

*(Disclaimer: The data visualization chosen for this assignment contains some characterizations of the religion of Islam which can be considered derogatory and prejudice to others. As someone who has formerly practiced the Muslim faith, I felt that justice could be done through honestly critiquing the material from an academic perspective. After asking the professor whether it was permissible to use this data visualization, he said that it was fine.)*

## **Overview**

Prior to taking this course I've heard of some basic data visualization principles. For instance, I had learned that it's possible to misrepresent data using some dishonest techniques which can convey a message that's contrary to what the data may truly be indicative of. An example of this would be to use bar plots where the bars have heights that don't reflect their true values, giving the notion that a certain perspective exists when it doesn't. It wasn't until this project where students were tasked with searching for some faulty data visualizations, had I come across an example that was shockingly dishonest. The data visualization that I speak of is one of a series of PowerPoint slides from someone who worked for the Federal Bureau of Investigation (FBI). The person who presented them is named William Gawthrop, a man who is said to have worked for the government doing military and defense work for 48 years. He has also received a master's degree from the Joint Military Intelligence College and has stated that he's studying for a doctorate in criminal justice.

Ever since the release of the article detailing these presentations by the magazine "Wired", the FBI has since tried to distance themselves from Gawthrop. On the webpage that Wired had released the information regarding Gawthrop, there are four different PowerPoints presentations that contain highly prejudice characterizations of Islam. The point of his argument seems to be that groups such as Al-Qaeda are analogous to a single tooth of a shark. Since sharks can constantly grow back their teeth, even if the U.S. government removes one tooth, another will grow back. Therefore, in Gawthrop's lectures, he goes on to demonize Islam and try to convince others that it's somehow inherently dangerous (the shark in the analogy). Besides how racist and prejudice the presentations by Gawthrop seem, just as shocking if not more is the positive feedback that he has received from his audience in a New York City gathering of law enforcement.

## **Data Within the PowerPoints**

Within the presentations the PowerPoint slides often cite quotes and other pieces of information from the Quran. Other data that is included are tables of recent terrorist incidents within the U.S. and abroad, with details such as date, number of people killed, and motive. The details of the tables with terrorist incidents is not questionable since they are seemingly factual and objective. Also, the inclusion of excerpts from the Quran and explanations of some of its concepts is also not an issue. The problem lies in the intent of the lectures, which is to

characterize Islam as an evil ideology that needs to be put inside of a box. Such an act demeans and humiliates all those that are associated with it. What Gawthrop does, is basically he approaches the faith of Islam as an outsider and completely takes an ancient religious text out of context and puts it within the conversation of it being a sort of “terrorist manual” for modern day jihadists. Others who work in counter terrorism have stated that what Gawthrop is doing is backwards and counterproductive to the work that “real” counter terrorists are doing. Gawthrop himself has made the notion that it’s useless to approach Muslim Americans for help since they’re already brainwashed by this religion. Aki Peritz, who formerly worked in counter terrorism has said this is analogous to believing that these Muslim Americans have already infiltrated all levels of government because they’re apart of this “cabal,” calling it “McCarthyism on steroids.”

At other times, the data seems to be drawn largely from his own imagination and his shallow interpretation of the meaning of the Quran (spelled Koran in the slides). In one of the PowerPoint presentations called, “Militancy Considerations,” I will proceed to try and analyze the underlying messages within the visualizations. Previously, there had been videos of the presentations on YouTube, but they’ve since been taken down by the owners. The series of slides are portions of a bigger picture that Gawthrop is trying to convey, where he implies that the religious text of Islam is comparatively more violent than the texts of Christianity and Judaism. There’s little evidence of any data other than some rash generalizations that Gawthrop is making regarding a combined demographic that consists of billions of people.

## First Visualization

In the first of data visualizations within the slideshow presentation (see Figure 1) is a chart which apparently shows the Moderate Community in comparison to the “Radical” Islamic Community. The type of data visualization it represents seems akin to a sort of pie chart, where there are two major categories, the Moderate Community and the “Radical” Islamic Community. Within these two major categories are three subcategories, Christians, Jews, and Muslims. Each of these subcategories are represented by their religious symbols: a cross for Christians, a Star of David for Jews and a crescent for Muslims. The visualization seems to portray the Moderate Community as being the larger of the two, consisting of 4 crosses, 5 Stars of Davids, and 4 crescents. The category of “Radical” Islamic Community contains 7 crescents, attempting to indicate that most Muslims belong to this category. Clearly, these are visualizations fabricated with no actual data to support the claims. The use of religious symbols to represent the frequency of community members is a poor idea. This is a technique often used which makes it difficult to see clearly the distribution of a dataset. However, due to his lack of

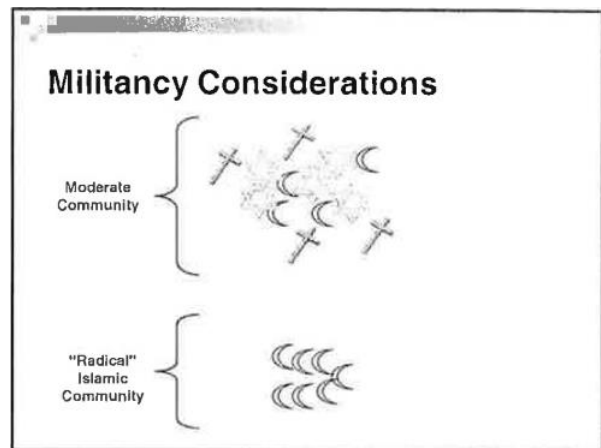


Figure 1 First data visualization by Gawthrop attempting to portray Muslims as a largely radical community in comparison to moderate Christians and Jews.

actual data referenced, this doesn't seem to be an issue since there's no data to misrepresent to begin with. Gawthrop in this case seems to just want to perpetuate two main points: the first being that only Islam contains a radical community, and the second being that most Muslims deserve some label of "radical."

To be more objective, it'd make sense for Gawthrop to define clearly what he means by moderate in comparison to radical. It seems just as possible for there to be groups of "Radical" Christians or Jews. They simply aren't being represented in the graphic. Rather than using religious symbols, it'd be effective to use something like a bar plot or pie chart that can represent clearly the distribution. If Gawthrop truly had the data to support his claims, he should be able to define how a group can be considered moderate and how a group could be considered "Radical." It's not certain if what he means by "Radical" can be equated with fundamental or some other concept within the demographics of religion. Also, due to differences in the size of populations, it'd be practical to make three pie charts for each religion and then to separate them percentage wise into "radical" versus moderate.

The visualization however does a good job of trying to show that there are two groups of communities within the three religions. Gawthrop apparently wants to bring up the issue of radical individuals and how they're an important part of the religious community to pay attention to. By showing that most religious followers are moderate and that a smaller subset is radical, it helps viewers to understand the dynamic that exists between peaceful and radical members of the religious community. Also, if such a statistic could be calculated through some method of sampling, it would be practical in helping counter terrorism teams to better strategize and understand what others outside their own communities are like. It doesn't help to generalize about others based on an ignorance of who they are.

## Second Visualization

The second data visualization that will be analyzed (see Figure 2) is another slide from the PowerPoint presentation. It is a continuation of the first slide, where the three religions are pictured together on a timeseries graph. On the y-axis is a metric where close to the origin is the label "Violent" and at the upper part of the y-axis is the label "Non-Violent." On the x-axis is a timeseries beginning from 1400 B.C. at the origin and extending to 2010 (A.D.) at the far end of the x-axis. The dates labeled on the x-axis are 1400 BC, 3 BC, 610 AD, and 622 AD. The date of 1400 BC is associated with the Torah, the religious text of Judaism. The date of 3 BC is associated with the Bible, the religious text Christianity. The date of 610 AD is associated with the Koran, the religious text of Islam. The date of 622 AD is associated with the

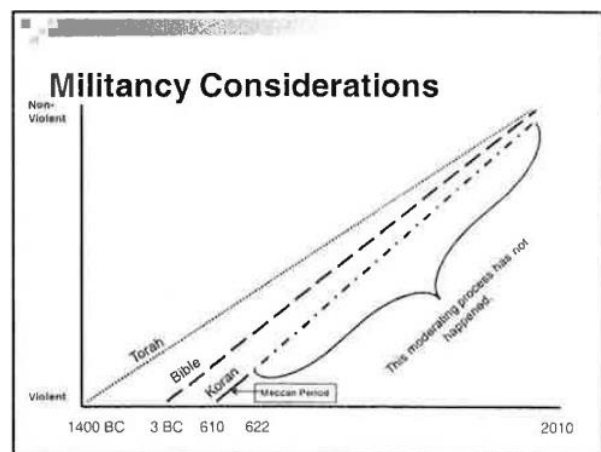


Figure 2 A timeseries plot showing the level of violence on the y-axis and the dates from 1400 BC to 2010 AD on the x-axis. The previously mentioned religions are also represented.

Koran also, but in later slides it will be clear that the Koran is broken into two periods, the Meccan Period (610 AD) and the Medina Period (622 AD).

In Figure 2, all three religious texts have a straight line from the x-axis going up to the far right. The idea seems to be that all religious texts began as scriptures containing heavy violence, but over time they evolved to become non-violent. However, there's a large note for the line representing the Koran, stating that, "This moderating process has not happened." In other words, it's trying to convey that Jews and Christians have been able to become peaceful, while Muslims never learned to change this way past 622 AD. Like the previous slide, there's no data being cited to backup this claim.

Anyone with some basic knowledge of history understands that although civilization has become in a way more peaceful and less barbaric in comparison to ancient times, such a transition can't be meaningfully represented with a straight line. Looking to more recent dates as an example, the Christian community has engaged in World War 1 and 2 which lead to the deaths of millions of people. Prior to this, were the periods of colonialization where again, members of the Christian community went on to pillage numerous other lands that were considered home to "savages." Even in modern times, during the post-9/11 era, thousands of innocent civilians in the middle east have died in countries like Iraq and Afghanistan. The invasion of Iraq was largely due to an imagined threat of "weapons of mass destruction" which were never found. So, in the context of such a bloodied history, it's difficult to in good conscience agree with this depiction of Islam as 'violent' in comparison to the other two religions. The writer of the article from Wired magazine also mentions that the graph fails to represent the period of violence during which the Christian community went through an era of Crusades, an incredibly bloody period in their time.

Even the Jewish religion with a comparatively smaller population has gone through times of violence. Although the history of Israel and Palestine is complicated, there have been periods where Israel has committed acts which even the United Nations has considered to be illegal by international standards. There have been thousands of deaths in the region dating back to as recently as the 1960's. So, like the way that the Bible is misrepresented with a straight line, it seems illogical to represent the history of violence within the Jewish community with a straight line.

The visualization does however make the noteworthy notion of trying to understand terrorists which are considered as belonging to "Radical" Islam. It's true that there are such people in the world and that they do seem to use the Quran as one of their guides for their chosen path in life. However, trying to characterize the entire spiritual text of the religion as being the reason for their levels of violence is a dishonest act. The graph seems to indicate that the other religions have reached some state of peace, when in fact violence still exists in other forms of society and doesn't have to be only in the form of war or bloodshed. An example would be action movies in Hollywood where western male heroes are often depicted as superhuman heroes that destroy their enemies with big muscles and weapons. Comparatively, the Arab world doesn't seem to have an action movie industry nearly the size of the one in the west.

*(Note: This visualization will be continued in further slides and so comments on the overall idea will be elaborated on later, including how it can be improved.)*

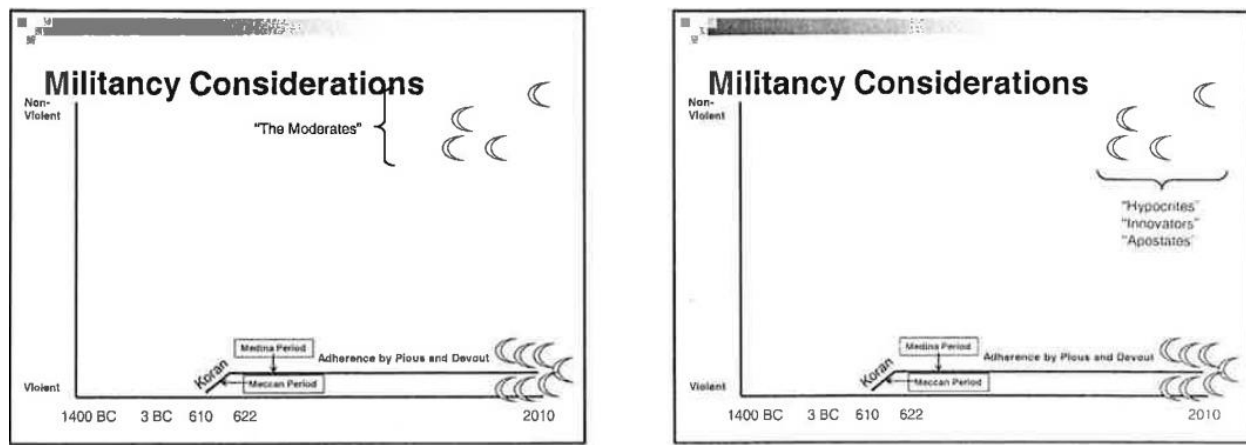


Figure 3 In the above slides, the lines representing the Torah and Bible are removed, showing only the Koran and the path that it 'actually' took over the past thousand or so years. Also, the distribution of Muslims is shown to be belonging largely to the 'violent' section and only the minority are considered peaceful.

### Third and Fourth Visualization

In the next two slides (see Figure 3), the same timeseries graph in Figure 2 is shown again, except the lines representing the Torah and the Bible are removed. Here it's emphasized that the Koran is broken into two periods, the Meccan Period (starting in 610 AD), and the Medina Period (starting in 622 AD). The Koran begins an upwards slope, like how the Torah and Bible began, exception at 622 AD it suddenly makes a sharp turn parallel to the x-axis. This indicates that the Koran only becomes slightly less violent and never quite becomes peaceful. The data backing up this claim seems to come from his interpretation of the Koran, which he explores in later PowerPoint presentations (not included in this analysis). Gawthrop claims that most Muslims, represented by 7 crescents, whom are considered "pious" and "devout" follow this horizontal line. However, the minority of Muslims, represented by 4 crescents, are supposedly able to reach a state of non-violence in modern times. In the left slide in Figure 3, the minority are labeled "The Moderates," while on the right slide, they're labeled "Hypocrites, Innovators, Apostates." The labels on the right slide seem to indicate that Muslims whom are peaceful are considered contradictory in their faith and belong to a small subset of Islam. Once again, there's no mention of any data sources and with a population as large as the religion of Islam, it's unimaginable to consider the large majority to be at a level of backwardness reminiscent of the Medina Period in 622 AD. In the following visualization the distinction between the two groups is further elaborated upon.

*(Note: Again, the visualization will be extended in later slides and so a fuller critique will be given afterwards.)*

## Fifth Visualization

The following slide in the PowerPoint presentation (see Figure 4) further discusses the relationship between the majority and minority of adherents within Islam. It shows that there's a civil war within Islam, with the minority on one side and the majority on the other. It seems to make the notion that the majority whom are considered pious and devout within their faith have obtained some moral high ground. The idea is possibly that those whom are closely following the Koran are both pious and violent, since they follow a religious text that has not become more peaceful over time. The minority, however, whom don't closely follow the Koran, are non-violent but are also either hypocrites, innovators, or apostates.

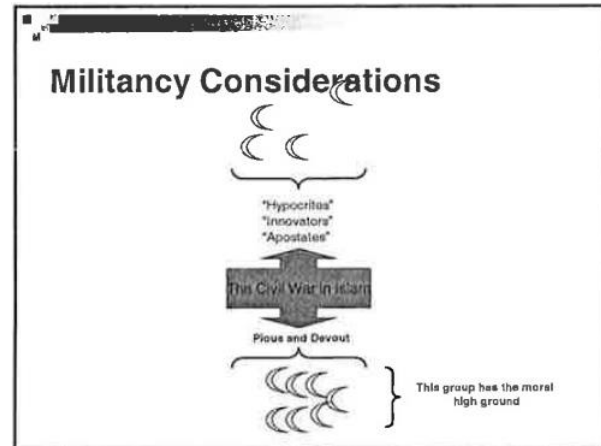


Figure 4 The following slide which further elaborates on the difference between the majority and minority within Islam.

Again, this is like a pie chart or bar plot which shows the distribution of Muslims into either the peaceful minority or supposedly violent majority. Using only 4 crescents to indicate one group and 7 crescents to indicate another isn't meaningful. It seems to imply that there's a 4:7 ratio of peaceful to violent Muslims. However, with a population over 1.8 billion, it'd be helpful to include some numbers so that the representation is more meaningful. Also, it's not likely that any properly done survey can be conducted where surveyors go to Muslims of different countries and ask samples of the Muslim population whether they belong to a 'peaceful' group or 'violent' group.

In this visualization Gawthrop seems to be making some sort of judgement about those within the faith of Islam, a difficult argument to make when he himself doesn't seem to be a member of that religion. It'd be more productive if he could seek out religious scholars and Imams (a type of Muslim leader) from different Muslim communities and consult them on their opinion within this matter. The issue that he seems to be bringing up doesn't seem trivial at all, and if there's any truth to the claim then it'd be worth discussing with those whom are a member of the Muslim community. Furthermore, with the awareness being given to the Muslim society, there'd be the hope that such an aspect of their community could possibly be helped so that they could potentially move towards a more positive direction.

*(Note: Again, the visualization will be extended in later slides and so a fuller critique will be given afterwards.)*



## Final Visualization

The final slide in the PowerPoint presentation can be seen below (see Figure 5). It combines all the previous slides into a single timeseries graph with all three religious texts represented by lines indicating their level of violence over time. The moderate community, which consists of members of all three faiths are at the top right, indicating that in 2010 they've achieved a level of non-violence. However, the Christians and Jews have been able to do so by remaining "pious" and "devout." The "pious" and "devout" Muslims, however, have all supposedly followed a path of violence dating back to 622 AD.

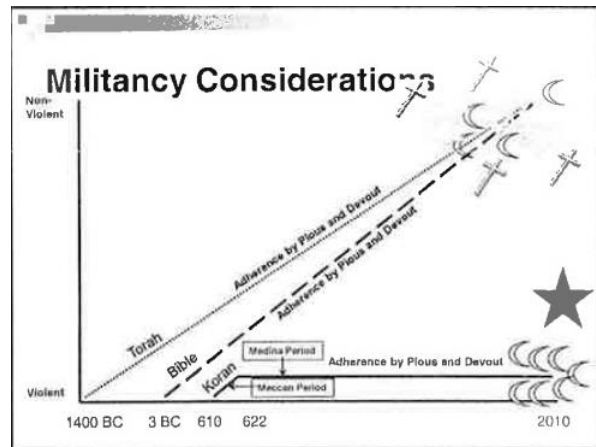


Figure 5 The 'final' slide which combines all previous ideas mentioned into a 'complete' picture that represents the Jewish and Christian community as peaceful and the Muslim community as largely violent.

From this final slide of the PowerPoint presentation on Militancy Considerations, it seems to be such that Gawthrop would like the audience to understand that compared to the level of peace attained by adherents of the Torah and the Bible, followers of the Koran are much more violent. Also, the reason that they're violent, he seems to want to connect with their dedication to this spiritual text which he seeks to demonize. This is something that's been noted in the conversation post-9/11 regarding "Radical" members of Islam. In other PowerPoint presentations not shown here, Gawthrop proceeds with trying to analyze excerpts from the Quran and make certain judgements regarding the meaning and those that worship the text. Evidently, this is a delicate discussion and it's unhelpful for someone such as Gawthrop with his level of understanding to honestly critique the content. As mentioned before, perhaps it'd be best if Gawthrop himself would seek out religious leaders and generate some discussion regarding this point that he's making.

The idea of a "civil war" within Islam has been discussed from another more reliable source. In 2018, the king of Jordan, H.M. King Abdullah II spoke with CNN's Fareed Zakaria at the World Economic Forum in Davos. He states the following in the conversation, "...I think, maybe there is a lack of understanding of Islam. Islam is built on moral virtues that you see in Christianity and Judaism and other religions." Furthermore, he states that, "...and I've said it before, when we all greet each other as Arabs and Muslims, we say assalamu alaikum, peace be unto you. That is probably the most said sentence that anybody says from the minute he gets up in the morning till he goes to sleep in the night. And I think that is the basis of Islam." In this context, King Abdullah is expressing to the world that Islam is a faith like any other, a religion that arose out of its own time and is now followed by many around the world.

Regarding King Abdullah's views on the fringe terror groups within Islam, he's stated, "We have challenges because there are fringe groups that have created problems. As I've said before, we have a fight inside of Islam. This is a civil war between all of us and those that not only consider us heretics, but consider Christians, Jews, and other religions all heretics and

should be put to the sword.” So, in this sentence, King Abdullah is saying that the civil war is not just within Islam, but within the whole world. Those that are “Radical” members of Islam are challenging not just Muslims but pose a threat to all who believe in peace and a positive future. Here, King Abdullah is letting the world know that the truth within Islam is being twisted by those with ulterior motives and that in order to face it the world must understand clearly where the difficulty is.

In another statement, going along a similar notion of the other counter terrorist operators (excluding Gawthrop) mentioned in the “Wired” magazine article, “...is to have the Muslim population feeling victimized and isolated. And that creates the breeding ground of contempt because everybody hates us. I am more worried that the narrative creates more internal challenges of security if Muslims—at the end of the day, we all want a better life. We want a better future for our children and their children. For them to feel isolated, that’s the danger. And the rhetoric that moves in that direction is not a good story for anybody.” Here, King Abdullah is showing that the narrative being pushed by Gawthrop endangers all Muslims and is leading towards increased levels of prejudice within society. He seeks then to bring light to the conversation by adding that, Muslims are like everybody else, they seek a better future for themselves and their families. This brings about a level of understanding towards better grasping who the people within Islam are so that a sense of fear which originates from fringe groups doesn’t become a characterization that defines all Muslims.

To be honest, it’d be more productive to not create such a visualization that demonizes a religious text while venerating others. Therefore, to improve the visualization it’d be more positive to change the ideas trying to be conveyed. An idea is to show instead that times of peace and violence exist in all religions. Therefore, understanding the current threat to the world posed by terrorists is something that needs to be fought by all members of society. The data visualization can remain a time series plot, however the lines from the three religions can trace the number of people that have died or been killed through battles over time. Such a visualization could show that clearly, all people have been through times of peace and warfare so we’re no difference in that respect. Furthermore, many of these battles can possibly be attributed towards some goal of having some self-ownership of their own respective destinies. The visualization could be indicative of a common dream for all peoples of the world to create for themselves a positive and honest future for their local communities. The effect of such a data visualization would in turn go from trying to demonize one group and instead show that all three groups have more in common than they do have differentiating one from another.

In the conversation between King Abdullah of Jordan and Fareed Zakaria from CNN is that those who belong to the fringe groups are people that live in conditions that are backwards and lacking in dignity. In this case, by perpetuating hate towards those that suffer under difficult conditions is merely exacerbating a cycle of pain for people who can’t escape it. If they feel that the world is against them, then it’d only encourage more of those people to join fringe groups. It could be more positive then to understand that they’re merely a group of people growing up in conditions of poverty and need the help of the world to bring them out of it. This would be preferential over depicting their belief as a shark within some crude analogy.



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