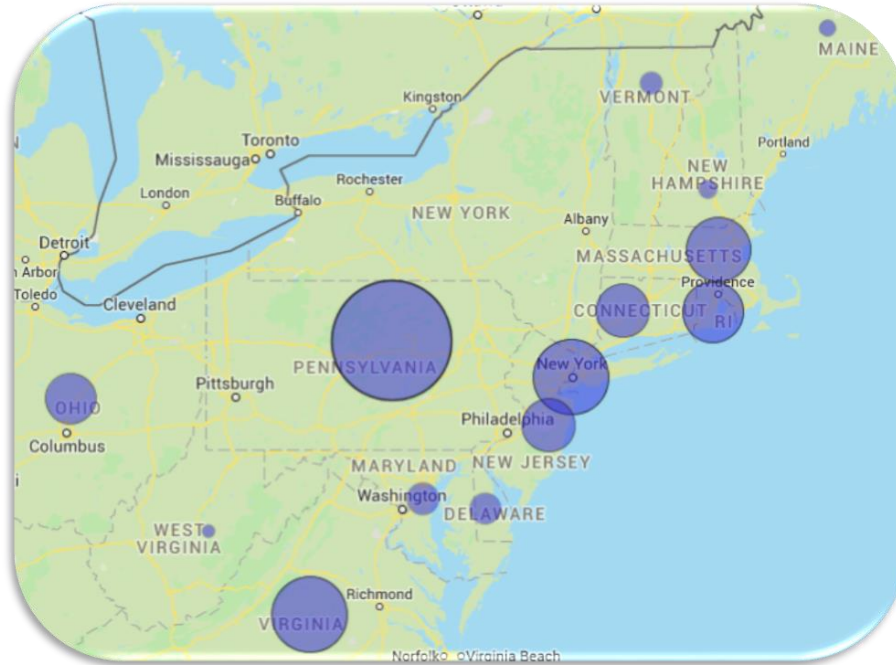


Figure 8. Place names in northeast United States.

Philadelphia

Even though Congress moved the nation's capital to Washington, D.C. in 1790, Philadelphia maintained its presence as a manufacturing and economic hub. It still was the center for minting money and industries for shipbuilding. It was a cultural center and also established public education. Philadelphia was known for its views against slavery and for participating in the Underground Railroad. Pennsylvania started abolishing slavery in 1780 by passing a law that all negroes and mulattos born within the state would be free. From there, they gradually abolished slavery. Philadelphia also had a large Quaker population, which was known for advocating for equal rights.

The place name Philadelphia appeared in 214 articles in *Freedom's Journal*. Of the 214 articles, numerous topics emerged. The six main topics that appeared in a total of 116 articles were marriage announcements (15), death announcements (26), advertisements (15), news about kidnappings (13), news pertaining to education (11), and news pertaining to colonization and slavery (26). Otherwise, the articles fell into the categories of news/news briefs, narratives/poems, and miscellaneous.

Almost half of the Philadelphia articles published in *Freedom's Journal* pertained to its black citizens. The articles about kidnapping informed readers of children who had been kidnapped, the abolition society who was trying to protect them, and Philadelphia's mayor and high constable who worked towards justice in this matter. The education articles informed their reader when a new school opened and also advocated the importance of education for African Americans. One school that was preparing to open for children was also going to offer night classes for adults. In one article, a society through one of the churches was formed to promote education among the black community, and in another article the education for poor black children was discussed during the American Convention of the Abolition of Slavery. The topic that received the largest number of articles dedicated to it was slavery/colonization. Numerous articles notified and updated the public about the American Convention for the Abolition of Slavery, which was held in Philadelphia. Other articles discussed the advantages and disadvantages of colonization. *Freedom's Journal* took a stance against colonization for most of their two-year run, and they ran articles from anti-slavery societies protesting colonization. But, they also printed articles from those with opposing viewpoints. John H. Kennedy, who was a

member of the American Colonization Society, wrote numerous articles throughout the newspaper advocating for colonization and explaining to the readers its value.

Virginia

With the invention of the Cotton Gin in 1793, the production of cotton in the southern coastal states increased significantly. This meant slavery became even more necessary to those states and the likelihood of it ever being abolished began to vanish. Virginia was one of the stronghold states for cotton production, and it would challenge any entity that wanted to remove slavery.

Of the 88 articles in *Freedom's Journal*, 50 of them focused on slavery and colonization. Virginia was the second place name for a city behind Philadelphia. Thirteen of the articles debated colonization, and the final two articles were from *Freedom's Journal* changing its stance on colonization. For most of the two-years the newspaper published, they had been against colonization, but the last two articles explain their change in opinion. Seven of the articles illustrate examples of owners liberating their slaves either before or after death in their wills as long as the free slaves will travel to Liberia and colonize in Africa. Six articles direct attention to the politics of the time period: laws being created, increased representation numbers in Congress due to slavery, and slavery in the District of Columbia. Five articles debated slave labor versus free labor, and five more articles informed readers of runaway slaves or kidnapped slaves. The remaining 14 articles that revolved around slavery were dedicated to topics such as the history of slavery, the dangers of slave states, or celebrating the fourth of July. The 38 articles on non-slavery topics covered domestic news (fires, murder, robberies, the weather), news summaries (number of useless dogs in Virginia and counterfeit money), and a poem.

Conclusion

The preliminary results of this case study show place names that were important not only to the editors of *Freedom's Journal*, but place names the editors felt were important to their readership. Locations used within *Freedom's Journal* illustrate the “constellation of locations” that constructs a “mental map of the world” that Blevins refers to.⁸¹ By reading about these locations, the readership of *Freedom's Journal* was able to recognize its place in the larger world. Russwurm and Cornwall used place names to not only expose their readership to the world around them, but to the black communities that existed world-wide.

By showing the locations *Freedom's Journal* printed, the editors used countries, regions, states, cities, and towns to connect the readership with global locations significant to their community, such as Hayti and Liberia. In addition, using the concept of Anderson's imagined communities, the newspaper connected its readership to the numerous black people and communities that existed within the United States, but also outside of the United States. African Americans learned about free slave communities in Ohio who were immigrating to Canada to colonize because of racial tensions; they learned about slave communities fighting for freedom in the south; and they learned about independent black communities in Hayti and Liberia. They read about black communities in other countries fighting for freedom, successfully running businesses, and raising families. *Freedom's Journal* showed them these communities existed and described them and their lives. Plus, using the concept of Said's imagined geography, these locations cast a new perspective on locations around the globe. *Freedom's Journal* did not

⁸¹ Blevins, Cameron. Space, Nation, and the Triumph of Region: A View of the World from Houston. *The Journal of American History* June 2014, pp 122-146.

mimic the imagined geographies of the white newspapers of the time period. Instead, they produced a new view of the world specific for African Americans who were interested in topics like slavery and colonization from a vantage point of black America. The editors focused on local locations such as Philadelphia, and international locations, such as Hayti and Canada to show their readership the positive occurrences happening to black communities. They illustrated how the abolition community worked in both the United States and Europe, and how the European abolition movement was supporting those in America. They placed an emphasis on locations and issues that were important to the black community, which allowed them to start identifying with other national black communities, but also international black communities.

By doing this, *Freedom's Journal* created a space for African Americans within the nation and the world. And, through the introduction of place – locations that were important to the existence of the black community – it helped create a black identity by African Americans realizing there were numerous other black communities nationally and internationally. Russwurm and Cornwall decided what was important for its readers as they chose certain locations, while avoiding others, and as they wrote positively about one location, while providing negative information about another. This created positive and negative space through their coverage of those locations. Whereas Hayti might have had a negative reputation in white newspapers because of the Haitian Revolution and its aftermath, for black America it epitomized the strength of one community and the gaining of freedom for a community. It provided a different sense of space and place than the white newspapers of the time period because it actively defined the space of the black community by focusing negatively or

positively on certain locations scattered across the globe. Its readers used the 354 place names across 43 countries to craft mental maps of the world. By using certain place names more than others, or by casting those locations in a positive or negative light, the editors of *Freedom's Journal* created and shaped space for African Americans in the 19th century and influenced how they saw the world.

Through the use of text, *Freedom's Journal* created space for a community that lacked space within the dominant white community, and not just a space, but a positive one for the black community that not only stood against the views of the white community, but facilitated the black community in constructing their own American identity from reading about the world around them. *Freedom's Journal* crafted a vision of not only African Americans, but black communities from around the world, using articles that came from across the globe. Their content reinforced the perception of African Americans as good, hard-working, people who deserved to be free and equal.

References

- Agnew, John. *The United States in the World Economy*. (Cambridge University Press, 1987).
- Benedict, Anderson. *Imagined Communities: Reflections on the Origin and Spread of Nationalism*. (London, 1983).
- Blevins, Cameron. Space, Nation, and the Triumph of Region: A View of the World from Houston. *The Journal of American History* June 2014, pp 122-146.
- Buchanan, Carrie. Sense of Place in the Daily Newspaper. *The Journal of Media Geography*. Spring 2009, pp 62-84.
- Cresswell, Tim. *Place: A Short Introduction*. (Blackwell Publishing, 2004).
- Ethington, Philip J. Rethinking History. December 2007. pp 465-493. Print.
- Hayles, Katherine. *How We Think: Digital Media and Contemporary Technogenesis*. (University of Chicago Press, 2012).
- Knowles, Anne Kelly., and Amy Hillier. *Placing History: How Maps, Spatial Data, and GIS Are Changing Historical Scholarship*. Redlands, CA: ESRI, 2008. Print.
- Lefebvre, Henri. *The Production of Space*. trans. Donald Nicholson-Smith, Cambridge Mass, Wiley-Blackwell, 1991. Print.
- Massey, Doreen. *A Global Sense of Place*. Minneapolis: University of Minnesota Press, 1994.
- Murray, Janet Horowitz. *Hamlet on the Holodeck: The Future of Narrative in Cyberspace*. (New York: Free Press, 1997).
- Said, Edward, *Orientalism*, (New York, 1979), 53-55.

Staley, David J. *Computers, Visualization, and History: How New Technology Will Transform Our Understanding of the past*. (Armonk, NY: M.E. Sharpe, 2003).

White, Richard. "What is Spatial History?" Spatial History Lab, Stanford University. Working paper; Submitted 1 February 2010. <http://www.stanford.edu/group/spatialhistory/cgi-bin/site/pub.php?id=29>

CHAPTER FOUR

USING TOPIC MODELING TO SEARCH FOR LATENT THEMATIC STRUCTURE WITHIN *FREEDOM'S JOURNAL* AND UNMASK ITS PLACE AND IMPORTANCE IN HISTORY

Introduction

Historical newspapers offer a rich look into a society's past, and in the 19th century, almost every community had at least one newspaper with which to inform its citizens. Each community newspaper documented human engagement, political happenings, and the economic setting of the community, the region, and sometimes the world. Looking back in time through historical newspapers offers researchers an immense sandbox of information, but up until recently, to manually read through 100 years of a daily newspaper, such as *The New York Times*, was an exhaustive, and possibly impossible, feat because researchers had to painstakingly read them page-by-page and take notes. Many times, researchers would just take a sampling of the newspaper's issues or articles. Now, with historical newspapers being digitized at a dizzying pace, and the plethora of digital information that is collected and stored within databases, researchers have an even greater resource for data mining material and access to the past. Digitization increases access to these newspapers, but it doesn't solve the problem of scale. The predicament is still the vast amount of newspapers and the duration within which some of them have published, which continues to make researching them difficult. However, new digital tools are providing the means with which to study historical newspapers. This case study uses another digital tool, topic modeling, to discover and analyze an array of topics that exist within the first African American newspaper, *Freedom's Journal*.

In this chapter, like the previous chapter, I am using a digital tool to examine a historical newspaper. For this study, I am exploring the use of a topic modeling to examine and identify the most significant and possibly interesting topics, both latent and obvious, during the two-year run of *Freedom's Journal*. This case study will use a topic modeling computer program to extract topics the computer deems significant through algorithms that use the re-occurrence and co-occurrence of words to assemble topics, and then I will use close reading to analyze those topics for significance. The aim is that machine reading will discover important and interesting topics, some of which may have been unknown or unexpected from a close reading of *Freedom's Journal*, thereby increasing the knowledge gained from this newspaper and generating a new awareness and understanding of it during its two years of publication.

The purpose of this case study is to combine close reading with machine reading, through the use of a topic modeling program, to analyze: (1) What topics, both expected and latent, exist in *Freedom's Journal*; (2) How much print space *Freedom's Journal* gave to these topics; and (3) How the topics changed over the two years *Freedom's Journal* was in production.

In this paper, I will provide a brief introduction of topic modeling and the current work being done in the field. Next, I will provide the methodology I used to obtain my results and explain the digital tools I used for this case study. After which, I will present the results of my project's research through a series of visualizations. And last, I will conclude with a broader reflection of digital tools within the humanities and how they can be used to study historical newspapers.

Understanding Topic Modeling

For centuries, academics in humanities fields, such as English, mass media, and history, have been reading texts and interpreting the meanings of their words. They've looked for patterns and themes in the works of their favorite authors, politicians, or newspapers. In the past, this type of work was completed with close reading of the text, extended time, and copious note-taking. However, technology is allowing machine reading to assist and supplement researchers who want to data mine their texts. One such data mining technique is topic modeling. Associate Professor of English Matthew Jockers uses a fictional tale to explain topic modeling to his English students at the University of Nebraska, Lincoln.⁸² He explains how Jane Austen and Herman Melville go to the LDA Buffet⁸³ to get inspiration for their writing. The buffet serves "motifs, themes, topics, and tropes."⁸⁴ Jane chooses courtship, dancing, and gossip in various amounts. Melville chooses a large amount of whaling, followed by seafaring and cetological jargon. Using the topics for inspiration, the two authors sit down and Austen writes *Persuasions* and Melville writes *Moby Dick*. Upon leaving the LDA Buffet the authors encounter a drunk Ernest Hemingway, who has been banned from the LDA Buffet. Hemingway, wanting to know the topics at the buffet, steals their manuscripts. Using their manuscripts, he sits down to deconstruct them, so he can discover the six topics served at the LDA Buffet that day. He dumps

⁸² Jockers, Matthew L. *Text Analysis with R for Students of Literature*. Switzerland: Springer International Publishing, 2014. Print. 1 January 2015. <<http://www.matthewjockers.net/2011/09/29/the-lda-buffet-is-now-open-or-latent-dirichlet-allocation-for-english-majors/>>.

⁸³ Latent Dirichlet Allocation is part of a larger field of probabilistic modeling. It is one particular technique used for discovering topics within a corpus. Jockers uses LDA name the place where the authors find topics/themes for their stories.

⁸⁴ Jockers, Matthew L. *Text Analysis with R for Students of Literature*. Switzerland: Springer International Publishing, 2014. Print. 1 January 2015. <<http://www.matthewjockers.net/2011/09/29/the-lda-buffet-is-now-open-or-latent-dirichlet-allocation-for-english-majors/>>.

out all the words from their manuscripts onto a table and starts dividing them into six categories. After he completes this task, the topics are random and unhelpful, so he returns to Austen's and Melville's manuscripts. He examines each word in the context of the manuscript and the words around it in the manuscript, known as co-occurrence. By doing this, he is able to collect the words that relate to the six topics being served at the LDA Buffet. Topic modeling is similar to Jocker's anecdote, except it is completed using computers and algorithms, instead of Hemingway, and it can be used for any corpus, not just literature.

Sharon Block, who wrote *Tales from the Vault* and co-authored *Probabilistic Topic Decomposition of an Eighteenth-Century American Newspaper*, compares topic modeling to the game show, the *\$100,000 Pyramid*, where a contestant uses a series of words in order to get his/her partner to guess a particular topic.⁸⁵ The person might say TNT, dynamite, bomb in order to get his/her partner to say, "Things that explode." The person looks for a connection between the words – a topic that all the words relate to. Topic modeling does the same thing. The computer machine reads the corpus, discovers which words re-occur and co-occur, ranks the words most likely to appear together, and then generates lists of grouped words. With content knowledge and interpretation (close reading) the researcher then analyzes the groups of words to determine a topic. By creating these lists of words, the computer is helping the researcher generate an index, of sorts, for the corpus that allows the researcher to drill down into its meaning and discover new information.

⁸⁵ Block, Sharon. "Tales from the Vault." January 2006. *Common Place: the Journal of Early American Life*. 1 January 2015. <<http://www.common-place-archives.org/vol-06/no-02/tales/>>.

As both examples illustrate, topic modeling is a type of data mining in which patterns of words, known as topics, that run through a corpus are discovered using machine reading. A topic is basically a group of words that is likely to re-occur and co-occur in the same document. Researchers do not determine the topics in advance, but employ computer programs to locate them. The belief is that a corpus, such as a newspaper, novel, or set of speeches or tweets is comprised of different themes or topics. Each document contains a group of words, and within those words, is a mixture of topics, and in the case of newspapers, each article within the edition can have several topics within it. In addition to providing the topics within the corpus, topic modeling also formulates proportions to illustrate what topics appear in each document. For example, within an American newspaper from the 1820s, topics on politics, slavery, England, and temperance might all exist within one article. A topic model not only selects the topics, but helps the researcher quantify the proportions of each topic within the article. In the example of the 1820s American newspaper, 80% of the article could be political, with only 10% being about slavery, 5% about temperance, and 5% about England. In addition, a multitude of articles can have overlapping topics. Although the word “topic” might be defined as a “theme” to someone in the humanities, to the algorithms in a computer program a topic consists of a list of reoccurring and co-occurring words, and the document it searches is nothing more than a collection or “bag” of words. According to Robert K. Nelson, author of *Mining the Dispatch*, “a topic is a probability distribution of words, statistics for a set of words that indicate the probability of each individual word appearing in a document on a particular topic.”⁸⁶ This use of

⁸⁶ Nelson, Robert K. *Mining the Dispatch*. 2011. web. 1 January 2015.
<http://dsl.richmond.edu/dispatch/pages/intro>

algorithms, distributions, and statistics allows researchers to quickly quantify through machine reading what had once been a more laborious qualitative endeavor of close reading.

The process is a generative one in which a document is represented as a collection of words. Within each document there are topics, shown as a particular mixture of words, and these topics have associated word probabilities within the document. According to Graham, Milligan and Weingart in *Topic Modeling: A Hands-On Adventure in Big Data*, the computer begins with an assumption: if several documents contain identical word groups, those words likely form a topic, and through each iteration of scanning, the computer reorganizes these words into categories.⁸⁷ With each scan, computer algorithms extract topics by clustering words frequently re-occurring and co-occurring together as the computer program reads and re-reads the text. With each iteration, the computer revises the list of topics based on the probability distribution of word occurrences throughout the document/s. Then, the researcher “just keeps improving the model, to make [his/her] guess more internally consistent, until the model reaches an equilibrium that is as consistent as the collection allows.”⁸⁸ For example, the words abolition, state, trade, jail, and free might occur together in numerous articles within numerous editions of a newspaper, and as the computer rescans the newspaper over and over, the distribution of these words within more and more articles in the newspaper becomes evident, and the computer generates a list of words. Once these words are analyzed by the researcher, a topic is chosen: slavery. The word slavery might not even be mentioned in the article, which would

⁸⁷ Graham, Shawn, Ian Milligan and Scott Weingart. "Topic Modeling: Hands-On Adventure in Big Data." Graham, Shawn, Ian Milligan and Scott Weingart. *Exploring Big Historical Data: The Historian's Macroscopic*. London: Imperial College Press, 2016. Print. p. 117.

⁸⁸ Underwood, Ted. *Topic modeling made just simple enough*. 7 April 2012. Web. 10 September 2015. <<https://tedunderwood.com/2012/04/07/topic-modeling-made-just-simple-enough/>>.

make a keyword search meaningless, but the list of words provided by the computer, and a close reading of the article by the researcher, allow the researcher to determine that slavery is a latent topic within the article. Graham, Milligan, and Weingart assert that although the “mechanism is a deeply flawed assumption about how writing works...the results of this mechanism are often surprisingly cogent and useful.”⁸⁹ For them, it’s a way of comparing semantic meaning with a large volume of text by using different models until the researcher finds one that is effective. The effective model is not a model that proves the researcher’s premise, but one that furthers the research by providing new ways to view the material. It becomes a “lens through which [to] look at [the] material.”⁹⁰ It becomes a starting point.

One of the significant benefits of topic modeling is it explores and analyzes text in a large corpus to illustrate a representation of the text’s latent topics, as opposed to the obvious topics readers can determine unassisted. It also can be employed for future explorations of the corpus by drilling down farther into the latent and obvious topics of the content. By looking at the latent, or invisible, topics the computer extracts through word choice within documents, a deconstruction of the corpus can ensue. According to Jonathon Chang, topic modeling leads to “semantically meaningful decomposition of [documents]” because “topics tend to place high probability on words that represent concepts, and documents are represented as expressions of those concepts.”⁹¹ The topics are not pre-generated by a researcher, but instead, a topic modeling program, such as Pro Suite, MALLET, or Python is used to generate a pre-determined

⁸⁹ Graham, Shawn, Ian Milligan and Scott Weingart. "Topic Modeling: Hands-On Adventure in Big Data." Graham, Shawn, Ian Milligan and Scott Weingart. *Exploring Big Historical Data: The Historian's Macroscopic*. London: Imperial College Press, 2016. Print. p. 113.

⁹⁰ Ibid 119-120.

⁹¹ Chang, Jonathan, Jordan Boyd-Graber, Chong Wang, Sean Gerrish, and David M. Blei. "Reading Tea Leaves: How Humans Interpret Topic Models." *Neural Information Processing Systems*. Vancouver, BC, 2009. Print. p.1.

number of topics from a corpus that will then be used by the researcher to develop, interpret, and understand contextual information within a collection. The computer provides a list of words with statistical significance as they relate to the document, and the researcher provides the interpretation and contextualization. Both provide a means of useful navigation and understanding of the structure of a large textual collection.

However, topic modeling has its critics. One criticism of topic modeling is the ability of a machine to correctly group words into topics within a corpus as well as or better than a human. Chang et al. believe that “although there appears to be longstanding assumption that the latent space discovered by topic models is meaningful and useful, evaluating such assumptions is difficult because discovering topics is an unsupervised process.”⁹² So, they compared several topic models and discovered that LDA-selected topic models matched those chosen by human researchers. Therefore, their work “validates the use of topics for corpus exploration and information retrieval” because “humans are able to appreciate the semantic coherence of topics and can associate the same documents with a topic that a topic model does.”⁹³ Cameron Blevins, author of *Topic Modeling Marth Ballard’s Diary*, was “floored” by the ability of topic modeling to not only generate obvious topics, such as gardening and cold weather, but also discover the latent topic of emotion in his case study of *Martha Ballard’s Diary*. He said: “The most descriptive label I could assign this topic would be emotion – a tricky and elusive concept

⁹² Ibid. p.1.

⁹³ Ibid. p.8.

for humans to analyze, much less computers. Yet MALLET did a largely impressive job in identifying when Ballard was discussing her emotional state.”⁹⁴

Other concerns are that (1) topics chosen by the computer do not always make sense to the researcher, (2) the algorithm incorrectly places words into topics, or (3) there’s a lack of an effective method for establishing the number of topics within a corpus. First, most researchers have topics generated by the computer that are nonsensical, and it is the job of the content expert to close read the material and discern the importance or lack of in the topic. Next, as for the placement of words into topics, in *Mining the Dispatch*, Nelson discusses a distribution the computer generated in which more than 25% of the distribution for one category was for fugitive slave ads; when in reality, close reading showed the word distribution was for the category “entertainment and culture,” but because the slave ads possessed words such as hat and coat, the computer placed into them into “entertainment and culture.” So even though probabilistic models, such as LDA, help discover and interpret material in large collections of text, the researcher is the expert in the field who explains and understands the material the topic modeling algorithms uncover. And last, researchers must use trial and error to choose differing numbers of topics and discover which word groupings appear accurate. Some of the topics make no sense, some have almost the exact same words, and some are so large they could be any topic. However, despite these limitations, many of which can be overcome with close reading, topic modeling facilitates the ability of researchers to study an entire archive of written material and not just sample pieces.

⁹⁴ Blevins, Cameron. *Modeling Martha Ballard's Diary*. 1 April 2010. Web. 15 December 2016.

Topic Modeling Case Studies and the LDA Method

Researchers are discovering that topic modeling can help analyze the entire content of immense digital newspaper collections efficiently, and some of the more effective case studies of topic modeling with newspapers follow: Newman and Block, Nelson, and Yang, Torget, and Mihalcea have all employed topic modeling on newspapers to uncover topics and trends over the course of time.^{95,96,97} Newman and Block looked at 80,000 articles and advertisements in the *Pennsylvania Gazette* from 1728 – 1800 to calculate how prevalent topics changed over time. Nelson, in *Mining the Dispatch*, examined the social and political life in Civil War Richmond, Virginia using 112,000 articles and advertisements in the *Richmond Daily Dispatch* from 1860 – 1865. And Yang, Torget, and Mihalcea used topic modeling to examine articles and advertisements in newspapers in Texas from 1829 – 2008. In addition, Newman, Chemudugunta, Smyth, and Steyvers focused on both topics and named entities (persons, organizations, and places) when they analyzed 330,000 articles from *The New York Times*.⁹⁸

⁹⁵ Newman, David J and Sharon Block. "Probabilistic Topic Decomposition of an Eighteenth-Century American Newspaper." *Journal of the American Society for Information Science and Technology* 57.6 (2006): 753-767. Print.

⁹⁶ Nelson, Robert K. *Mining the Dispatch*. 2011. web. 1 January 2015.
<http://dsl.richmond.edu/dispatch/pages/intro>

⁹⁷ Yang, Tze-I, Andrew J Torget and Rada Mihalcea. "Topic Modeling on Historical Newspapers." *Proceedings of the 5th ACL-HLT Workshop on Language Technology for Cultural Heritage, Social Sciences, and Humanities* (2011): 96-104. Print.

⁹⁸ Newman, David J, et al. "Analyzing Entities and Topics in News Articles using Statistical Topic Models." Mehrotra, Sharad, et al. *Intelligence and Security Informatics: IEEE International Conference on Security Informatics*. Germany: Springer, 2006. 93-104. Print.

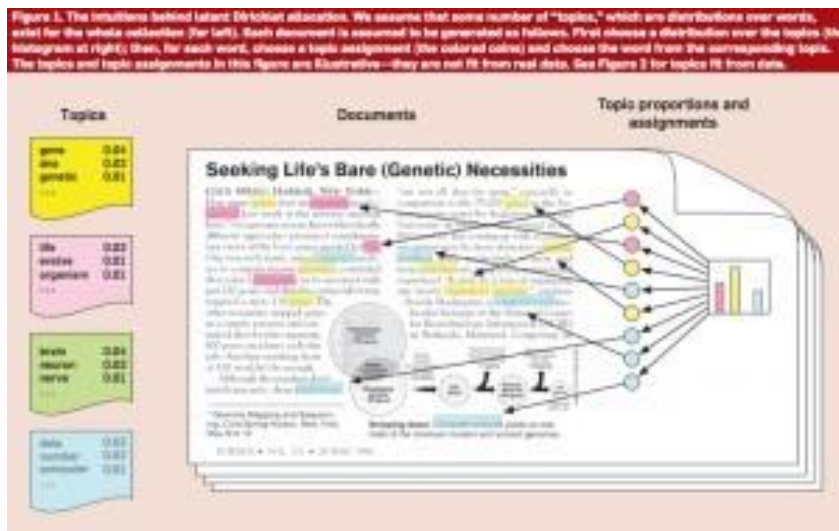


Figure 9. Illustration from Blei, D. 2012. "Probabilistic Topic Models."

Although there are numerous approaches to topic modeling, many scholars who write about topic modeling are using Latent Dirichlet Allocation (LDA), which is part of the larger field of probabilistic modeling. Graham, Milligan, and Weingart said the LDA technique is not the first topic modeling technique, but it is the most popular, and they, like many others cite David M. Blei, from the departments of Statistics and Computer Science at Columbia University when discussing LDA.⁹⁹ Blei, who works in the fields of machine learning and Bayesian statistics, started writing about topic modeling in early 2000 and was one of the first to present on topic modeling. He defines probabilistic topic modeling as "a suite of algorithms that aim to discover and annotate large archives of documents with thematic information."¹⁰⁰ These topic modeling algorithms "are statistical methods that analyze the words of the original texts to discover the

⁹⁹ Graham, Shawn, Ian Milligan and Scott Weingart. "Topic Modeling: Hands-On Adventure in Big Data." Graham, Shawn, Ian Milligan and Scott Weingart. *Exploring Big Historical Data: The Historian's Macroscopic*. London: Imperial College Press, 2016. Print. p. 119.

¹⁰⁰ Blei, David M. *Topic Modeling and Digital Humanities*. No. 1 Vol. 2 2012. Web. 23 September 2015. <<http://journalofdigitalhumanities.org/2-1/topic-modeling-and-digital-humanities-by-david-m-blei/>>.

themes that run through them, how those themes are connected to each other, and how they change over time.”¹⁰¹

According to Blei, LDA is the simplest topic model for advanced information retrieval, and it makes two assumptions: (1) a fixed number of patterns of word use (groups of words that occur together) exist, and (2) each document in a corpus exhibits topics to a varying degree (topic modeling).¹⁰² With these assumptions, topic modeling algorithms examine a corpus to obtain patterns of co-occurring words. Each topic is an accumulation of words that have a high probability of occurring together. Blei refers to this as the probabilistic inference, in which the algorithm defines a set of topics (words that frequently co-occur in a paragraph or document) that best describes a corpus, in which each document exhibits these topics to a different degree. Each document is looked at as a mixture of topics with each topic having a differing percentage in each article. Figure 9 offers a visual of probabilistic topic modeling. This one article contains four different topics as highlighted in four different colors. Each topic comprises a different percentage of the article. Some of these topics exist in other articles and form differing percentages in those articles.

Topic modeling may not provide quantitative evidence, but it does provide the means for effective qualitative discovery of a corpus. By using topic modeling as one of numerous data mining techniques available to researchers of large textual collections, it allows for the combining of technology and text to excavate information that has always existed in the text, but until recently was too difficult to extract. Despite limitations, researchers familiar with the

¹⁰¹ Ibid.

¹⁰² Ibid.

content of the collection and its historical context, will be able to utilize topic modeling (machine reading) to discover previously unknown information.

Methods

Since *Freedom's Journal* ran only two years from 1827-1829, the entire corpus was used for word frequencies and topic modeling. The newspaper consists of 103 issues, approximately 2000 articles, and 1,076,371 words. Each issue was four pages for the first year, and then eight pages thereafter, averaging 20 articles per issue. To obtain data for this project, the digital database, *Accessible Archives*, was used.

Word Frequencies within Freedom's Journal

Before starting the extraction of topics, word frequencies were collected to assess a foundation of the most used words in the corpus. Word frequencies were run in both Pro Suite, a commercial collection of text analytics tools, and Tagul, which is an online word cloud generator that allows for the creation of unique word cloud art. Tagul is simplistic and its main purpose is to create distinctive-looking word clouds. This was chosen because it was the only free word cloud generator found that could encompass the entire body of *Freedom's Journal*. The other free generators limited the word count and were unable to handle the volume of words in *Freedom's Journal*.

Both word frequency programs base their frequency analysis on a group of "included" words chosen by the program after it extracts the unnecessary "common" words, which are again, chosen by the program. Unnecessary common words are words such as prepositional phrases,

articles, and pronouns. Each program chose different unnecessary common words and included words.

The first run in Tagul was the entire corpus of a little more than 1 million words. Tagul removed numbers and unnecessary common words. It completed basic stemming, in which words are reduced and combined based on their root word. For example, negro, negroe, negroes would all be listed and counted under the root word negro. This produced the first word cloud seen in Figure 10. For the second word cloud in Tagul, I removed words I considered common and unnecessary from the top 50 words listed. These words included: much, Mr., one, two, three, being, such, those, before, having, more, and very. This produced the second word cloud seen in Figure 11.

When the same body of text was run through the word frequency tool of Pro Suite's text analytics tool called Word Stat, it produced a different list of words. The top 20 words are listed in Table 1. All 500 words were imported into Tagul. Figure 12 shows the word cloud produced using the common words Word Stat selected and removed. Both programs placed importance on different words, so the lists of words are quite different.

After running the word frequencies without manually tweaking the lists in Word Stat, I began the manual stemming process. To assist the computer's machine reading capabilities, I looked at the words chosen and used the keyword retrieval tool to read the words within their context and decide if they should be kept or sent to the excluded list. I also looked through the list of excluded words and transferred some to the list of included words. Words such as Mrs., Miss, de, and etc were excluded. First names were also excluded, such as William, but not historical

names such as *Ciro*. *Fm* meant from and was not picked up in the automatic exclusion dictionary, so it too was excluded. I used the substitution tool to assist the computer program, so *ould* was equated with *old*, and *color* was equated with *colour*.

This pre-processing produced a revised list in Word Stat that was more similar to the list of Tagul's original word cloud. See Figure 13. The first ten words in each list are similar, but the next 10 words are completely different (Table 2). The two programs use of stemming and common word choices produced completely different lists. The list produced by Word Stat appears to be a more effective after manual stemming and revision considering the newspaper's content. In addition, the Word Stat program provides the number of cases and percent of cases in which the words reside in the corpus. Of the top 20 word frequencies provided by Word Stat, all words in the second frequency run occurred in more than 88 percent of the issues and more than 90 of the 103 issues.

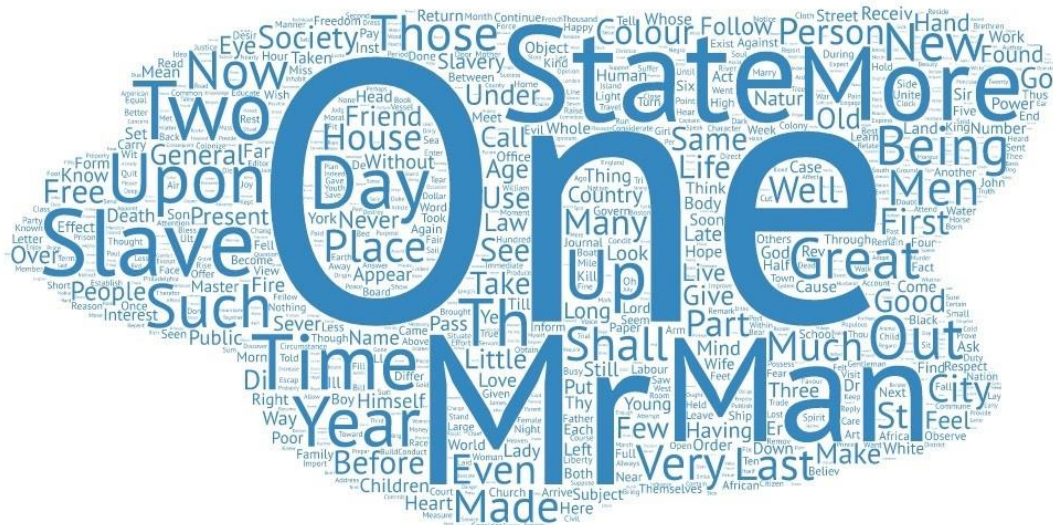


Figure 10. Original word cloud produced by Tagul for Freedom's Journal.



Figure 11. Second Word cloud produced by Tagul with author-selected unnecessary words removed.

Table 1. Top 20 word frequencies as determined by each program without manual stemming or intervention.

Tagul – Original Word Cloud				Word Stat – Original Word Cloud			
One	3443	Two	1467	Slaves	1784	Colony	539
Mr.	2272	Such	1466	School	731	William	535
Man	2254	Being	1406	Population	719	French	532
State	2070	Very	1354	Laws	659	Captain	514
More	1966	Great	1322	Miss	640	District	508
Slave	1966	Those	1298	Colonization	640	Thee	493
Time	1964	Out	1296	Committee	614	Husband	480
Upon	1926	New	1292	Mrs.	580	Boy	480
Day	1886	Now	1283	Labor	560	Abolition	476
Year	1691	Made	1282	Ship	555	Boat	476

Table 2. Top 20 word frequencies in Word Stat after manual stemming and revision process.

Tagul – Revised Word Cloud				Word Stat – Revised Word Cloud			
One	3443	Two	1467	Man	3366	Colour	1185
Mr.	2272	Such	1466	State	2021	Person	1089
Man	2254	Being	1406	Slave	1937	Child	1076
State	2070	Very	1354	Time	1891	Friend	1071
More	1966	Great	1322	Day	1824	City	1038
Slave	1966	Those	1298	Year	1663	Place	1023
Time	1964	Out	1296	Great	1662	People	1017
Upon	1926	New	1292	Free	1426	Part	972
Day	1886	Now	1283	House	1197	Country	971
Year	1691	Made	1282	Society	1197	Slavery	957

Generating the 30 Topics in Pro Suite

After analyzing the above word frequencies, all 103 issues of the newspaper were run through the topic modeling algorithm in Pro Suite using the revised word frequency list from Word Stat.

The top 500 words, based on their TD*IDF, were used for topic modeling. TD*IDF (term frequency-inverse document frequency) is how the computer evaluates the importance of the

word to a document within a corpus. *Term frequency* measures the number of times the word exists within the document, and *inverse document frequency* evaluates how often a word appears in a particular document, as opposed to the entire corpus. When combined, the two numbers illustrate how important the word is to the corpus as a whole.

Word Stat has two tools for extracting topics. One is a clustering tool, and the other an extraction tool. The extraction tool was chosen because with the cluster analysis tool a word can only appear in one cluster; whereas, with the extraction tool, a word can appear in more than one topic. This more realistically represents word usage within documents. In addition, the extraction tool provides the latent topics within a document by employing a combination of natural language processing and statistical analysis. The main statistical analysis is completed through factor analysis.

After much trial and error with the extraction tool, the most accurate results came from the *number* of topics being set at 30, with a *loading* set at .25, and a setting of *segmentation* for paragraphs. With the number set at 30 topics, Word Stat divides the newspaper text into topics based on re-occurrence and co-occurrence of words. Then, *segmentation* restricts the data mining to paragraphs, so that the data is based on the re-occurrence and co-occurrence of words within paragraphs, as opposed to sentences or the entire document. Both options (sentences and entire document) were tried unsuccessfully, as the topics assembled were too vague. Choosing paragraphs for segmentation allows for multiple topics within long documents, such as newspapers, to be identified and compared for frequency.

NO	NAME	KEYWORDS	EIGENVAL	% VAR	FREQ	CASES	% CASES
1	COMMUNITY; MORAL	COMMUNITY; MORAL; SOCIETY; CLASS; COLONIZATION; INFLUENCE; INSTITUTION; CHARACTER; PRINCIPLE; EXIST; INDIVIDUAL; PEOPLE; COLOUR; POPULATION; OBJECT	17.72	1.53	5310	103	100.00%
2	COMMIT; PRISONER	COMMIT; PRISONER; MURDER; CHARGE; COURT; COUNTY; KILL; BOSTON; ATTEMPT	5.69	0.89	2087	103	100.00%
3	FACE; MOMENT	FACE; MOMENT; HEAD; TURN; HAND; EYE; ROUND; SIDE; FALL; TEAR; ARM; ROOM; STAND; SIT; VOICE	3.81	1.23	5167	103	100.00%
4	SCHOOL; READ AND WRITE	SCHOOL; READ; EDUCATION; WRITE; BOOK; KNOWLEDGE; RACE	2.67	0.59	1971	103	100.00%
5	FATHER; MOTHER	FATHER; MOTHER; CHILD; SON; PARENT; DAUGHTER	2.41	0.69	2027	103	100.00%
6	MASTER; SELL	MASTER; SELL; MONEY; PURCHASE; PAY; DOLLAR; SLAVE; HUNDRED	2.34	0.71	3062	103	100.00%
7	APPOINTED A COMMITTEE; REPORT	COMMITTEE; APPOINT; REPORT; RESOLVE; ADOPT; MEETING; DISTRICT	2.24	0.61	1578	103	100.00%
8	VESSEL; BOARD THE SHIP	VESSEL; SHIP; CAPTAIN; BOARD; BOAT; SEA; ARRIVE	1.99	0.73	1746	103	100.00%
9	CLOCK; MORNING HOUSE	CLOCK; MORNING; NIGHT; ROOM; HOUR; BED; EVENING; DOOR; HOUSE	1.86	0.65	3042	103	100.00%
10	FORCE	FORCE	1.85	0.63	226	89	86.41%
11	HUSBAND AND WIFE; MARRY	WIFE; HUSBAND; MARRY; WOMAN; LADY; YOUNG	1.79	0.64	2404	103	100.00%
12	POPULATION; INCREASE	POPULATION; INCREASE; NUMBER	1.77	0.55	810	103	100.00%
13	ENGLISH; FRENCH; KING OF ENGLAND	ENGLISH; ENGLAND; BRITISH; KING; LONDON; FRENCH; GOVERNMENT	1.71	0.59	1635	103	100.00%
14	REV; MISS	REV; MISS; INST; CITY; CHURCH; DR; EVENING; PHILADELPHIA	1.67	0.6	2580	103	100.00%

Figure 14. Topics Found Within Freedom’s Journal.

Next, *loading* allows the user to set a minimum loading factor that words must meet in order to be retained in the results. The higher the value, the fewer keywords produced, which should allow for a more representative set of keywords. The lower the value, the more keywords produced, which can allow for a less representative set of keywords. The goal is to find the sweet spot, and 30 topics with a loading of .25 and paragraph segmentation seemed to be it.

Figure 14 shows the original results for the first 15 topics chosen by Word Stat. Appendix 1 shows the final results from Word Stat.

Table 3. Topics that contain a derivative of the word slave.

Topic	Number of Derivatives	Word Count for Topic	Number of Articles for Topic
1 - Character	1816	482,717	
2 - News & Crime	612	261,856	
3 - Face/Moment	994	509,206	
4 - Education	628	254,467	
5 - Family	612	258,267	
6 - Slavery Commerce	3468	369,100	
7 - Committee Work	89	15,423	
8 - Sea Travel	382	200,778	
9 - Time of Day	505	350,801	
10 - Force	217	54,786	
11 - Married Life	367	260,916	
12 - Population	864	191,485	
13 - Global Government	887	226,830	
14 - Church News	28	33,298	
15 - Freedom's Journal	46	14,203	
16 - God's Teachings	288	90,157	
17 - Public Information	583	208,195	
18 - Current Affairs (news)	405	60,455	
19 - Death & Drinking	356	174,073	
20 - Q&A	466	134,891	
21 - Slavery	4285	283,147	
22 - Loss by Fire	405	205,672	
23 - Colonization	1492	318,222	
24 - Time	916	376,303	
25 - Race/Colour	1061	272,742	
26 - Humanity against Slave Trade	772	132,592	
27 - Horse Transport	235	198,697	
29 - Case	1025	179,154	
30 - Society	763	207,341	
Topic 28 does not exist. The topic modeling program did not assign a topic.			

Topics Found Within Freedom's Journal – The Results

Of the 30 topics generated by Word Stat, 22 of them were viable. Of those topics discarded, one of them (#28) was left blank by the computer; three of them (#10, #29, and #30) had two or fewer keywords, which made them impossible to label with a topic; and six of them (#3, #9, #20, and #24) had no discernable theme. This provided a total of 22 viable topics for use in the project. Once Word Stat assembled the keywords and provided temporary names, I read through the articles connected to each topic and in most cases chose a more accurate name to represent the topic. The topics and a brief summary of each can be seen in Appendix 1.

Unsurprisingly, a wide variety of topics appeared that ranged from slavery and colonization to education and family to politics and sea travel. In all 22 topics chosen by Word Stat, at least one keyword per topic was detected in all 103 issues of *Freedom's Journal*. As expected, numerous topics involved slavery, though not always blatantly. The word slave was used 1937 times in two years; the only issue in which the word slave was not used was issue 61. The word slavery was used 957 times in two years, and the only issues it was not used were 62-65 and 72. See Figure 15. All 22 of the topics contained the word *slave*, or some derivative, such as slavery or enslaved. See Table 3.

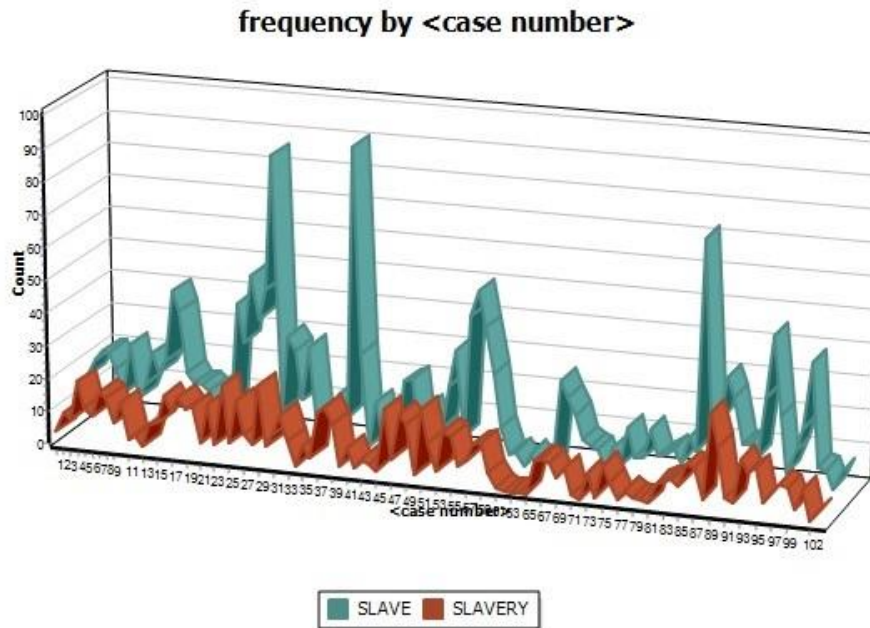


Figure 15. Frequency of the words slave and slavery across the two-year run of Freedom’s Journal.

Although the derivative of the word slave was used in all 103 issues, noticeable discussions and debates about slavery existed in the following 13 topics: character (1), education (4), slavery commerce (6), committee work (7), population (12), global government (13), church news (14), *Freedom’s Journal* (15), current affairs (18), slavery (21), colonization (23), race/colour (25), and humanity against slave trade (26). As Table 3 illustrates, topics 6 and 21, which both are about slavery, have the highest use of the word slave, followed by character (1), colonization (23), and race/colour (25). These associations suggest that readers of *Freedom’s Journal* saw, and at times, participated in conversations about slavery in relation to many facets of life, both political and social.

All 22 topics consistently appeared throughout the two-year run of *Freedom's Journal*, and through Figures 16-20, illustrating the keywords of each topic throughout the entire two-year run of the newspaper, one can see the relative pace that each topic occupied over the two years. The topics of character, slavery commerce, and committee work have more keywords used in a single issue than the other topics. All three topics, as seen in Figures 16, 17, and 18, have issues where the keywords used per issue surpass 100 words once during the two-year run of the newspaper. However, the 100-word issue for slavery commerce and committee work are both outliers since their average number of words per issue is much lower with slavery commerce being 29.73 words per issue and committee work being 15.32 words per issue. Character, on the other hand, maintains a healthy average of keywords per issue at 51.55 words, and is the topic with the most words per issue and across the two-year span (5310 words).

In addition to character, the topic God's teachings has an average of 44.94 words per issue (4629 words total), slavery commerce has an average of 29.73 words per issue (3062 words total), and church news has 25.05 words per issue (2580 words total). See Figures 19 and 20. All other topics are below 25 words per issue. Although slavery is a prominent topic in *Freedom's Journal*, social and community issues that revolve around good character traits, following God's teachings, and church news rank high in word count throughout the two-year run. These findings suggest that although slavery was an important topic in the black community, social issues and religion were more prominent topics for the black community. See Appendix 2 for all of the Keywords per Issue figures for each topic.

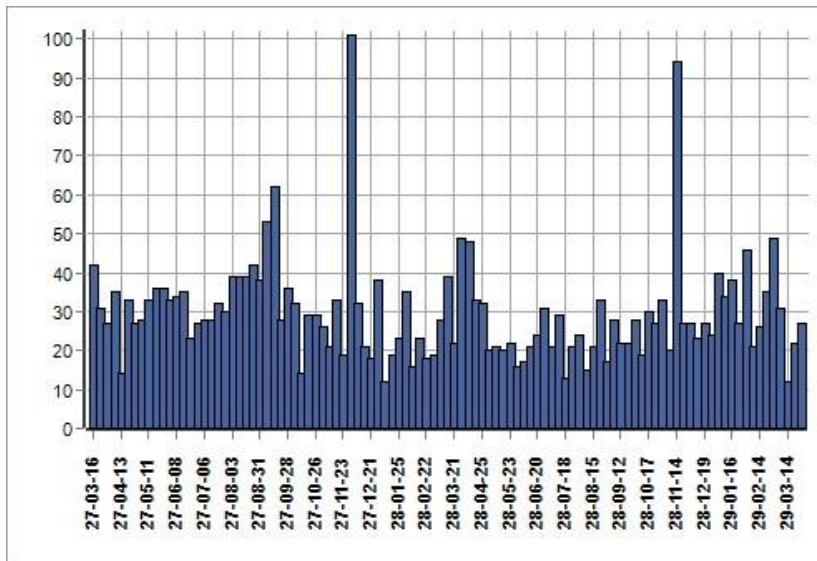


Figure 16. Keywords per issue for the topic of slavery commerce.

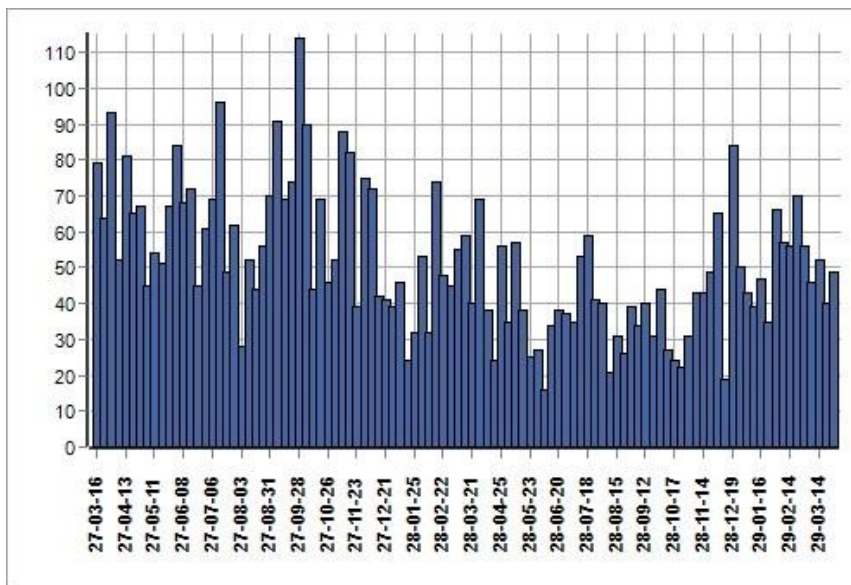


Figure 17. Frequency of the words slave and slavery across the two-year run of Freedom's Journal.

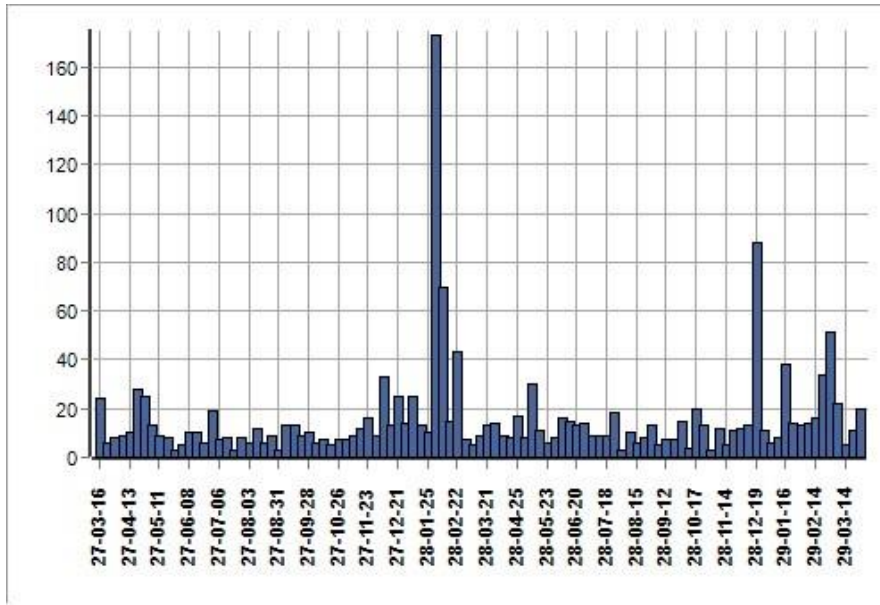


Figure 18. Keywords per issue for the topic of committee work.

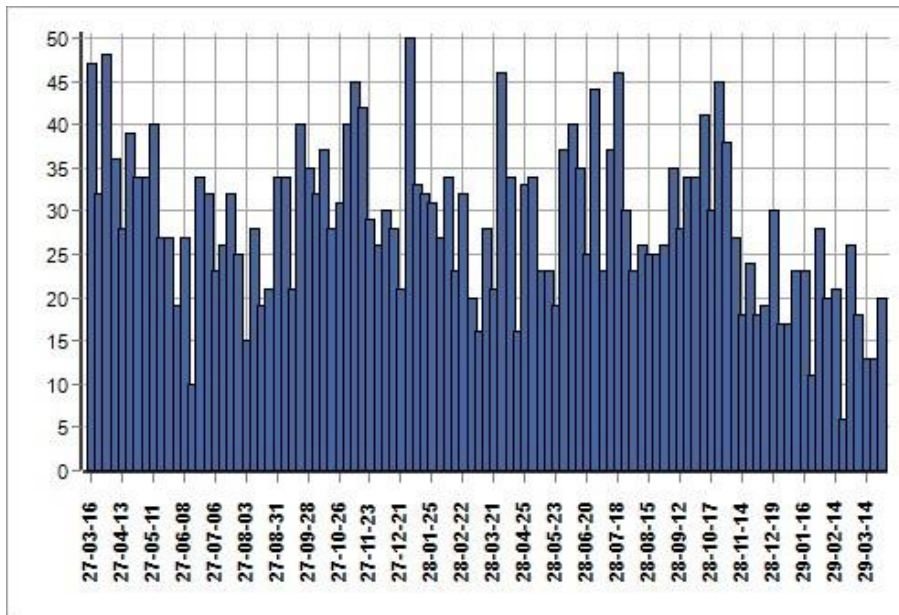


Figure 19. Keywords per issue for the topic of church news.

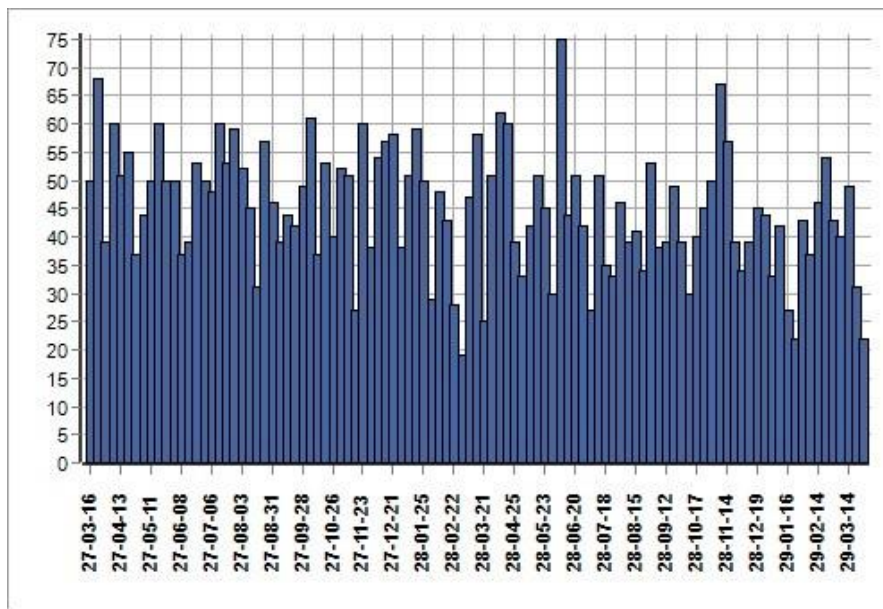


Figure 20. Keywords per issue for the topic of God’s teachings.

Overall, the topic modeling shows that the articles in *Freedom’s Journal* related to slavery, current affairs, and social issues. The overall distribution of topics within the 22 topics chosen by the program illustrate that *Freedom’s Journal* was a newspaper focused on illustrating the evils of slavery; discussing the debate about colonization; encouraging the teachings of God; informing the readership about news, crime, government, and politics; and supporting good character, education, and family values. Only seven of the original 29 topics did not directly relate to the main topics.

Of the top five topics chosen by Word Stat as being most important to *Freedom’s Journal*, one was a non-topic, one was about news and crime, and the other three were about social issues. These three topics directly related to the community focused on the following social issues: character (1), education (4), and family (5). The topic of *character* focuses mainly on

colonization and the moral character of the black community. The articles analyzed all contained a minimum of six keywords, and the articles that focused on colonization (53 articles out of 86) argue both for and against colonization and in many cases they support or oppose the Colonization Society. What is interesting about this written discussion is the use of the public sphere in the way journalism is meant to function in more contemporary time periods. However, in the 1820s when white newspapers were highly biased, *Freedom's Journal* was initiating conversation for public debate about a topic that affected all citizens. This topic provides a spirited debate about the positives and negatives of colonization. And after several months of debate, the readers of *Freedom's Journal* are instructed to revisit the articles in a few weeks and "peruse them anew...and if you be not convinced, you will have a clear conscience in impeaching either the Society or its present advocates."¹⁰³

Numerous arguments for colonization existed in the pages of *Freedom's Journal*. Some of the more popular arguments included the inability of slaves to be educated or improved, the removal of free blacks in order to benefit slavery, and the removal of all blacks in order to end slavery. Those who supported colonization argued that the black population could not be educated or improved upon, but those supporters were met with counterarguments. In one article, the Society of Quakers maintains that they helped educate and improve the general conditions of black society and that the population "now possess[es] property, and moral and religious character."¹⁰⁴ In addition to their society's help, the Manumission and Abolition Societies of New York and Pennsylvania also produced that same results. They assert that black

¹⁰³ *Freedom's Journal*, November 16, 1827

¹⁰⁴ *Freedom's Journal*, November 9, 1827

society is more than capable of being educated and improved upon, and that they “are rapidly becoming a happy and respected people,” so they should not be removed to a colony, but allowed to “enjoy liberty and civilization.”¹⁰⁵ A previous argument mentioned how the state governments also were beginning to dispel this “improvement” argument as slaves in northern states were being emancipated and their moral character and “their progress in rational pursuits and social life, is equal to that of the whites, of the same class.”¹⁰⁶ These supporters and others were arguing for education of the coloured population because when “you educate our youth, and you remove the moral infection...you elevate the intellect” of the population.¹⁰⁷ In addition to the “improvement” argument, many colonization advocates, particularly in the north, believed that removing black society from America was the most effective way to end slavery. In one article the writer addressed another, titled G.D., who argued that it was better to remove the entire “ignorant and vicious” coloured population of than to set them free in America. But, the writer asked how “men so deplorably ignorant and depraved...would become suddenly changed in the twinkling of an eye on their transportation to the inhospitable shores of Africa.”¹⁰⁸ He then continued to argue that education and preparation of the coloured population would be necessary to release them in any African colony, so why no instead educate and improve their conditions at home.

However, those who disagreed with ending slavery, argued that only free blacks should be removed. If free blacks were colonized, then Americas’ slaves would no longer be problematic.

¹⁰⁵ *Freedom’s Journal*, November 9, 1827

¹⁰⁶ *Freedom’s Journal*, September 28, 1827

¹⁰⁷ *Freedom’s Journal*, February 15, 1828

¹⁰⁸ *Freedom’s Journal*, December 19, 1827

In one article, the writer contends there are two classes of the coloured population, free northern blacks and enslaved southern blacks, and the “colonizing system is intended to benefit the [southern] class,” as many colonizationists believe the “absence of the free blacks with their vices and evil propensities in the southern states, would produce a great degree of contentment and submission among the slaves, whose constant intercourse with this class to be removed, renders municipal regulations necessary.”¹⁰⁹ However, the writer questions the motivation behind the argument when he states: “Are the southern people not anxious to get clear of the free blacks; because they infuse into the minds of the slaves notions of liberty; and because the unavoidable intercourse of the two classes, will gradually enlighten the slaves, render them discontented, and dispose them to insurrection?”¹¹⁰ Another writer who asserts that colonization is “laborious and expensive” endeavor, and it is unlikely free blacks will “quit a country where they are comfortably situated, and emigrate to another, where they are to encounter great hardships.”¹¹¹ In addition, the writer reminds the reader that even of the coloured population was willing to peaceably leave, the country would lose a “large portion of the of the working class,” that are “industrious and useful labourers, and the southern states would....suffer....from the loss of them.”¹¹²

The topic of *education* focused on supporting, promoting, and advocating education within the black community. Ninety-four of the articles analyzed contained a minimum of 3 keywords, and all focus on the theme of education. Nineteen of the 94 articles inform readers where schools

¹⁰⁹ *Freedom's Journal*, September 28, 1827

¹¹⁰ *Freedom's Journal*, September 28, 1827

¹¹¹ *Freedom's Journal*, July 27, 1827

¹¹² *Freedom's Journal*, July 27, 1827

for the black community have opened, or are currently available, and the classes being offered. In addition, seven of the 19 articles thank the Manumission Society for providing the coloured population with schools they can “look upon with pride, or which warrants in him the hope, that the future condition of his race, will be more happy and prosperous than the present.”¹¹³

The rest of the articles promote education in some form. Some articles advocate education outright, fighting against the white community for their resistance in allowing the black population an education. A short article in the domestic news section in 1828 informed readers of a bill that would prohibit the public and private instruction of free persons of color in reading and writing.¹¹⁴ The bill had been sent to the Senate. Seven days later, when the bill passed, the newspaper ran a longer article; however, this time the writer interjected his own opinion in protest of the bill. He said it was “unspeakable, pitiable and alarming” when a state “deemed it necessary for self-preservation” to forbid its black citizens from an education, and he argued that slaveholders knew “knowledge is power,” and that education would cause slaves to unite and fight against prejudice.¹¹⁵

Other articles promote the importance of education within the black community. Again, some articles actively encourage and promote the importance of education for the coloured population; whereas, other articles subtly inspire the readers to obtain an education through anecdotes. One article discussed the dissatisfaction “with our former irregular mode of education” because it “has been unfavourable towards our improvement.”¹¹⁶ In addition, the

¹¹³ *Freedom’s Journal*, July 18, 1828

¹¹⁴ *Freedom’s Journal*, January 11, 1828

¹¹⁵ *Freedom’s Journal*, January 18, 1828

¹¹⁶ *Freedom’s Journal*, May 18, 1827

writer expresses the zealousness “for the future welfare of our race, that we cannot bear the idea, that our children should advance no further than we have, in the acquirement of knowledge.”¹¹⁷ The future of the race is believed to be in education, and more specifically, reading, as numerous articles promote the need for reading and literary societies for the black community. Many times the writer speaks directly to the reader, such as the article that states: “...you can acquire much useful information from books — lose not this opportunity. You are growing old. You will need all the knowledge you can acquire.”¹¹⁸

However, there are articles that consist of only singular anecdotes to subtly encourage the black community by illustrating to them through example what they are capable of with knowledge and education. Anecdotes about the life of well-known people, such as the lives of Toussaint L'Ouverture, Paul Cuffee, George Horton, and Phillis Wheatley, in addition to those about the unknown, such as a man who “could not only read and write, but was so well skilled in figures...he found himself able to engage in nautical and commercial undertaking of great extent.”¹¹⁹ All of these show the black community that others within their population have obtained success through knowledge and education, so they can too.

Under the topic of *family* 118 articles containing a minimum of four keywords were analyzed that contained a variety of substance related to the nuclear family. Some of the articles discuss the family dynamics of other religions and ethnic groups, which shows the open-mindedness of the editors to other religions and ethnicities. Also, numerous articles re-tell stories from the Bible and expound upon their lessons as they relate to the family, such as the need for children

¹¹⁷ *Freedom's Journal*, May 18, 1827

¹¹⁸ *Freedom's Journal*, January 1, 1829

¹¹⁹ *Freedom's Journal*, March 23, 1827

to be obedient.¹²⁰ Other social manners, which many times were connected to God's teachings, included the abstention of parents, particularly fathers, from alcohol and the proper way to raise children.¹²¹ One article expressed the need for daughters to be raised "with real gentility of manners and refinement of sentiment" and sons should know "that every man should labor, that with quietness he may eat his own bread."¹²² The belief being children raised well would become productive members of society, which could only bolster the image of the black community.

Other articles relayed anecdotes, usually positive ones, about families overcoming obstacle, such as the death of a loved one. However, copious articles focused on the tribulations of slavery and the damage and misery it inflicted upon black families. Of the 118 articles, 24 articles mentioned slaves or slavery 104 times. Several of these articles focus on the pain of separating families when "the merchant of human flesh...has seduced the master....and the sprightly son and endearing daughter are torn from their parents – parents who have been faithful and honest servants."¹²³ The articles make evident the sorrow and pain inflicted upon families because of slavery. Other articles focus on the slavery argument with such questions as (1) "to whom would the black body belong? The claim of the black man to his own body is just this – nature gave it to him. He holds it by the grant of God" and (2) whether or not the slave

¹²⁰ *Freedom's Journal*, February 28, 1829

¹²¹ *Freedom's Journal*, January 2, 1829

¹²² *Freedom's Journal*, November 23, 1827

¹²³ *Freedom's Journal*, November 14, 1828

system would be “speedily or greatly reduced by the introduction of European labourers” when discussing emancipation.¹²⁴

Conclusion

Topic models can perform a valuable function in the analysis of big data sets, such as historical newspapers. Since topic modeling can examine a corpus for any period of time, from two years to hundreds of years, scholars can now move beyond the simplicity of keyword searches to more in-depth information about large bodies of text. Scholars can use topic modeling to take advantage of technology and the information it can provide through the use of machine reading, and when combined with close textual reading, the results can provide information and evidence about a body of text that was once unavailable to them. In addition, the topics extracted from large bodies of text, such as newspapers, can be followed and analyzed over time to see if society maintains or changes their viewpoints. Also, topic modeling allows for researchers to narrow their focus, so newspapers can be examined with only a particular broad topic, such as slavery, to be deconstructed into a narrower focus, such as how different states in the U.S. handled slavery or social issues relating to it.

In this chapter, the topics chosen by the computer program illustrate that *Freedom’s Journal* was a newspaper focused on illuminating the evils of slavery; discussing the debates around colonization; encouraging the teachings of God; informing the readership about news, crime, government, and politics; and supporting good character, education, and family values. Though some of these topics seem obvious, such as slavery, others do not. The case study revealed

¹²⁴ *Freedom’s Journal*, March 23, 1827 and April 11, 1828

latent topics, such as character, family values, and God's teachings. The ability to discover unexpected topics in a large corpus is one of the benefits of this digital tool. Another benefit is to analyze topics over time, in this case two years. Determining the time-dynamic of topics, such as colonization, offers researchers not only the ability to follow changes in the discussion over time, but also to find relationships between topics, such as where colonization and character converged. This overlapping of topics might not have been discovered without the use of machine reading. A third benefit is drilling down into one topic. Once a topic is discovered, a researcher can then focus on that particular topic. With the use of keyword searches, and the knowledge provided by topic modeling of where to look and what to look for, more information about a particular topic, such as slavery, can be discovered. But, the most important benefit of topic modeling is probably the ability to analyze, in its entirety, a very large corpus without resorting to sampling. Researchers can study centuries of material, or large databases, which may cause changes in the way text is analyzed.

This case study also made it clear that machine reading and close reading need to be used together for large corpus projects such as historical newspapers. The computer program is a machine without the ability to differentiate between the rules of language. In addition, it cannot contextually analyze text. An expert in the field needs to be part of the study to interpret the information discovered. What the computer program brings to the research is speed and algorithms that allow the researchers to quickly search for patterns within the corpus. It is a symbiotic relationship.

This case study was not intended to provide irrefutable evidence about *Freedom's Journal*. It was meant as an exploration using a different type of tool to discover potentially unknown information about *Freedom's Journal*. It was meant to suggest the possibilities provided by digital tools, such as topic modeling, for future textual scholarship which would expand and enhance traditional research already performed.

References

- Blei, David M. *Topic Modeling and Digital Humanities*. No. 1 Vol. 2 2012. Web. 23 September 2015. <<http://journalofdigitalhumanities.org/2-1/topic-modeling-and-digital-humanities-by-david-m-blei/>>.
- Blevins, Cameron. *Modeling Martha Ballard's Diary*. 1 April 2010. Web. 15 December 2016.
- Block, Sharon . "Tales from the Vault." January 2006. *Common Place: the Journal of Early American Life*. 1 January 2015. <<http://www.common-place-archives.org/vol-06/no-02/tales/>>.
- Boyd-Graber, Jonathan, et al. "Reading Tea Leaves: How humans interpret topic models." *Proceedings of the 23rd Annual Conference on Neural Information Processing Systems* (2009). Print.
- Chang, Jonathan, Jordan Boyd-Graber, Chong Wang, Sean Gerrish, and David M. Blei. "Reading Tea Leaves: How Humans Interpret Topic Models." *Neural Information Processing Systems*. Vancouver, BC, 2009. 1-9. Print.
- Graham, Shawn, Ian Milligan and Scott Weingart. "Topic Modeling: Hands-On Adventure in Big Data." Graham, Shawn, Ian Milligan and Scott Weingart. *Exploring Big Historical Data: The Historian's Macroscope*. London: Imperial College Press, 2016. Print.
- Jockers, Matthew L and David Mimno. "Significant Themes in 19th Century Literature." *Poetics* (2013): 750-769. Print.
- Jockers, Matthew L. *Text Analysis with R for Students of Literature*. Switzerland: Springer International Publishing, 2014. Print. 1 January 2015. <<http://www.matthewjockers.net/2011/09/29/the-lda-buffet-is-now-open-or-latent-dirichlet-allocation-for-english-majors/>>.
- Mimno, David and Andrew McCallum. "Mining a Digital Library for Influential Authors." 2007. *David Mimno*. Web. 15 April 2017. <mimno.infosci.cornell.edu/publications.html>.
- Mimno, David. "Reconstructing Pompeian Households." n.d. *David Mimno*. Web. 15 April 2017. <mimno.infosci.cornell.edu/publications.html>.
- Nelson, Robert K. *Mining the Dispatch*. 2011. web. 1 January 2015.
- Newman, David J and Sharon Block. "Probabilistic Topic Decomposition of an Eighteenth-Century American Newspaper." *Journal of the American Society for Information Science and Technology* 57.6 (2006): 753-767. Print.
- Newman, David J, et al. "Analyzing Entities and Topics in News Articles using Statistical Topic Models." Mehrotra, Sharad, et al. *Intelligence and Security Informatics: IEEE International Conference on Security Informatics*. Germany: Springer, 2006. 93-104. Print.
- Underwood, Ted. *Topic modeling made just simple enough*. 7 April 2012. Web. 10 September 2015. <<https://tedunderwood.com/2012/04/07/topic-modeling-made-just-simple-enough/>>.

Yang, Tze-I, Andrew J Torget and Rada Mihalcea. "Topic Modeling on Historical Newspapers."
*Proceedings of the 5th ACL-HLT Workshop on Language Technology for Cultural Heritage, Social
Sciences, and Humanities* (2011): 96-104. Print.

CHAPTER 5. CONCLUSION: THE LEGACY OF FREEDOM'S JOURNAL

According to John D. Ramage,¹²⁵ some of the time the truth resides outside the work in the world the work depicts. *Freedom's Journal* depicts Americans during the early 1800s, and it reflects the pre-civil war, antebellum period and the struggle between black and white societies in the United States. *Freedom's Journal* is an artifact of history that both reflects and assists the world it inhabits by providing another version of America's history. The newspaper explores and illustrates the truth outside of its pages in the world the newspaper depicts. It possesses both a resonance and a residue.

The Resonance

During its time period, *Freedom's Journal* established an independent, national black newspaper that provided African Americans with a forum within which they could speak for themselves and voice their own opinions about their own concerns, such as education, colonization, and legislation. It also provided them with a vehicle for educating their readership about topics of importance and circulating their opinions outside of their local area. With a known subscription-based circulation of 800, which equaled the circulation of other weekly newspapers at the time, and an even larger suspected readership, *Freedom's Journal* showed that the black community was more than capable of speaking for themselves and creating a space for their community that provided them with a sense of pride and identity.

¹²⁵ Ramage, John D. *Rhetoric: A User's Guide*. New York: Pearson, 2006.

The editors of *Freedom's Journal* used the written word to engage and inform society and try to create a positive space for African Americans in which information would resonate both within and outside of the black community. They used the printed word to educate and inform their black readership, a community that was not only excluded by white publishers, but many times denigrated by them. In addition to informative material for the community, their words opposed slavery and inequality and began the process of building a black community with a national identity. By choosing the content that was placed within the pages of *Freedom's Journal*, the editors curated two years of conversations by making certain information salient, information that would resonate with their readers. This resonance of information within a printed medium allowed the restructuring of consciousness of those who read the newspaper, thereby possibly changing beliefs and values over time.

The Residue

Newspapers are important primary sources that preserve information that help reconstruct occurrences, document history, and facilitate society's understanding of what took place during certain time periods in history. *Freedom's Journal* is significant because it became a memory capsule. It composed a printed history, locally, nationally, and internationally, of the African American culture from 1827-1829. It not only showed the fight for their civil rights and the continued development of a unified community, but as an artifact it illustrated and preserved the history of their journey. The editors of *Freedom's Journal*, wrote the artifact, which illustrates the difference between American history told through white newspapers and that of black newspapers. *Freedom's Journal* produced a valuable new perspective about society in the

19th century, and it also bequeathed an artifact that provides a written residue that has survived for centuries.

In addition, *Freedom's Journal* laid a foundation for all black newspapers that followed it to build upon by establishing an example of what a black newspaper could provide its readership. The editors reported on stories that the white media either didn't cover, or covered inaccurately. It re-interpreted information and provided its readership with a new way of looking at the current situation, thereby, educating and empowering the black community. It laid the groundwork and provided the impetus for future black newspapers that would produce the printed words and continue to transform racial beliefs for African Americans within the country.

What This Project Brings to the Conversation

The digital humanities is building upon print's foundation and using digital archive material, such as historical newspapers, to allow researchers (and society) to examine, analyze, and interpret information differently in the digital realm than it does with print. Historical newspapers are a catalyst between print and digital. Newspapers, since their creation, have been a source of present-day information (resonance), recorded history (residue) and lasting artifact, and with digital preservation and digital tools this primary source is changing from stagnant artifact to a dynamic representation of history. Newspapers are the historical records of permanent information as society collects and preserves them.

From bound newsprint to a more permanent and accessible microfilm to digital archives, historical newspapers as a primary source material exist as an artifact that offers history new

ways to tell a story. Through digital projects of historical newspapers, a different kind of representation and use of primary source materials can be achieved. Projects such as *The Resonance and Residue of the First African American Newspaper* are about a different kind of representation and use of primary source material. They are about using digital tools not only to help create those representations, but also to help interpret and analyze them. *Freedom's Journal* offers a resource for in-depth research through the digital realm that has not been explored. Information discovered with digital technology adds to the research discovered from the print medium by not only accessing different data, but by presenting a different kind of representation of the data, which will increase society's knowledge of *Freedom's Journal* and its contribution to America's history. The digital tools employed within this project illustrate new approaches for analyzing and understanding *Freedom's Journal* as an important artifact. This project combines algorithmic techniques, such as data mining and topic modeling, with traditional analysis to better understand the value of *Freedom's Journal* as a medium in 1827 and currently.

By employing a combination of close reading and machine reading to *Freedom's Journal* to interpret and analyze it, the project illustrates the credibility of machine reading to research large amounts of text. The digital tools used in these case studies offer the promise of a future where digital texts are machine read – basically a remediation of traditional research methods. This remediation is a partnership in which studies combine both close and distant reading to provide new and potentially invaluable information for researchers. The direct benefits, so far, are (1) discovering hidden and unexpected patterns within the text; following issues or subjects

over time; drilling down into discovered content for a more focused exploration; analyzing prohibitively large amounts of text; and looking into what the future brings.

For this project, specifically, the future can bring numerous research projects. First, research that combines geolocation and topic modeling is possible, where the two projects are linked to measure quantitative and qualitative factors within the digitized content. For example, a study could just focus on a location, such as Africa, or a region, such as the south. The project could measure the locations important within that area and then combine it with the topics, such as slavery or colonization, that the editors published. In addition, it could follow these topics over the two-year time period. Another project could focus on white newspapers in the northern region. Either tool would bring new information to the conversation by looking at the locations and topics within white newspapers within the immediate New York area. Or, choose one location, such as Philadelphia, and do the same. A third project could use the traditional rhetorical analysis and supplement it with information from these two projects, or compare the traditional with the digital and see where they converged or diverged on topics. And, none of those focus on interactive visualizations, which is a focus of spatial history, in which viewers/readers can interact with and analyze the material, such as in *Valley of the Shadow*. The future is endless.

In closing, this project was meant as an exploration using different types of tools to discover potentially unknown information about *Freedom's Journal*. It was meant to suggest the possibilities provided by digital tools, such as topic modeling, for future textual scholarship which would expand and enhance the research already performed, in this case, by Jacqueline

Bacon in her book, *Freedom's Journal: The First African American Newspaper*. Each of the locations discovered in the first case study and each of the 22 topics discovered in the second case study can be researched further using both digital and traditional research methods to further explore the residue left by the first African American newspaper.

APPENDIX A: LIST OF TOPICS WITH DEFINITIONS

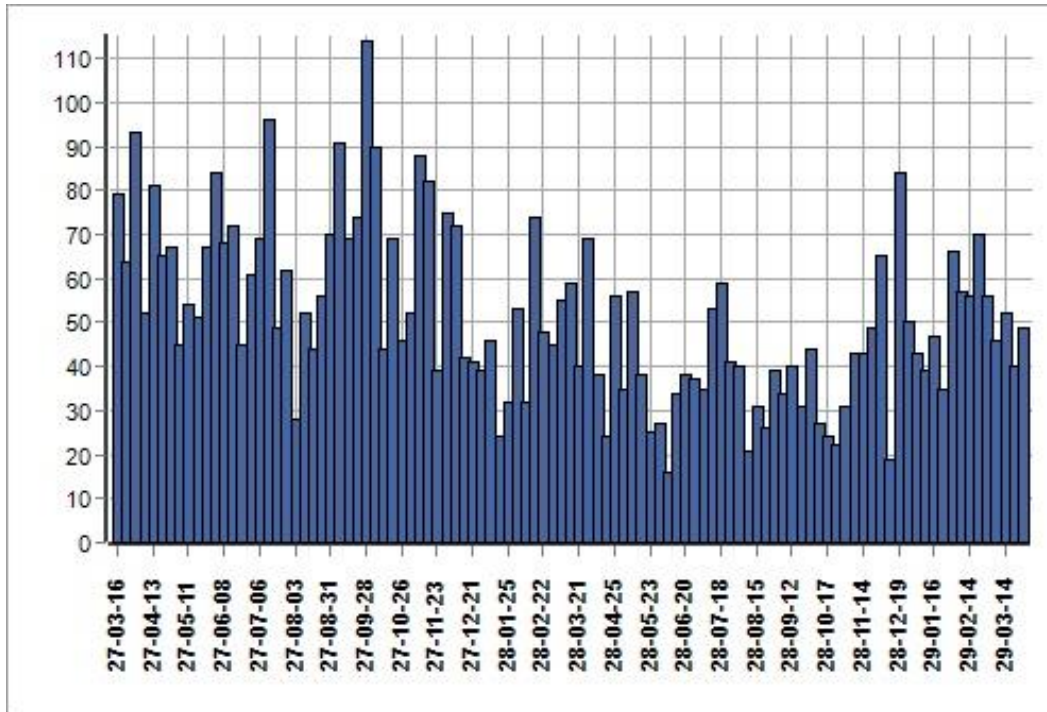
TOPIC	KEYWORDS	EIGENVALUE	% VAR	FREQ	CASES	% CASES
1 - CHARACTER The topic is about the character of the black community. Most of it focused on colonization with character being part of both arguments - for and against.	COMMUNITY; MORAL; SOCIETY; CLASS; COLONIZATION; INFLUENCE; INSTITUTION; CHARACTER; PRINCIPLE; EXIST; INDIVIDUAL; PEOPLE; COLOUR; POPULATION; OBJECT	17.72	1.53	5310	103	100.00%
2 - NEWS AND CRIME This topic is about the news. It covers crimes, house fires, drownings, etc.	COMMIT; PRISONER; MURDER; CHARGE; COURT; COUNTY; KILL; BOSTON; ATTEMPT	5.69	0.89	2087	103	100.00%
3 - FACE; MOMENT This topic has no real theme to it.	FACE; MOMENT; HEAD; TURN; HAND; EYE; ROUND; SIDE; FALL; TEAR; ARM; ROOM; STAND; SIT; VOICE	3.81	1.23	5167	103	100.00%
4 - EDUCATION This topic supports education for the black population and also makes known when school open for black children to attend. In addition, it also advocates reading.	SCHOOL; READ; EDUCATION; WRITE; BOOK; KNOWLEDGE; RACE	2.67	0.59	1971	103	100.00%
5 - FAMILY This topic contained a variety of information related to the nuclear family, such as separating slave families, behavior and teaching of children, and the dynamics of families in other religions/ethnic backgrounds.	FATHER; MOTHER; CHILD; SON; PARENT; DAUGHTER	2.41	0.69	2027	103	100.00%
6 - SLAVERY COMMERCE This topic focuses on money as it relates to slavery: the selling of slaves, the loaning out of slaves, the expense of slavery to the master, etc.	MASTER; SELL; MONEY; PURCHASE; PAY; DOLLAR; SLAVE; HUNDRED	2.34	0.71	3062	103	100.00%
7 - COMMITTEE WORK This topic contains information about local, regional, and national committees and meetings about slavery, politics, schools, etc.	COMMITTEE; APPOINT; REPORT; RESOLVE; ADOPT; MEETING; DISTRICT	2.24	0.61	1578	103	100.00%

8 – SEA TRAVEL This topic involves the shipping industry and the articles pertains to stories about voyages, ship wrecks, fishing, crimes, colonization, etc.	VESSEL; SHIP; CAPTAIN; BOARD; BOAT; SEA; ARRIVE	1.99	0.73	1746	103	100.00%
9 – TIME OF DAY This topic has no real theme to it.	CLOCK; MORNING; NIGHT; ROOM; HOUR; BED; EVENING; DOOR; HOUSE	1.86	0.65	3042	103	100.00%
10 – FORCE This topic has no real theme to it and only one keyword.	FORCE	1.85	0.63	226	89	86.41%
11 – MARRIED LIFE These topics tend to involve marriage: people who are married, getting married, or were married and killed the spouse. Sometimes it is just a marriage notice. Those who are already married tended to focus on married life.	WIFE; HUSBAND; MARRY; WOMAN; LADY; YOUNG	1.79	0.64	2404	103	100.00%
12 - POPULATION This topic has a slavery theme within it. The articles discuss the number of slaves in particular locations, the price of slaves, the population of slaves, etc all over the world – not just in the US. It also has information about schools for various populations.	POPULATION; INCREASE; NUMBER	1.77	0.55	810	103	100.00%
13 – GLOBAL GOVERNMENT This topic is about government, particularly British and French government. The slave trade and laws regarding it are throughout this topic.	ENGLISH; ENGLAND; BRITISH; KING; LONDON; FRENCH; GOVERNMENT	1.71	0.59	1635	103	100.00%
14 – CHURCH NEWS This topic revolves around all news church related: concerts, meetings, marriages, and there are a few articles about slaves who were killed or missing or the abolition of slavery.	REV; MISS; INST; CITY; CHURCH; DR; EVENING; PHILADELPHIA	1.67	0.60	2580	103	100.00%

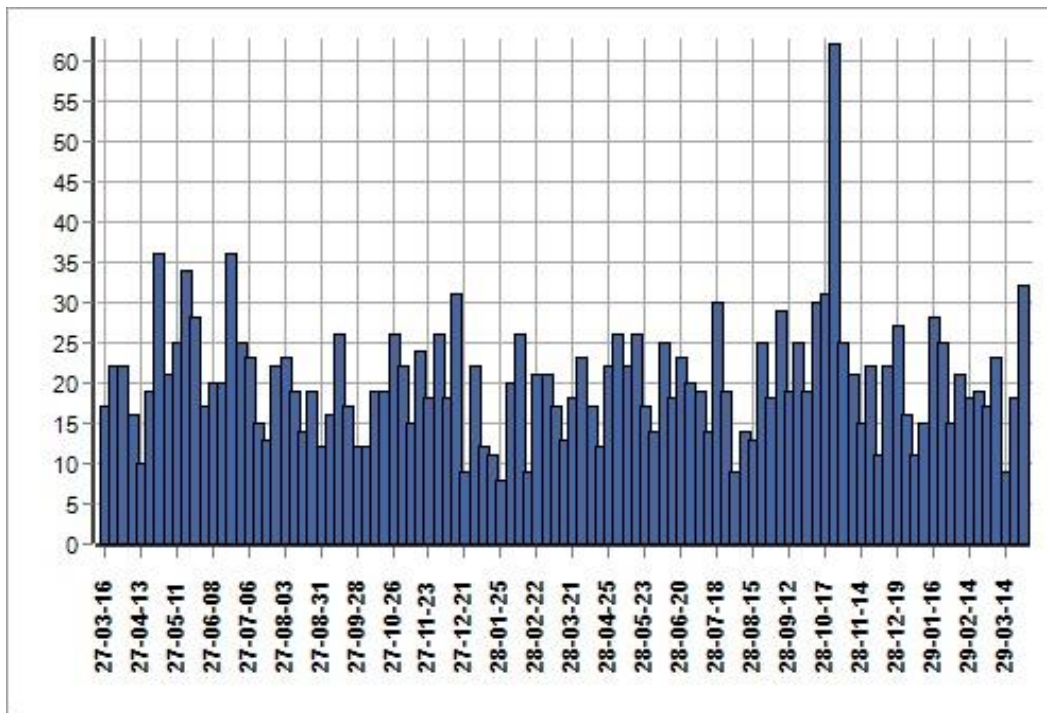
<p>15 - FREEDOM'S JOURNAL</p> <p>This is revolves around all the information about <i>Freedom's Journal</i> from the publication cost to the names of the editors to how often it's published. Other topics revolve around letters to the JOURNAL involving colonization, slavery, and other topics of interest. Sometimes PAPER and Journal refer to other newspapers within which information was seen.</p>	JOURNAL; EDITOR; PAPER; FREE; PUBLISH	1.65	0.51	2406	103	100.00%
<p>16 – GOD'S TEACHING</p> <p>This topic focuses and God and his teachings.</p>	HAPPINESS; SOUL; HEART; HAPPY; HEAVEN; PLEASURE; WORLD; ENJOY; GOD; LIFE; MIND; HUMAN; EARTH	1.62	0.93	4629	103	100.00%
<p>17 – PUBLIC INFORMATION</p> <p>This topic contains public information such as businesses openings/information, celebrations, church information, public meetings, society information, and other matters that might be of interest to the community.</p>	INFORM; PUBLIC; STREET	1.60	0.70	1311	103	100.00%
<p>18 – CURRENT AFFAIRS (NEWS)</p> <p>This topic contains information about local, regional, national, global information about slavery, politics, schools, colonization, politics, business, emancipation, crimes, and other information of interest to the public.</p>	CITIZEN; STATE; DISTRICT; EQUAL	1.58	0.56	1877	103	100.00%
<p>19 – DEATH AND DRINKING</p> <p>This topic makes known to the public those who have died or been accused/convicted of drunkenness.</p>	DRINK; DIE; DEATH	1.56	0.57	1170	103	100.00%
<p>20 – Q&A</p> <p>This topic has no real theme to it.</p>	ANSWER; QUESTION; REPLY	1.53	0.54	828	103	100.00%
<p>21 – SLAVERY</p> <p>This topic revolves around slavery and its evils and the need for abolition.</p>	SLAVERY; ABOLITION; SYSTEM; SLAVE; DISTRICT; EVIL; EFFECT; SUBJECT	1.51	0.78	2419	103	100.00%
<p>22 – LOSS BY FIRE</p> <p>This topic informs the public of all the fires throughout New York and the northeast. It explains who was killed and what was destroyed and what time of day/night the fire broke out.</p>	FIRE; DESTROY; BURN; BREAK; KILL; CLOCK	1.51	0.66	1092	103	100.00%
<p>23 – COLONIZATION</p> <p>This topic focuses on colonization: the arguments for and against it, the institutions and societies connected to it, the countries were it's located, and people's opinions and reports about it.</p>	AFRICA; COLONIZATION; AMERICA; COLONY; NATIVE; COUNTRY; LAND	1.47	0.67	2370	103	100.00%

24 – TIME This topic has no real theme to it.	YEAR; AGE; TWENTY; MONTH; WEEK; HALF	1.45	0.69	3153	103	100.00%
25 – RACE/COLOUR This topic focuses on the actual color of people from white to mulatto to black. It also looks at the skin color of other ethnicities, such as the Arabs and the Ethiopians. Skin color is the dominate theme in this topic which spans a variety of concepts from slavery, to legal issues, to equality, to colonization, and more.	BLACK; WHITE; NEGRO; COLOUR; RACE	1.43	0.58	966	103	100.00%
26 – HUMANITY AGAINST SLAVE TRADE This topic is about the slave trade and how it is against humanity to trade in human flesh, and it is the duty of citizens to fight against the slave trade.	DUTY; HUMANITY; TRADE	1.43	0.47	682	103	100.00%
27 – HORSE TRANSPORT This topic is about news concerning horses, such as accidents with carriages or horses, the sale of horses, and other information that relates to life in a time period where horses were modes of trasnport.	MILE; RIVER; FOOT; WATER; HORSE	1.42	0.57	1293	103	100.00%
29 – CASE This topic does not have three or more keywords. It revolves around cases in the courts and the laws that go with them.	CASE; LAW	1.40	0.54	916	103	100.00%
30 – SOCIETY This topic has no real theme to it, and it does not have three or more keywords.	SOCIETY; BROTHER	1.39	0.45	507	100	97.09%
Topic 28 does not exist. The topic modeling program did not assign a topic.						

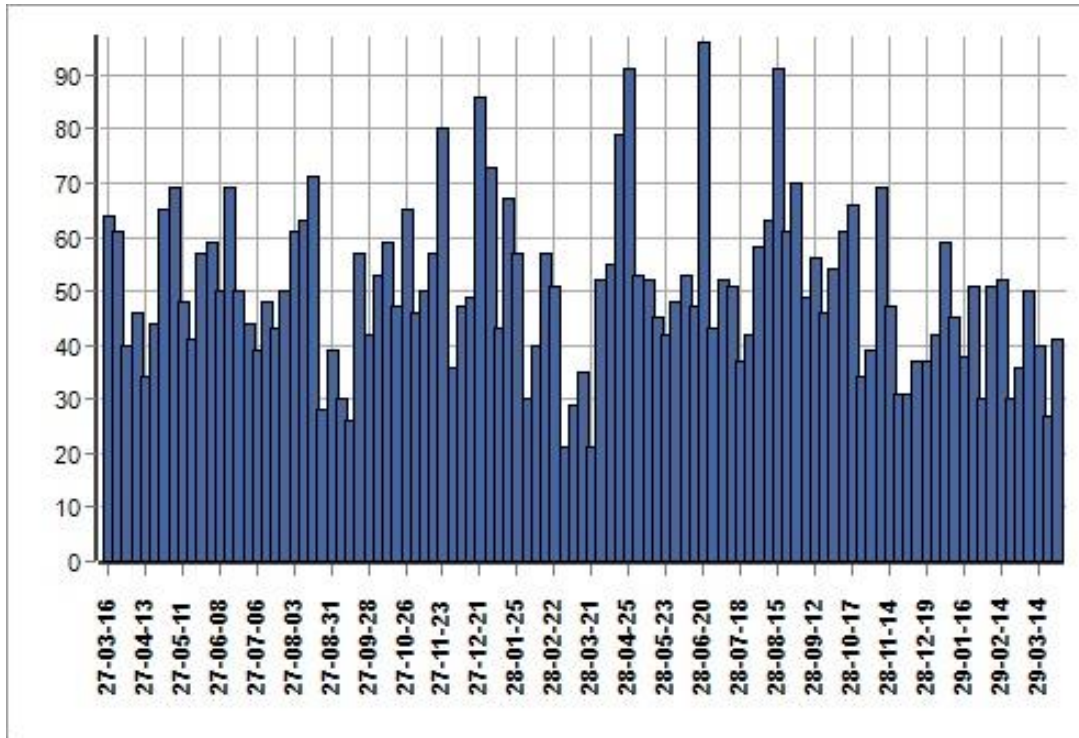
APPENDIX B: KEYWORDS PER ISSUE PER TOPIC



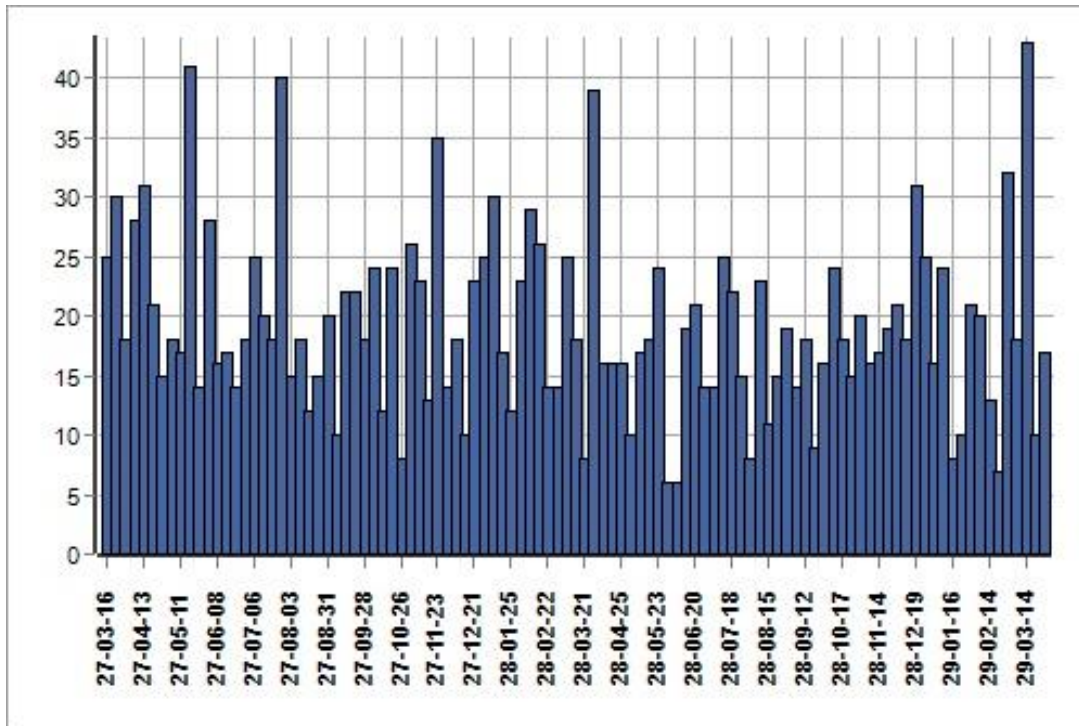
Topic 1.



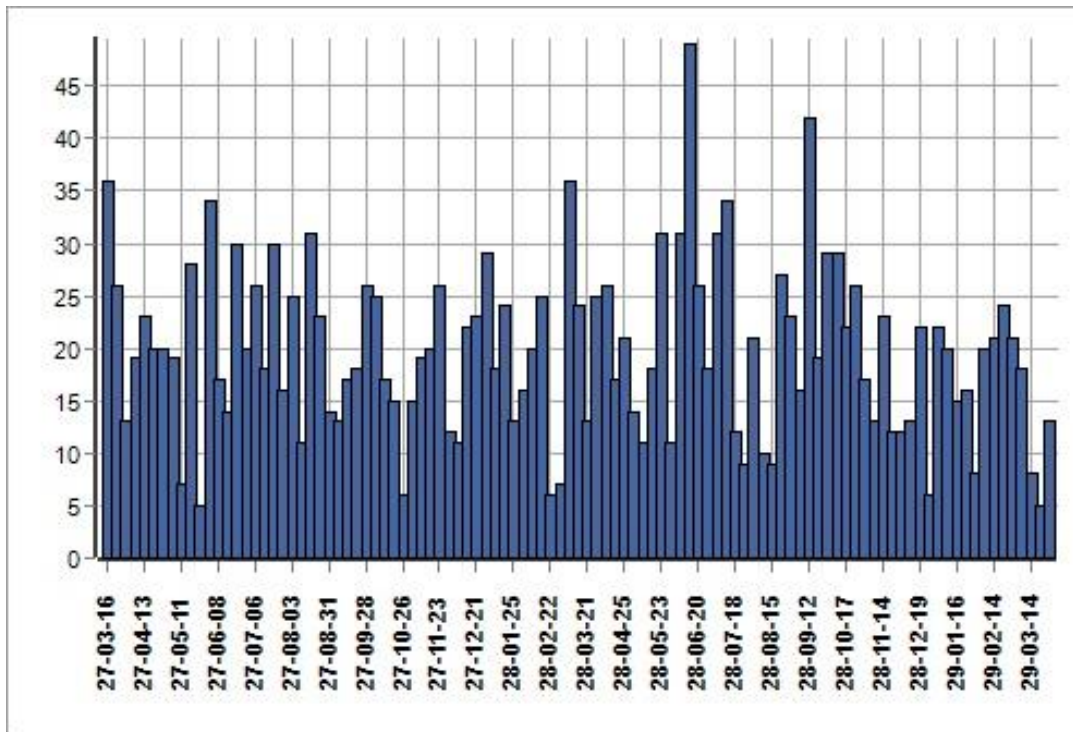
Topic 2.



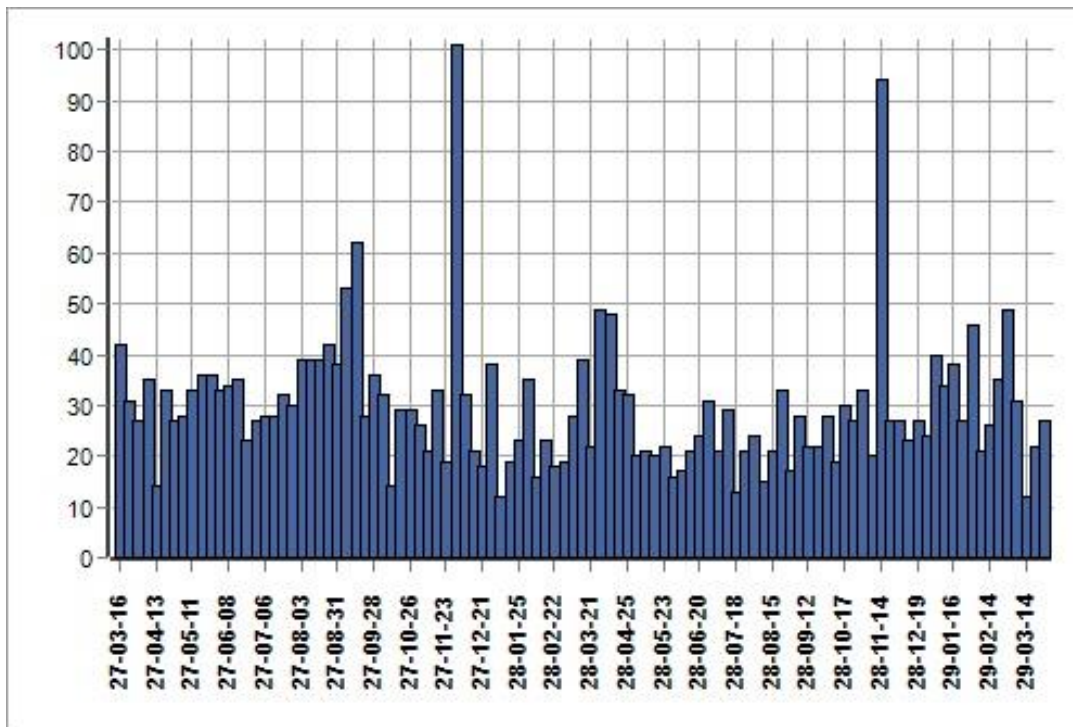
Topic 3.



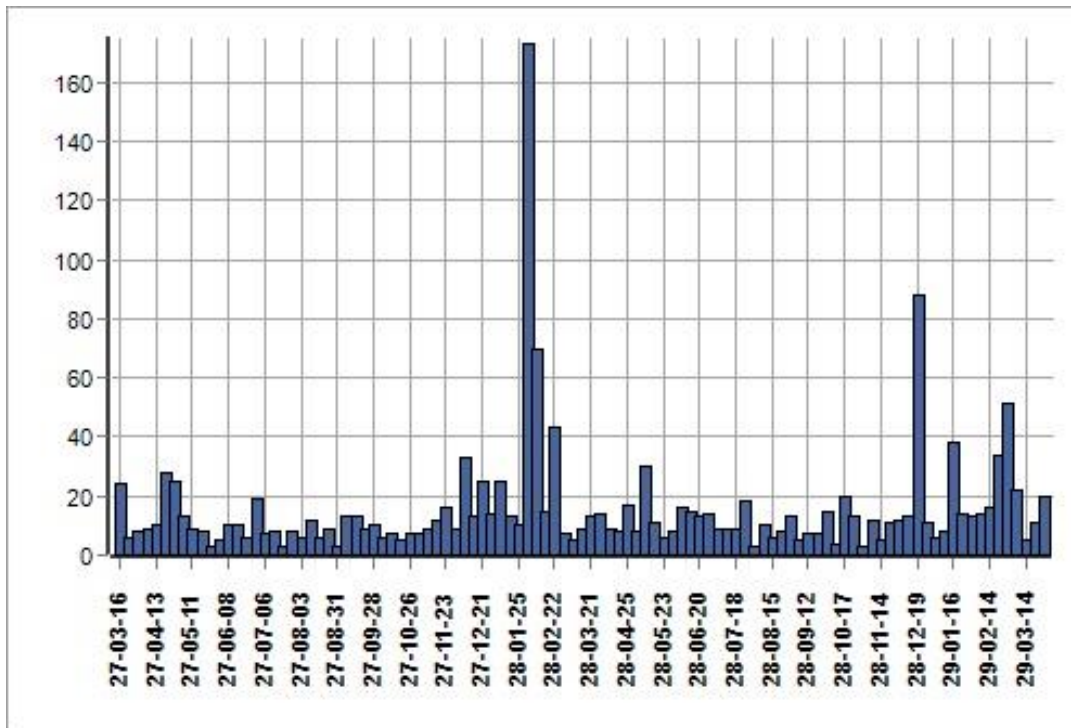
Topic 4.



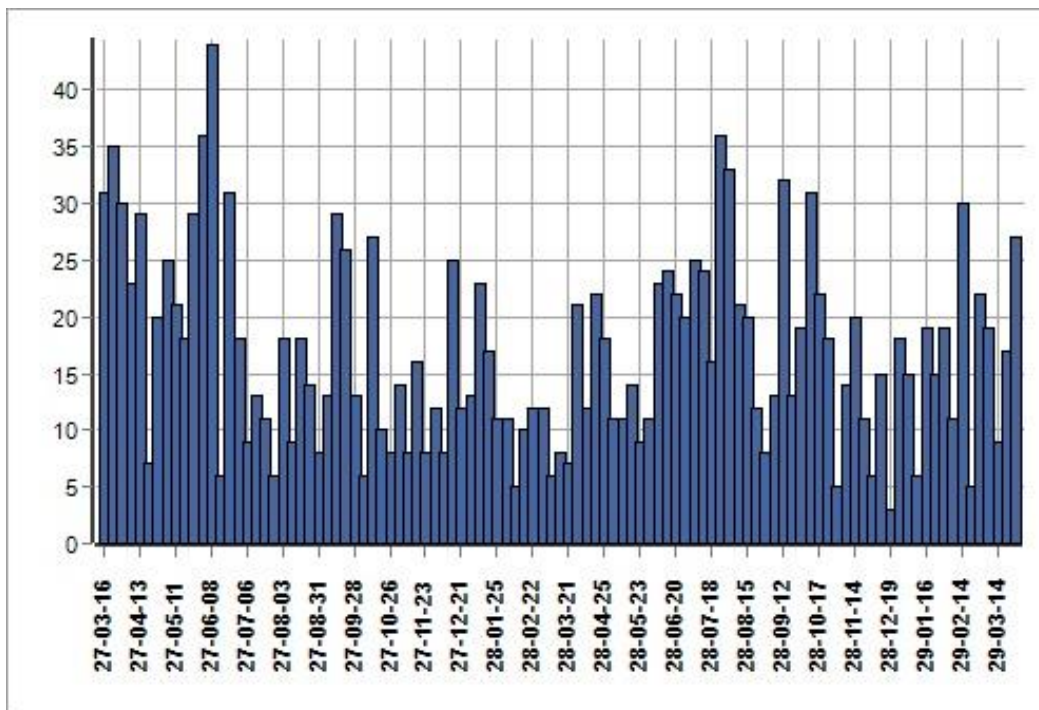
Topic 5.



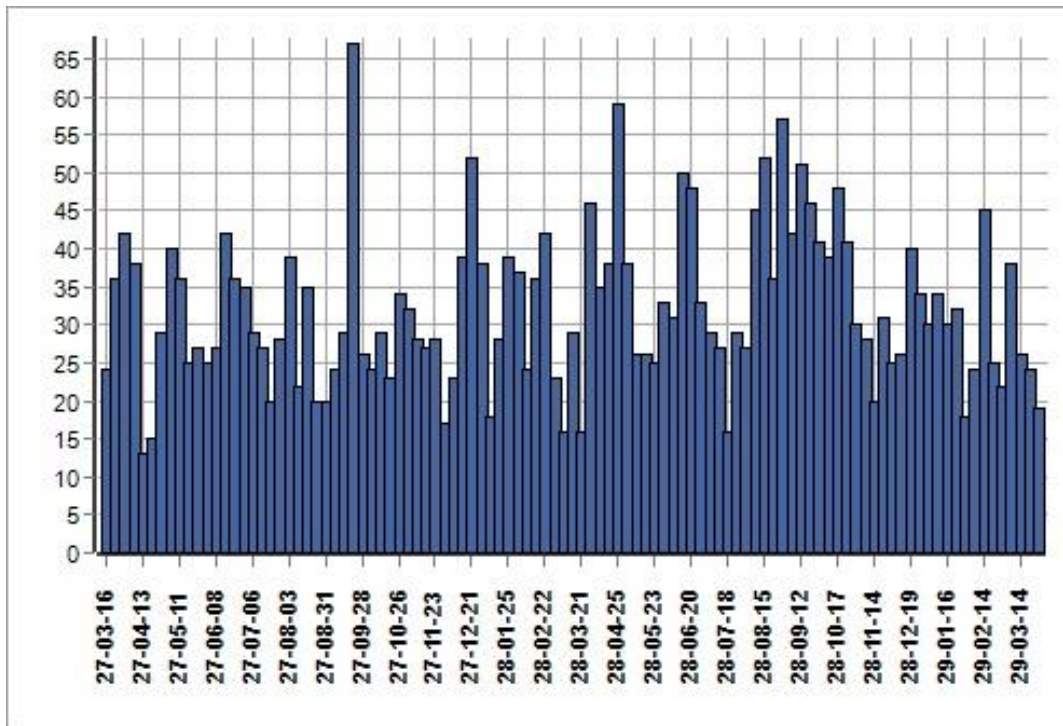
Topic 6.



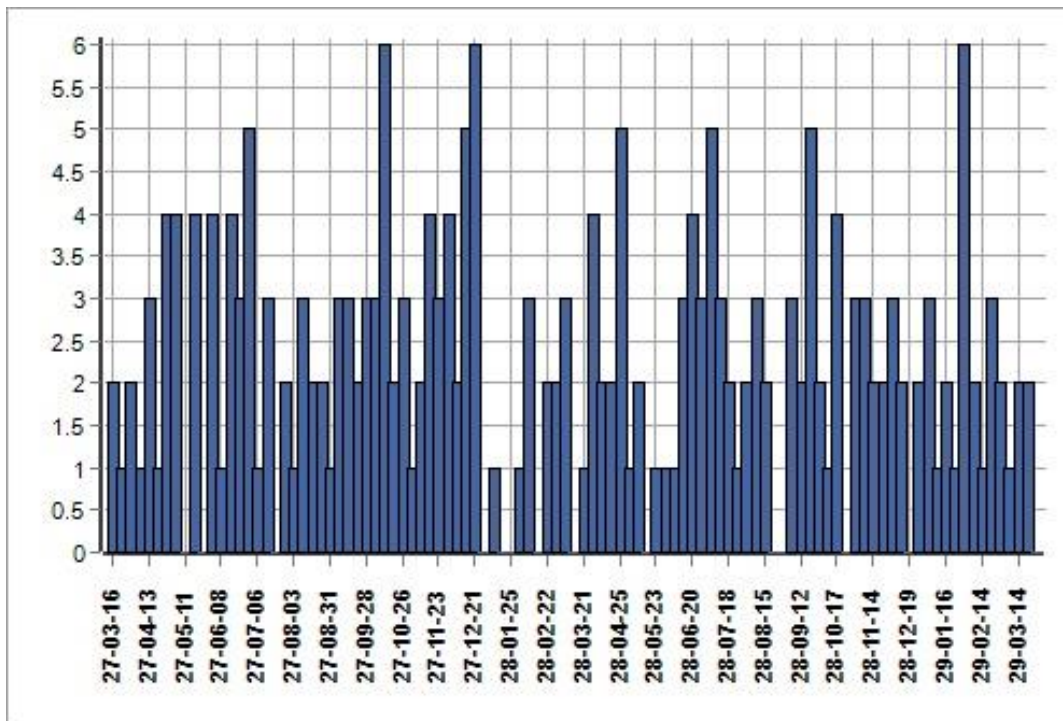
Topic 7.



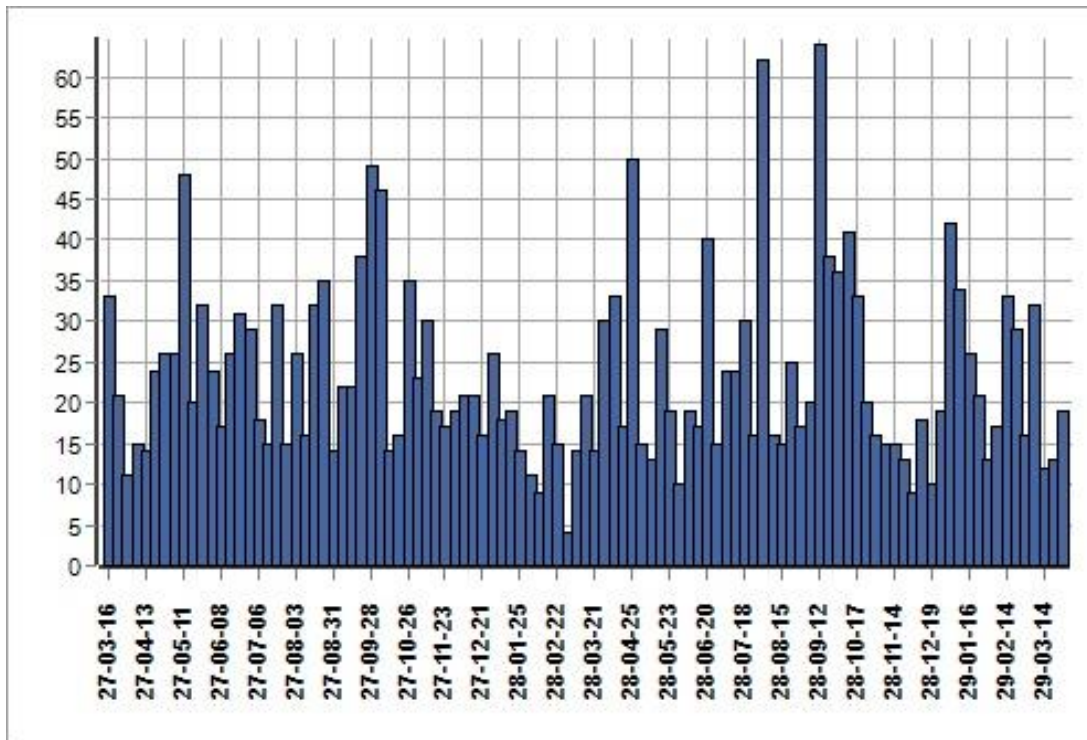
Topic 8.



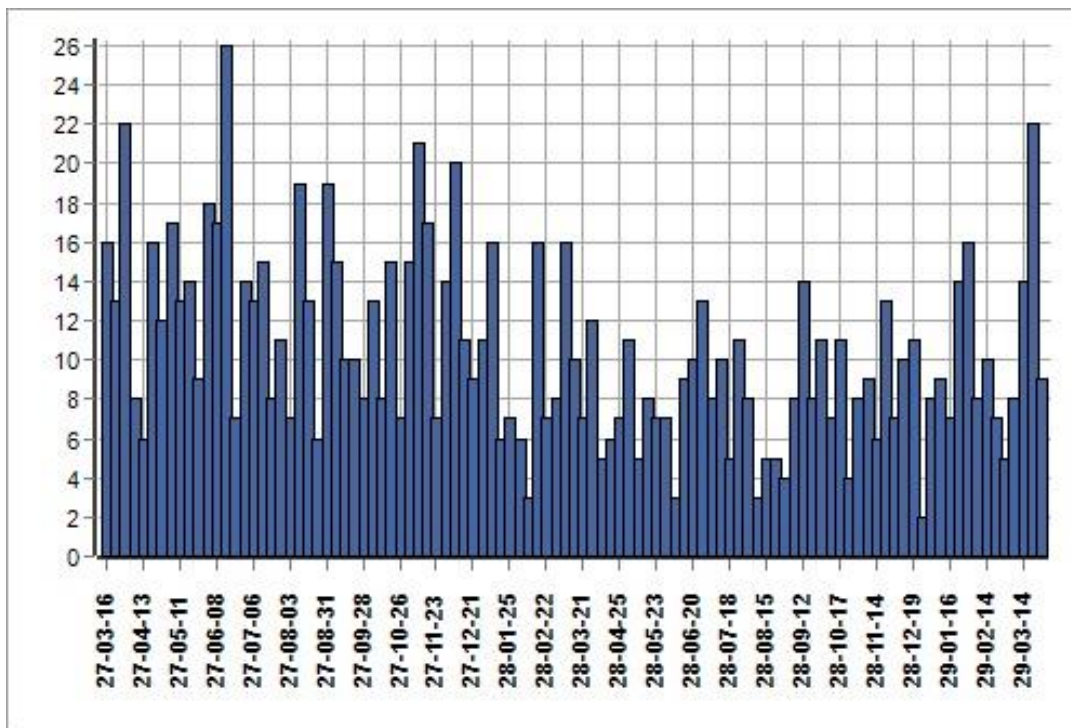
Topic 9.

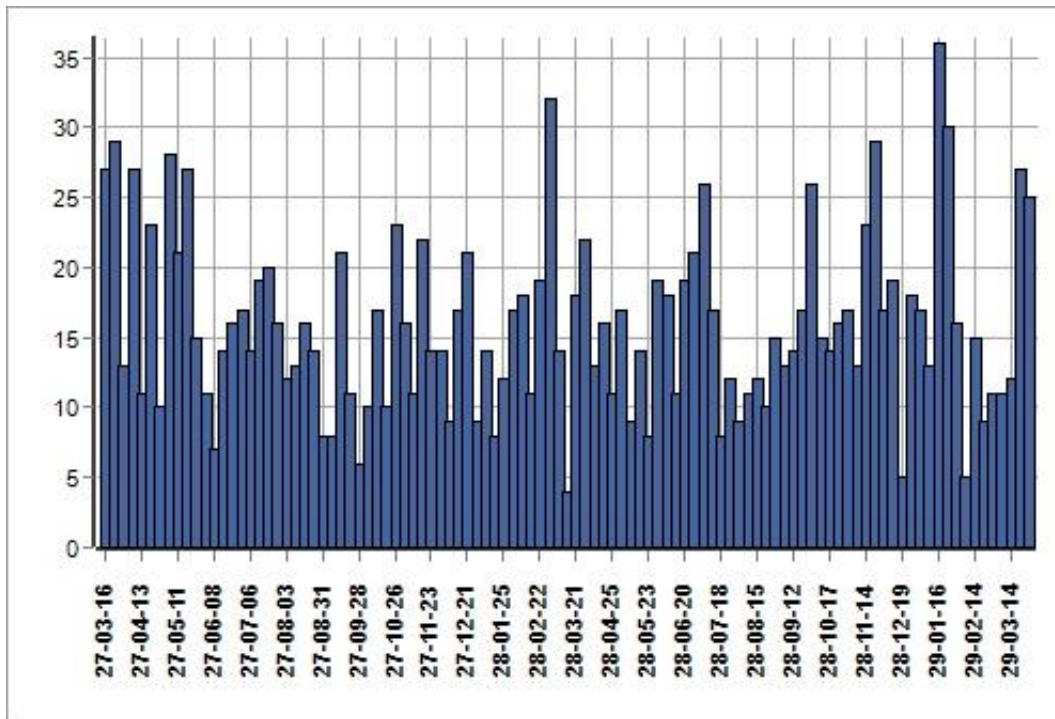


Topic 10.

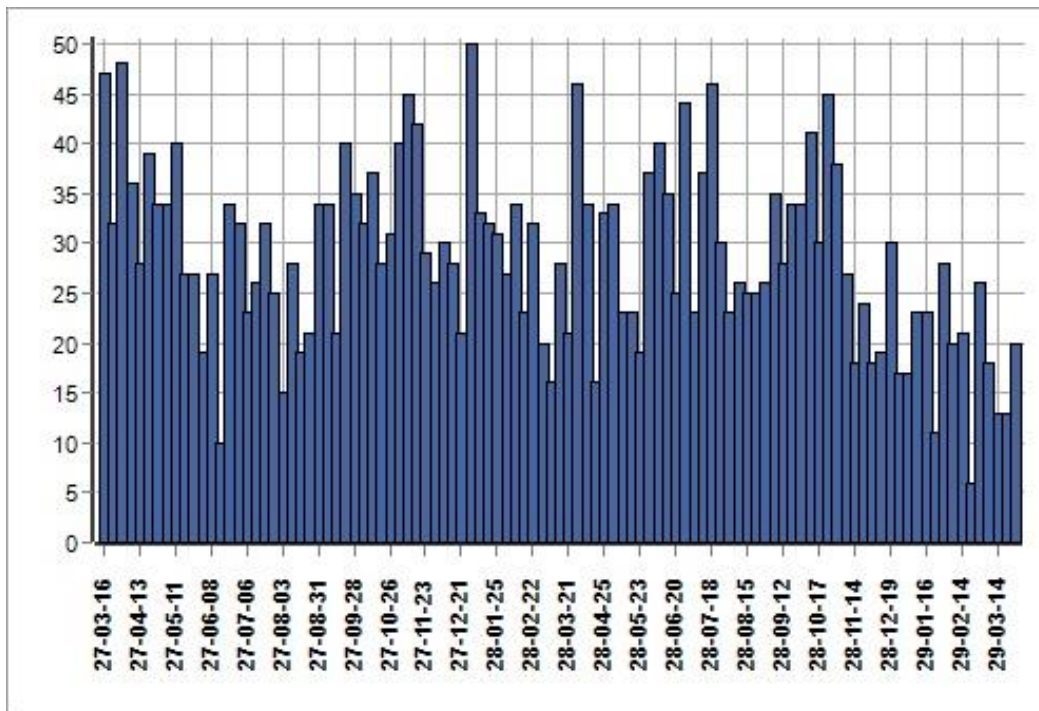


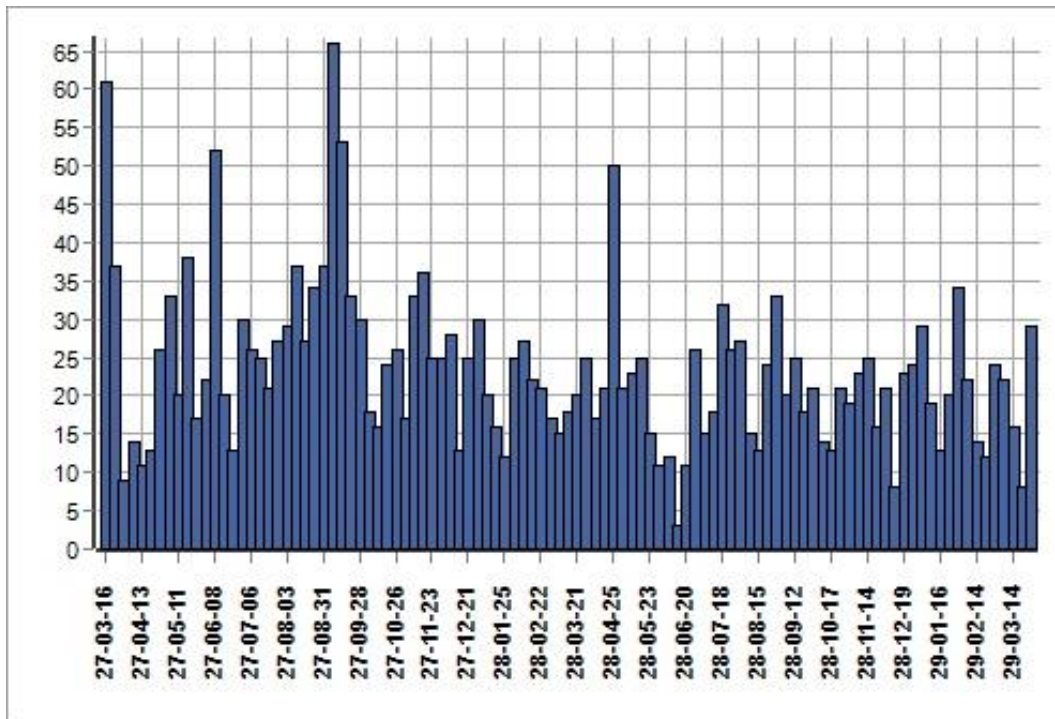
Topic 11.



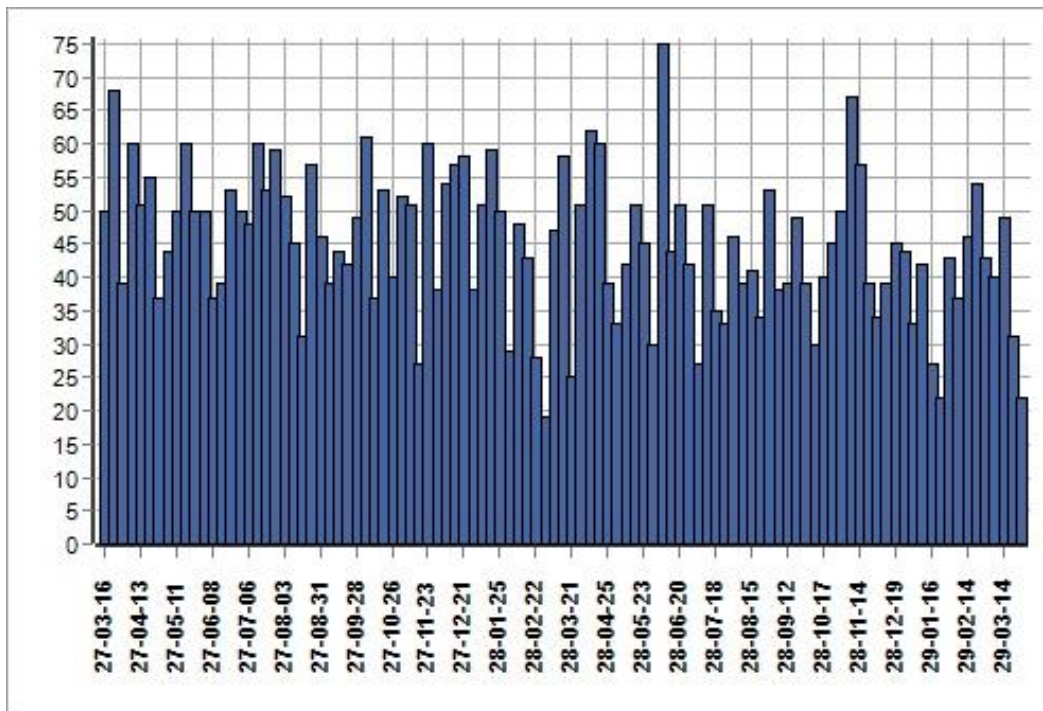


Topic 13.

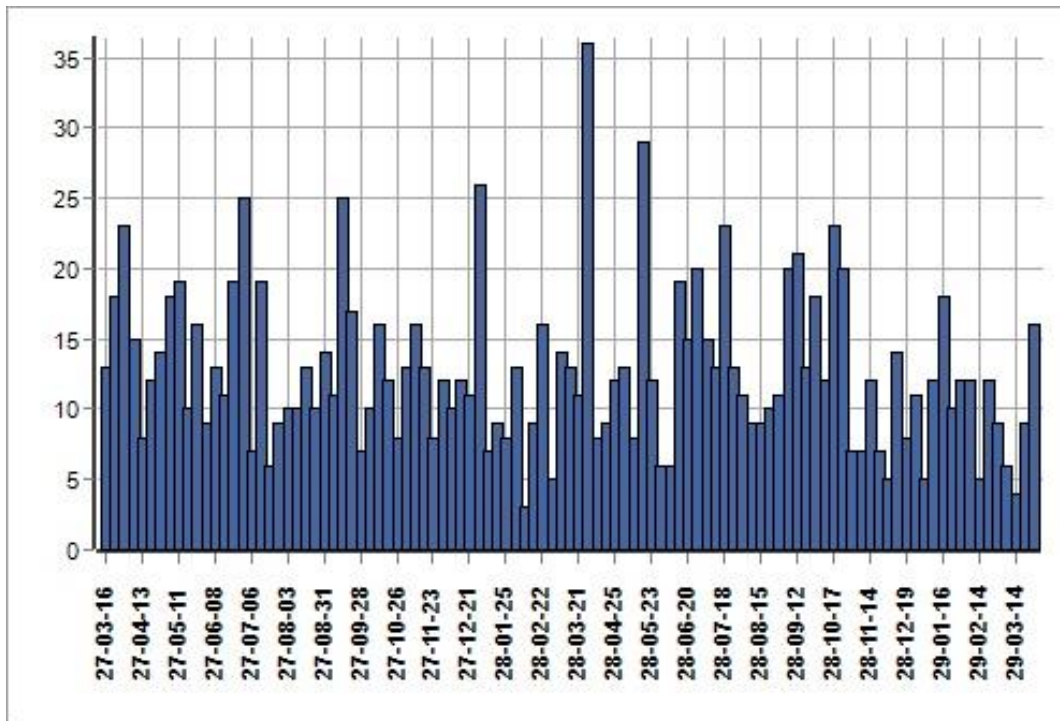




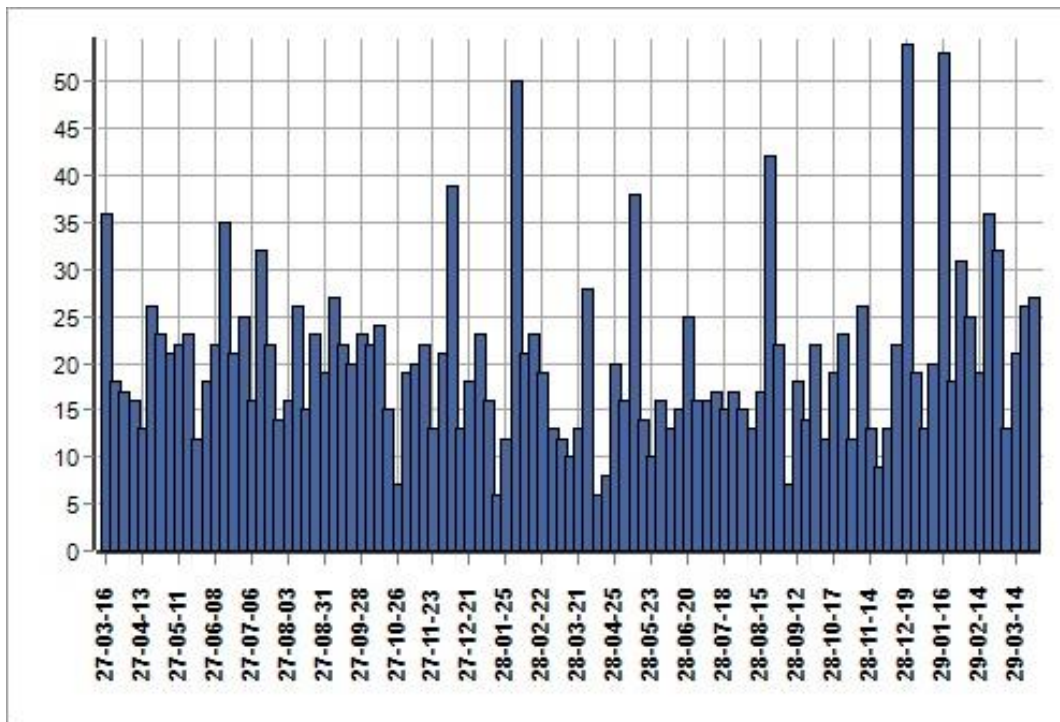
Topic 15.



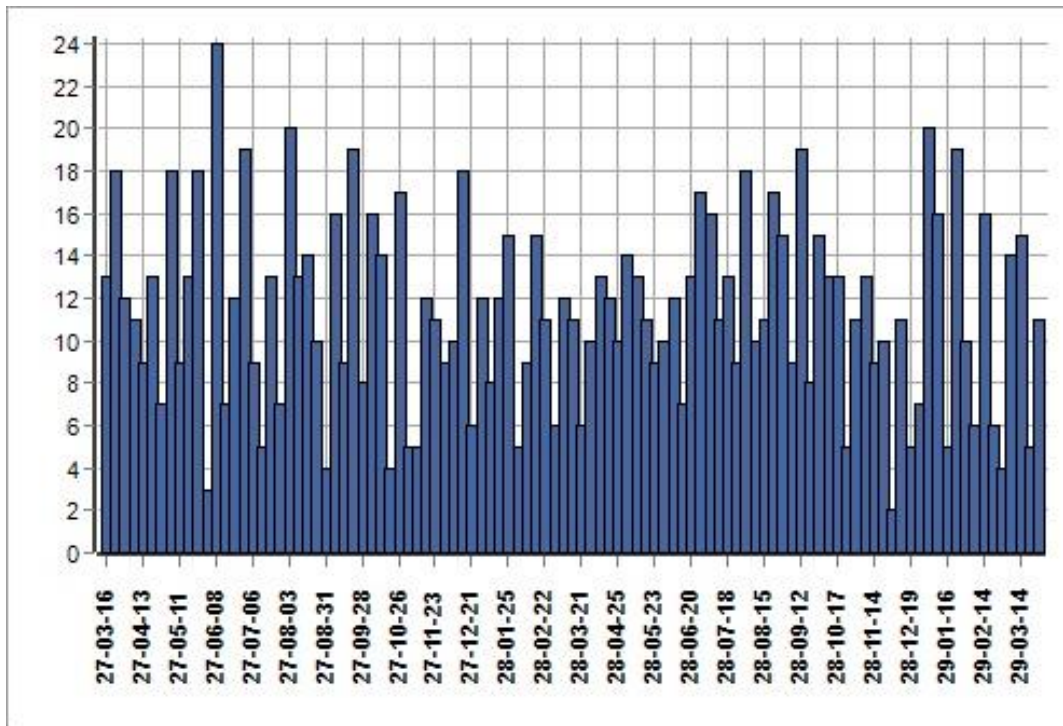
Topic 16.



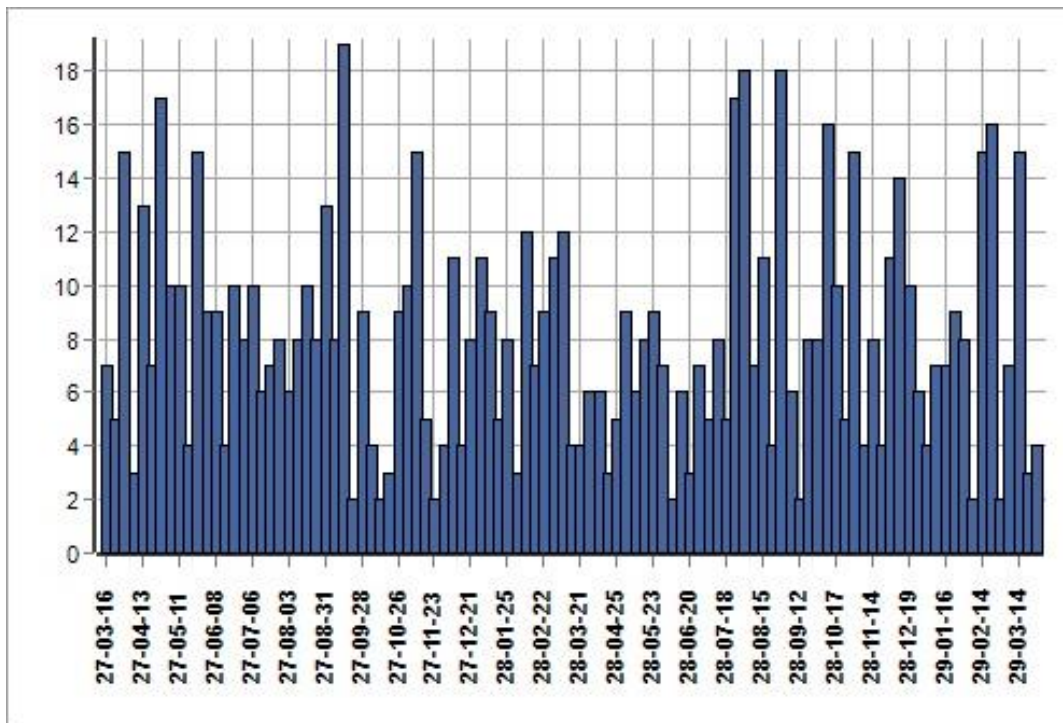
Topic 17.



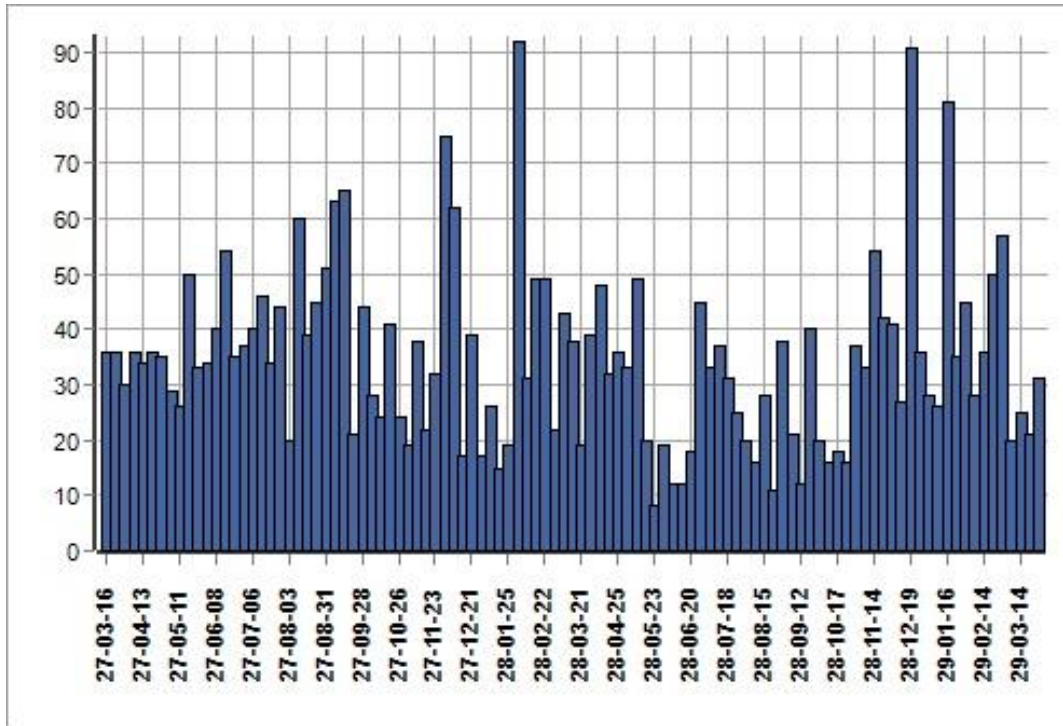
Topic 18.



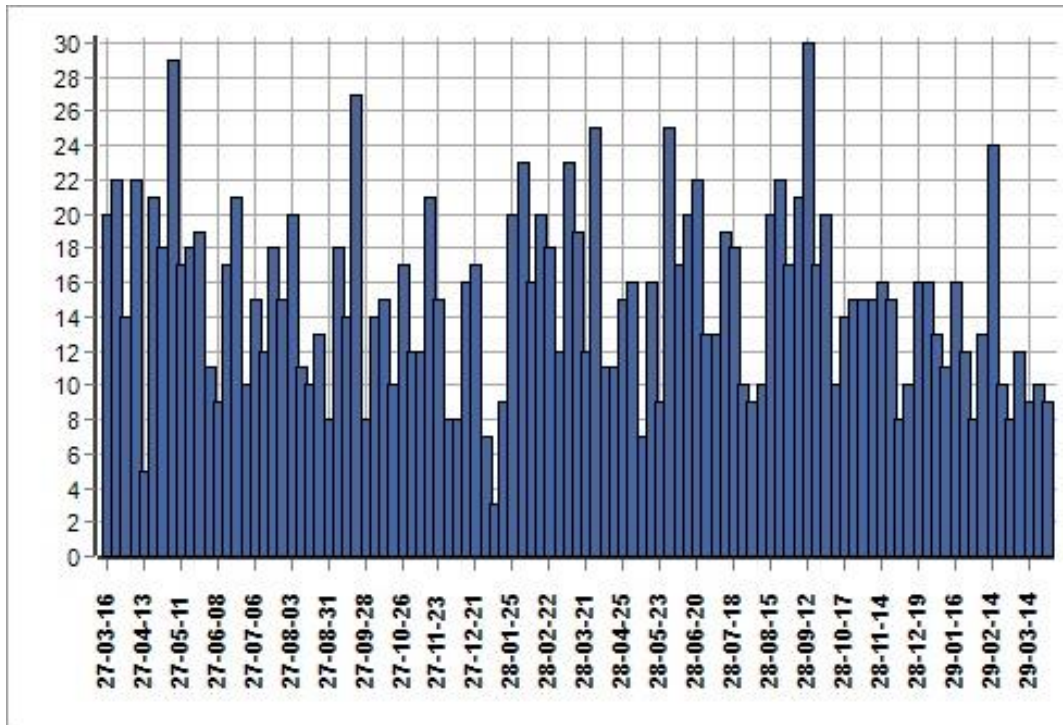
Topic 19.



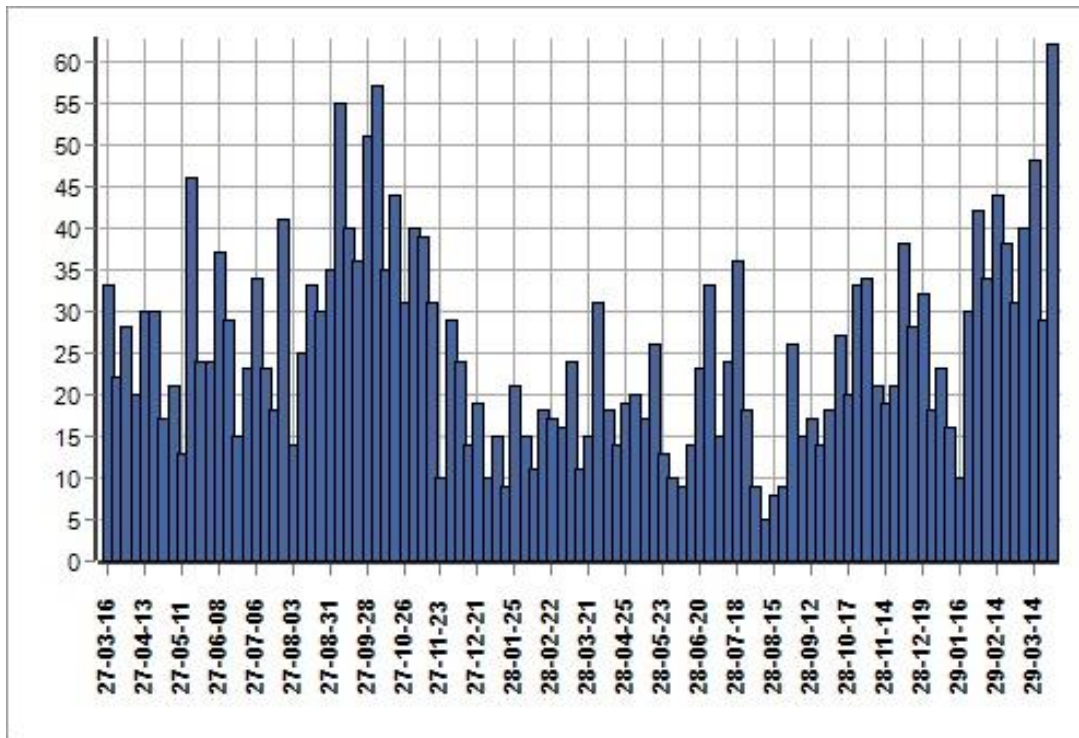
Topic 20.



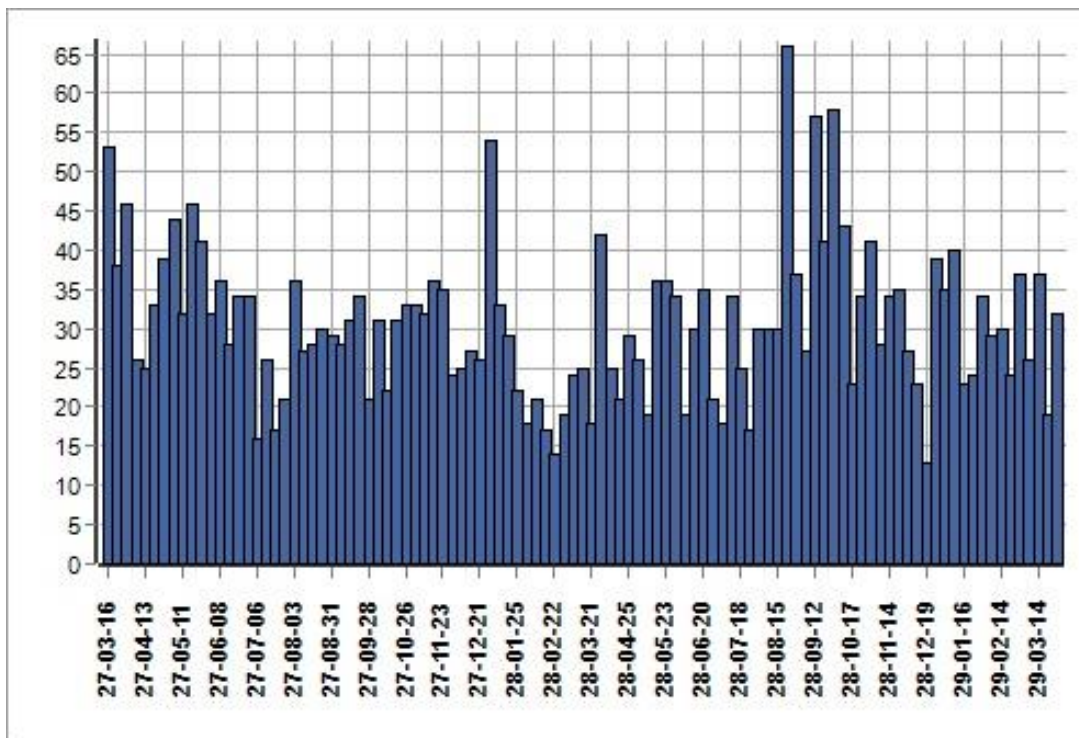
Topic 21.



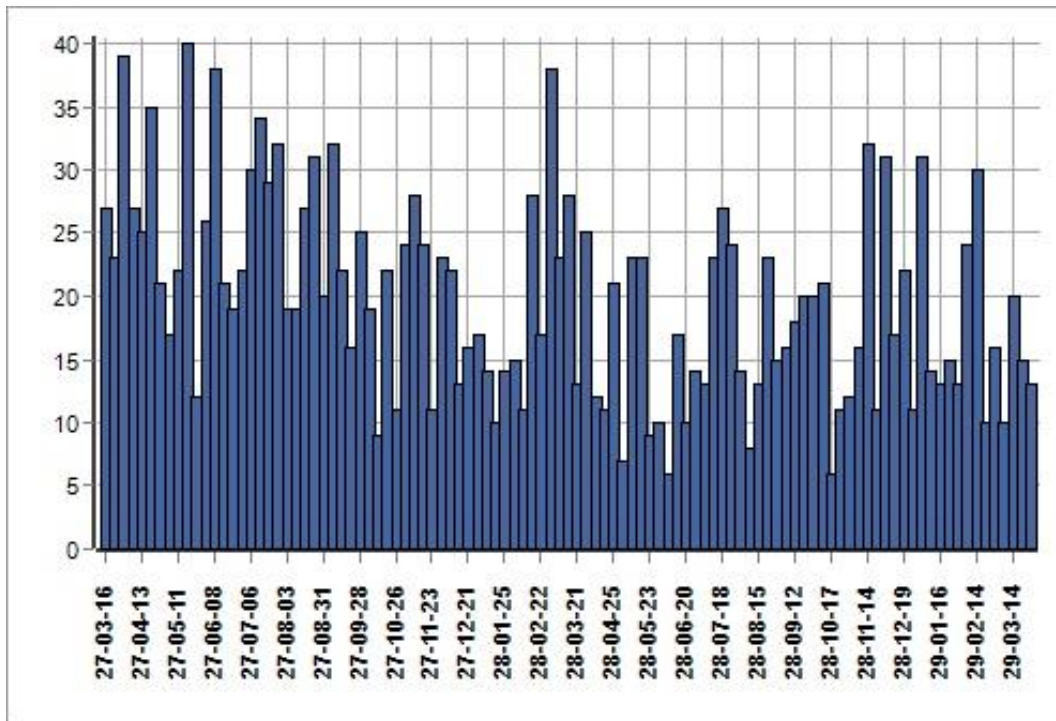
Topic 22.

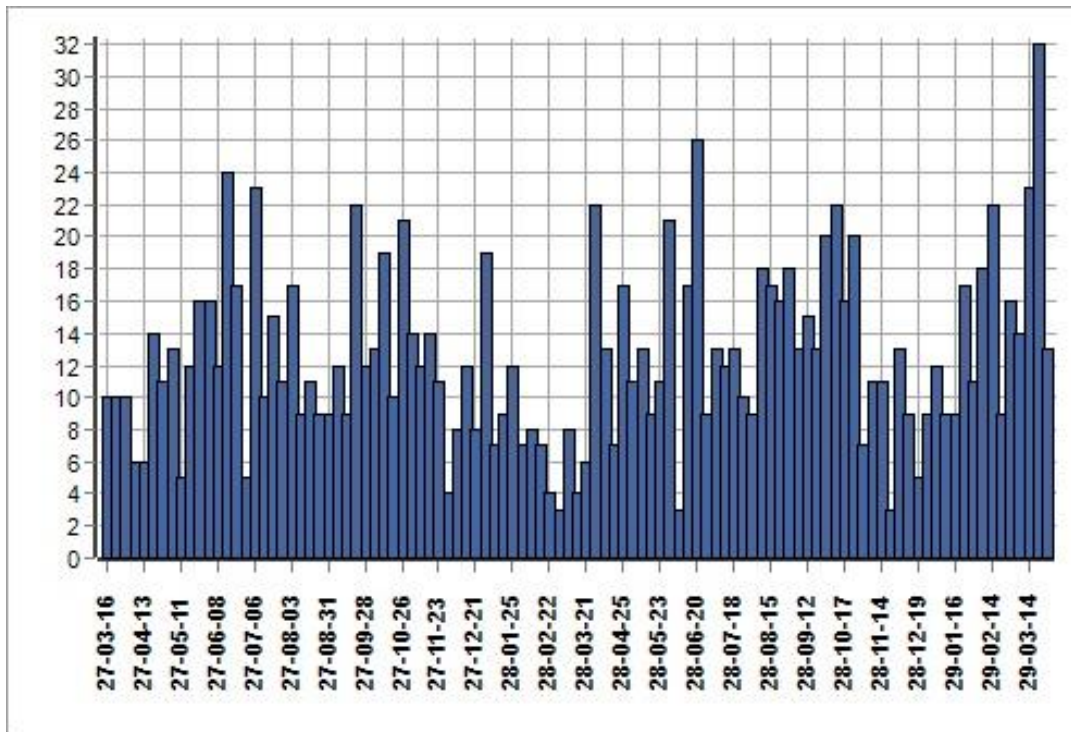


Topic 23.

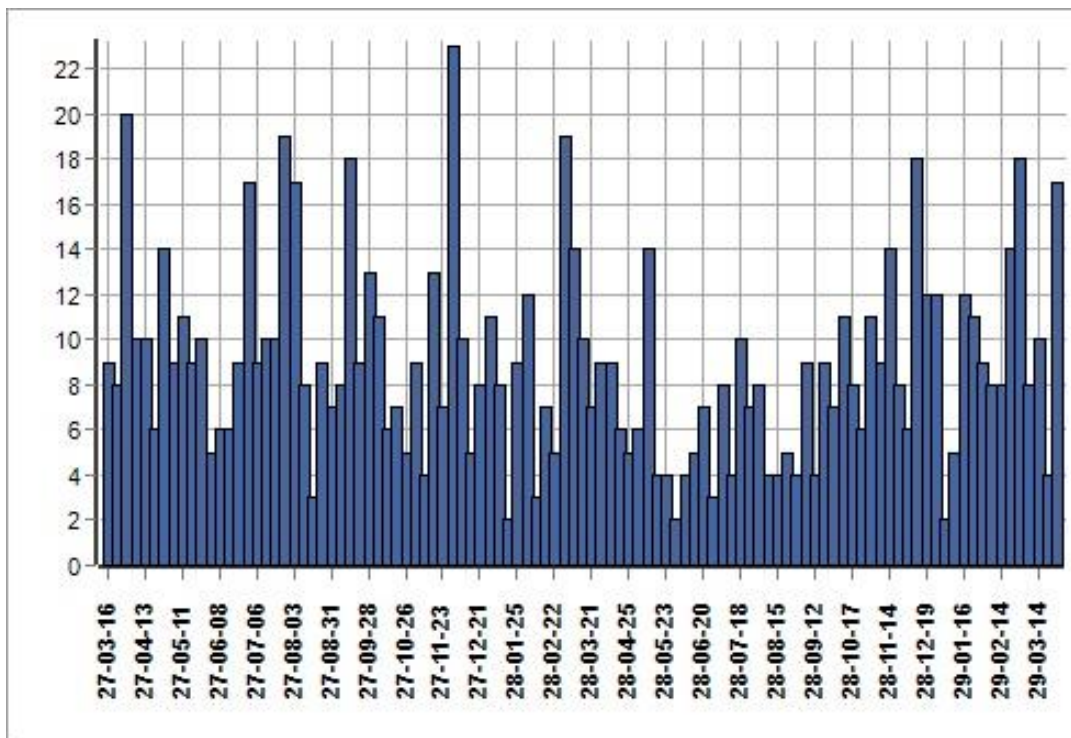


Topic 24.

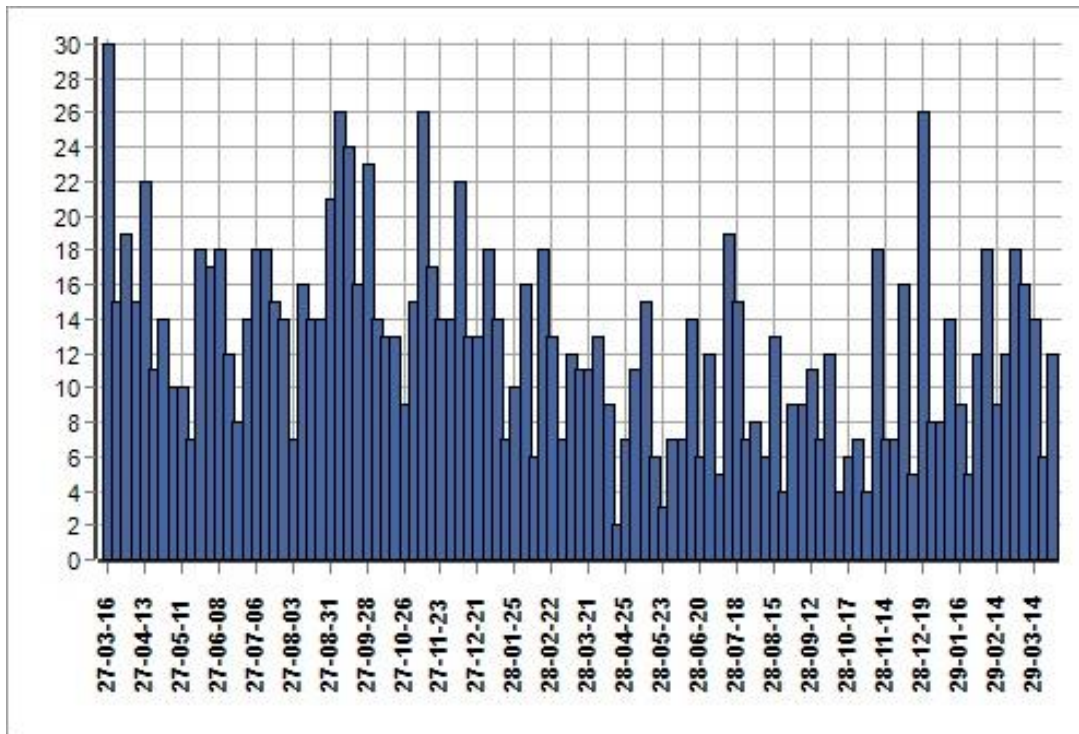




Topic 27.



Topic 29.



Topic 30.