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HIS 4936: Digital Humanities II

Professor Thomas

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Nuclear Testing, and Use in the News

The Question

When I first started considering what I wanted to do for this project, I found it rather challenging to decide exactly what I wanted to do it on. At first I was thinking about something involving ancient history (seeing as that is my field of interest), but the more I started thinking about it and considering the possibilities, the more I found myself leaning towards more contemporary topics. Finally I came to fall on the topic of how [nuclear arms](#) were discussed in the [news](#). This was something I had never really considered before, but after accidentally stumbling upon a database which offered the time, date, latitude, longitude, etc. of every nuclear weapon detonated since World War II, I knew that I had to investigate further into it.

Possible Impacts

In regard to the possible impact that this research could have, I see that it will come in multiple forms. First, while not the entire goal of

the project, I was hoping to use the latitude and longitudes to map all of the nuclear detonations on a map. Hopefully using a time-lapse of sorts in order to show the hot spots and help identify the areas which would most likely have articles written on the nuclear detonations. So the first impact would be that of mapping out and potentially seeing a trend within the nuclear bomb detonations themselves. I obviously assume that the majority will be concentrated within the U.S. considering we have the most nuclear bombs in the world, but perhaps the data would show otherwise. The second impact that is anticipated is that of having a better understand of how the news portrays nuclear bombs, and nuclear testing, or use. The expectation I hold is that the news will more than likely condemn the use of nuclear bombs, and testing while the testing is actually occurring. Simply said, I expect that while the testing are actually occurring, the news articles will be critical of this, and view it in a negatively light. What I am really unsure of is how the news will discuss nuclear detonations while there are not any occurring where they are writing from. I am curious to see if this lack of personal involvement will sway their opinions on nuclear testing, or if they will hold strong to my assumed distaste of nuclear testing.

General Approach

The approach that I am taking to handle this project covers more than just what my question was in the first place. Like I said previously, I would like to map out the nuclear detonations throughout history, and while I would be using this to find hotspots in order to better focus my search for articles; I would also like to have a map that is not

connected to the articles in anyway, but could serve as the basis for someone wanting to take this research in a different direction other than news portrayal. I believe that this is the heart, and soul of what makes digital humanities an interesting field to be a part of, other than just the material. What I am talking about more specifically is the sharing, and building of projects off of other projects. So in summation, the approach that I am taking towards this project is to generate a project that explains, and highlights the correlations between news portrayal of nuclear detonations when they are occurring around them, and when they are not. In addition to this, I would like this project to be separated in its parts that someone who was interested, but perhaps did not know where to start on a project like this could utilize part of the project and make it their own. I know that there are plenty of people in this field that are more well versed on the topic than I am so I have hopes that if they did not know of the power that digital humanities could give them to solve complex problems, or question they might have, they could be inspired to do so.

Approach to the Problem

My approach to this problem has its advantages, as well as its fair share of disadvantages. Looking first at the advantages, my approach facilitates the repurposing of parts, or the entirety of my project into other projects, or could be used to inspire, or answer questions that others may have had. This is accomplished through the separation of specific parts of my project (leaving the map with just the locations, and dates, and having another map which incorporates the news portrayal). I found this to really be the motivating factor behind while I

decided to do this project the way I did, and I believe that it will help foster further research in the field that others had not considered possible. In terms of disadvantages though, it is obvious to me that this project would be well suited to a traditional paper style of representation rather than solely a digital project. Had I been the one completing this project, I would have seen to it that a traditional paper utilizing these findings would have been written. I would recommend that anyone undertaking this; use these findings in the same way, as sort of a visual explanation of something that would be better understood in a paper. But it should also be observed that I lean more towards traditional styles of representing information given (I mean I have been hardwired to do it for the two years I have been in my undergraduate program now) so this could be the reason that I feel this way, and am not suggesting that the only way to meaningfully use this data is as such.

Scholarship

In regard to scholarship that relates to my proposed project, I was unable to find anything that directly used sources similar to mine, or apply digital methods to a project involving nuclear detonation, and the news portrayal. That still left me with traditional historiography as well as scholarship which pertained to digital methods that will be used in the project. While these example are not directly related to my project, they each cover a different aspect, or characteristic of my project. If you decide to further delve into digital humanities in the future, it is important to always consider what has been done that is

similar to your project, not just validate that your project has not been done before. Now let us take a look at what has been done in scholarly research that is similar to the project that I am proposing.

Traditional

The Portrayal of Nuclear Power in Media

The first bit of scholarship that related to my project was discussing nuclear power, and the way by which the media portrayed it. While this was very close to my topic, it was not exactly on (seeing as Joey Alfieri is discussing nuclear power versus detonation), but it also broadened the scope to media, which included the news, movies etc. He does briefly touch upon nuclear weapons in the third paragraph of the work, but the main focus remains on nuclear power. In regards to how my project communicates with this work, it can be observed that while we are discussing similar topics, we are approaching them in completely different ways. Beyond the obvious fact that this is a briefly written piece which does not employ any digital methods; there is clearly a specific angle by which he looks at the topic, and seems to have a particular bias. This can be observed when he writes, “News outlets love to blow stories out of proportion in order to gain an audience.” (Alfieri, Joey. “The Portrayal of Nuclear Power in Media.”) This differs from my project in which I have a general question (see The Question), and wish to find an answer to this. While I have proposed my own theories on the outcome (see Initial Impressions) I am not going about this project in an attempt to validate these theories, but to more so gather, and interpret the data, then see what the conclusion will be.

This obviously differs from his work in which there is a clear end goal he wishes to get to, and then to pass along to readers.

Looking now at the work itself, it can be observed that we do come together on particular topics. Those topics, such as news portrayal, and nuclear topics, but we differ on the specifics in regard to the “nuclear” part. His focus is on nuclear power, and attempts to curb a perceived, though not supported through examples, notion that the news always portrays nuclear power in a negative light. (Alfieri, Joey. “The Portrayal of Nuclear Power in Media.”) In addition to this, he asserts that, “Viewers lose interest when there is not some sort of disaster or traumatic event to be broadcasted...” (Alfieri, Joey. “The Portrayal of Nuclear Power in Media.”) The point of highlighting this specific quote is to highlight a key difference between our works, meaning that his work also seeks to understand the consumers’ impact on the portrayal of nuclear power in the news whereas I had been focusing solely on what the journalists themselves were writing about. I find that this could certainly be a good addition to the project itself, but the way by which I would seek out said information would be truly grueling. In addition to this, he also considers the way by which the portrayal of nuclear power in movies has an impact on the view, and understand of nuclear power. This is yet another point that I had not considered though I do not believe that it is feasible to apply such a general idea to the project currently.

Media’s Use of Propaganda to Persuade People’s Attitude, Beliefs, and Behaviors

The next piece of scholarly work focuses upon the use of propaganda to manipulate the way by which the public view particular topics. This again is another piece of scholarly work which while not directly related to my topic, provides yet another interesting take on the news portion of my project. Unlike the scholarly work discussed before, the focus of this piece is on the media's use of propaganda more generally, but does briefly come to talk about nuclear technology, but more so in the focus of how the media depicts countries with nuclear technology. In regard to the way by which it communicates with my project, it can be observed that both works seek to better understand the way by which the media communicates ideas about a given topic. This difference comes into play when discussing the topics, seeing as the work focuses more generally on the topic of propaganda, while using nuclear technology as an illustration whereas my project seeks to understand the specific topic of nuclear detonation. Like mentioned in the previous paragraph, the work does discuss nuclear topics, but again it is obviously not the focus. It seeks to dissect the way in which the media use propaganda to sway public opinion, and explains the ways by which they do it. It starts with explaining how to analyze propaganda, in which the authors break it down into ten stages; "...1) the ideology and purpose of the propaganda campaign, 2) the context in which the propaganda occurs, 3) identification of the propagandist, 4) the structure of the propaganda organization, 5) the target audience, 6) media utilization techniques, 7) special various techniques, 8) audience reaction to various techniques, 9) counterpropaganda, if present, and 10) effects and evaluation..." (Manzaria, Johnnie, and Jonathon Bruck. "Media's Use of Propaganda

to Persuade People's Attitude, Beliefs and Behaviors.") It then goes on to use case studies to illustrate their points as well as offers ways by which one can defend themselves against propaganda. (Manzaria, Johnnie, and Jonathon Bruck. "Media's Use of Propaganda to Persuade People's Attitude, Beliefs and Behaviors.") This offered a rather interesting perspective on the sources that I would be using. Clearly there must be an anticipation of bias in the news articles from the journalists, but I had never really taken into consideration that a countries journalists could, ultimately, be feeding into a narrative to indoctrinate readers. While it obviously makes sense, it is another way in which the project could be altered, or adapted to ask a separate set of questions. While I do not see how it would be feasible to utilize this with the current project I have in mind, it could be something that you as a reader expound upon rather than going down the path which I will lay out later on.

Application of Digital Methods

A Tale of Two Wars

This next scholarly work has absolutely nothing to do with the topic of my project, but does utilize similar tools, and methods which I will be outlining later. Because of this, it is therefore important to remember that while similar works do not need to immediately interact with your topic, they can interact with your work by the tools and techniques used. This particular example, while I could have found others, is a project created by my professor, David Thomas, and utilizes the Iraq and Afghan 'War Diaries' provided by WikiLeaks. (Thomas, David J. "A

Tale of Two Wars.”) I highly recommend taking the time to go to this project and look over it. While the topic itself is very interesting, what is more interesting is the versatile way by which he utilizes Tableau (a program which will be discussed more in detail later) to generate the heated zones for the separate incidents, but also how he uses it to generate visual representations of the data. This is certainly a path by which you could go down with this project, but the most important part to pay attention to is the map. In a lot of ways, it is similar to what will be generated as a result of this project. In fact, this style of mapping could even be utilized. You can also notice that he offers a rough outline as to how he went about generating the project itself. This is obviously very closely tied with the format that I will be using for this project, but is very common among digital humanities projects. A place where we differ in the use of techniques is that rather than having the visuals do a lot of the talking, my project is meant to be a supplement to a traditional paper (as discussed before). I do not think that the data involved in my project will be sufficient to generate visuals as abundantly, or lavishly as Professor Thomas’, but if you decide to merge more databases in with the project then this is very much so a viable option to communicate your results with the community.

Work Flow

This next part will be dealing with the steps as to how to get from beginning to end with the project. The purpose of this is not to write out every single detail because it would become much too dense. I will be giving an outline of how to get from point A to point B and will

provide the necessary links to find the different programs utilized. Further information about the tools talked about later can be found [here](#). The link will lead you to my professor's website which is full of useful information, examples, tutorials, and links for the various tools I will be mentioning.

Finding the Database(s)

I would like to start by saying that I find this to be the most rewarding, interesting, and important step in the entire process. Not just for this project, but for digital projects as a whole, it can be observed that this is the most integral portion of the entire project. Setting aside the fact that all your data will come from here; finding a database(s) is what really gets the whole process going for me. Rather than posing a question, and then searching for a database (which is a perfectly good way to go about starting this) I prefer to look for databases, find one that is really interesting to me, and then generate a question from there. Doing this has helped me to break out of my ancient history focus, and look at history more broadly. Regardless, for this project, we will be utilizing two databases. Both have been linked previously, but the nuclear detonation database can be found [here](#), and the database for the news articles can be found [here](#). The only unfortunate part about these two databases is that the one with the new articles have been made available to me through my university's library. My assumption is that you are a college student so, hopefully, it will be provided by your school as well. These will serve as the sources for all of our data if you follow the steps provided to create the project I had in mind, but this is also the time to search for another database if you

wish to pose another question. If you are looking to build off of my project, and need a specific database, the two best ways to go about finding them are by either using Google, or by seeing what databases are made available through the library at your university (speak with your local librarian if you need help finding the databases through your library). Once you have your data, we can now move on.

Using Web Scraper

In this step we will be collecting all of the data off of your databases. For this, we will be using a program known as Web Scraper which you can find [here](#). It is important to keep in mind the rate by which you scrape the data of the databases. Unfortunately, to the server where the database is hosted, web scraping can be interpreted as what is known as a “DDOS” attack (More information on that if you are interested [here](#)), and can result in you being banned from the website temporarily, or even permanently. It is important to set aside a computer specifically for web scraping due to the length of time it takes to scrape some databases (it once took me a full week to scrape the data for one of my past projects). Once you have collected the data though, it is time to move on to the next step.

Using Tableau to Generate the Map (and Other Visualizations)

After you have collected the data, it is now time to use Tableau. You can download Tableau [here](#) which has a free version, but if you are a

student, you can get Tableau for students free for a year. If you use the free version, everything is hosted to Tableau's website, and becomes public property so it is best not to use that. If you click on the link provided in the introduction, there are tutorials on how to utilize this program, but for this project you will be importing the data from the detonation database, and using the latitude and longitude provided to generate a map. There are plenty of other things you can do within Tableau, and the best way to get a feel for everything is to just experiment with moving the data around, and trying different charts.

Using OpenRefine, and the Topic Modeling Tool

If you intend to create the project exactly as I am laying it out then continue with this step, but if you were just seeking to generate the visualization(s) then you do not have to read any further. These following tools will be utilized to help draw conclusions about the words commonly used with the articles that you have scrapped. You can find OpenRefine [here](#), and you can find the Topic Modeling Tool as well as instructions on how to use it [here](#). These tools will assist when it comes to writing the paper that will accompany the visualization.

Writing the Paper

This is the final step if you are following my project all the way through as I had planned it out. I feel that this project cannot be thoroughly dissected without writing a traditional paper to accompany, and

explain it. Within this paper, you should be utilizing the visualizations that you created through Tableau in a meaningful, and not wasteful way. What I mean by this is do not just generate a bunch of meaningless visualizations that do not warrant further explanation, and exploration. There should be a rather large amount of data collected from the news database so it would be best to focus on a particular date range, or country in your writing. While this would obviously entail the neglect of the rest of the data you have collected, if the project is too big it usually loses its significance, and the trends I wanted to analyze could be observed in a smaller dataset. Though this is up to what you want to do, personally I would shrink the project a bit so that I could spend more time on articles from a specific time periods and generate more meaningful conversation on the topic.

Initial Impressions

It is this portion of the project where I am supposed to share results that I have found, and discuss why it is that this project should continue to be pursued, and fleshed out. I believe that while this is important, that the purpose of all this is to inspire those who will complete this project, or perhaps take it to a place I did not think of. While I have collected the data myself, and have my own hypothesis based off the data I chose to incorporate, the result can vary based off what you chose to utilize versus what I did. So rather, I will be sharing what could come from the further development of this project, and what could come as a result of its completion.

Further Development of the Project

With the hope that this project will not just die in the words of this write up, a number of outcomes are feasible. The most likely, to me at least, is that the data will show that the depiction of nuclear testing, or use will continue to remain unfavorable within the realm of the news opinions. My basis for this theory comes from a variety of different angles, but the contributing one is that anything with the word “nuclear” in front of it tends to be unfavourable due to the connotation of the word itself. Like can be observed in the works that I utilized in the scholarship portion of this write up, the word has a negative connotation, and it is hard to deny that. While I hold that this is the most likely result you will come to after finishing this project, there is also another option that could be the conclusion. This other option is that pieces written on other country’s nuclear detonations, or use will be viewed unfavorably, but the use, or detonations within the country of origin for the article will receive little to no publicity. This can be theorized based off of the lack of discussion in popular media about nuclear detonations that occur within the U.S. but the hypersensitivity to those detonations performed in other countries, especially those who we are at odds with (ex. Russia, North Korea etc.). I also believe that this will be influenced by the type period in which you choose to focus on (if you choose to go down that path) so a single conclusion is hard to generate under those conditions. This is again something to be left to the individual, and what they choose to focus on specifically.

What could come as a Result of this

Project

In regard to what could come as a result of this projects completion, it is apparent to me that the map of the detonations alone could serve as the starting point for a variety of different projects, or to better explain already known facts about them. Focusing more so on the idea of other project starting as a result of this, one project that came to me during this is whether, or not the world is safer now than it was at the height of the nuclear race. While it is common knowledge that we have been slowly dismantling nuclear weapons, and lessening the amount of detonations performed as the years have gone by, have the nuclear tests spread further, or has the spread decreased as major nuclear powers have lessened their arsenals? Another potential project, utilizing the idea of propaganda from the scholarship section, how many of the news articles collected on nuclear testing, or use fit into the category of propaganda? Utilizing some of the previous work done in that field, one could add a new perspective to a topic which seems to be rather widespread in common discussion. Regardless of what is done with the project specifically, this project will definitely leave the door open for others to use the data, and visualization to craft their own interpretations of that data, and utilize it for other ventures. Like I said previously, my hope is that this project just does not die in the words of this write up, but is completed, and hopefully inspires others to generate their own projects. Whether, or not these projects are in this field specifically is of no importance, but the spread of digital methods to study, and interpret history is.

Works Cited

Alfieri, Joey. "The Portrayal of Nuclear Power in Media." The Portrayal of Nuclear Power in Media. March 15, 2016. Accessed December 06, 2016. <http://large.stanford.edu/courses/2016/ph241/alfieri2/>.

Manzaria, Johnnie, and Jonathon Bruck. "Media's Use of Propaganda to Persuade People's Attitude, Beliefs and Behaviors." Media's Use of Propaganda to Persuade People's Attitude, Beliefs and Behaviors. Accessed December 06, 2016. https://web.stanford.edu/class/e297c/war_peace/media/hpropaganda.html

Thomas, David J. "A Tale of Two Wars." ThePortus. 2016. Accessed December 06, 2016. <http://www.theportus.com/demonstration/tale-of-two-wars/>.

Hyperlinks Used

Databases

<http://nuclearweaponarchive.org/>

<http://www.newsbank.com/libraries/schools/solutions/us-international/access-world-news>

Digital Tools

<http://webscraper.io/>

<http://www.tableau.com/>

<http://openrefine.org/>

<https://github.com/arunbg/Topic-Modeling-Tool>

More Information

<http://www.theportus.com/dh-resources/#ffs-tabbed-11>

<http://www.digitalattackmap.com/understanding-ddos/>
