



# A Snapshot of Feminist Discourse on Reddit

A textual analysis of word frequencies and word embeddings on r/Feminism  
surrounding the themes: abortion, sharia law and violence



Github: <https://github.com/Jeli-sh/MA-Digital-Humanities-Group-Project-Tools-and-Methods>

## Group project Report

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# Introduction

In today's society many individuals are striving for equality in order to have equal opportunities regardless of their identity. This includes factors such as gender, ethnicity, nationality, social class and beliefs (Buckingham, 2008, p. 4). As a group of female students from diverse backgrounds we would like to conduct a research on gender inequality by focusing on feminism. The reasoning is because feminism remains an unresolved and continuous political issue. Moreover, as society develops, the definition of 'feminism' changes. New discourses around topics which are concerned with feminism emerge as people all over the world can participate in conversations on several online platforms. Therefore, the objective of this report is to explore the following research question: *What are the most frequent words and phrases in subreddits dedicated to feminist topics such as Abortion, Sharia law and violence against women? And how are these words embedded?* The purpose of this research question is to investigate and illustrate types of narratives within subreddits by observing words and phrases that may be associated with the topics mentioned. By looking into the word use of users on an online platform such as Reddit, we hope to create a snapshot of the ways 'ordinary people' talk about feminist contemporary issues. Therefore, our research focuses on feminist topics that were salient in 2022 due to major events that occurred as well as on-going issues.

The first subject revolves around *Abortion* as it concerns the health and safety of women. Although many countries legalize abortion to a certain extent, some continue to prohibit abortion (Barry, 2022). The reason that this topic was heavily discussed again was because in June 2022 the United States supreme court overturned the 1973 *Roe v. Wade* case that ruled the right to privacy and protect abortion as a fundamental right (Center for Reproductive Rights, 2022). The overturn resulted in 26 states and 3 territories in the U.S. being at risk of severely limited, prohibited or illegal to undergo abortion (Center for Reproductive Rights, 2022). The fall of *Roe* caused many people to take their views to the streets and online in the hope of spreading awareness and regaining abortion rights.

The second topic that will be investigated is the *Sharia law*, which is described as Islam's legal system (Rahman, 2020). *Sharia law* derived from the *Quran* and the *Sunnah* (Rahman, 2020). To put simply, the *Quran* is the holy book which consists of Allah's direct words that

were revealed and recorded through Prophet Muhammad (Rahman, 2020). Furthermore, the Sunnah embodies writings including habitual practices that were executed by Prophet Muhammad and Ahl Bayt. These documents could be found in *Hadith*, which is the secondary literature after the Quran (Rahman, 2020; Ahmed, 2015). Therefore, the Sunnah is simply a custom of traditions, social and legal practices that the Islam Community follows. Although views on Sharia law from outsiders have been circulating for years, in 2022 more views from people who practice Islam also surfaced. This was because in mid-september 2022, the Islamic religious police arrested 22 year old Jina Mahsa Amini in Iran for the failure of mandatory veiling and it resulted in her suspicious death (European Parliament, 2022). This sparked an outrage across the world resulting in many protests as well as state violence against protestors in Islamic countries.

Lastly, we would like to focus on violence against women which has always been in our society. The urgency of this topic could be seen through organizations such as the MeToo movement, the news we watched everyday or even from experiences of someone close. This violence includes physical, sexual and psychological. According to World Health Organization, nearly 1 in 3 women have been exposed to physical and/or sexual violence by an intimate partner or non-partner (World Health Organization, 2021). Moreover, murders of women committed by intimate partners falls to 38% worldwide (World Health Organization, 2021). In addition, universally 6% of women reported being sexually assaulted by individuals other than their partner (World Health Organization, 2021). Keeping in mind, there are many more cases unreported due to fear of judgements, more harm or embarrassment.

These contemporary issues regarding women are not only discussed in news media or in real life. Through our increasingly digitized society, netizens can create and interact with each other in online communities to express their opinions, share stories or even perform various forms of activism. Especially on platforms like Reddit, the world's largest, user-created social news community. On Reddit, users are essentially unrestricted and can anonymously talk about anything they want on a section called a subreddit. What's more, according to Reddit's Recap of 2021, Reddit had over 52 million users every day. People constantly express their views on social platforms, which means that a great number of words can be analyzed (Staff, 2021). Just like the European coffeehouses of the 17th and 18th centuries, Reddit is a public social place where people can meet for conversations and construct their own discourses about ongoing

issues in the world. For researchers of various fields, this platform could provide data which gives insight into the many ways netizens create their own discourses, in their own online community, about issues of their interest.

The subreddit r/Feminism, is an example of such an online community. With the subtitle: “The personal is the political” we can already get an idea about the ways the users within this community express themselves about political events. The various tools of Voyant give us the possibility to look into the word frequencies and word embeddings around our chosen themes. This allows us to gain insight into the ways the users of the subreddit approach these political issues in an online social environment. By looking at patterns, connections and trends of the used words we hope to see how contemporary issues play a role into the way the users talk about feminism. In order to do this, we created our own dataset by scraping data from the subreddit. For this we used the Python Reddit API Wrapper (PRAW). Our general dataset includes the ‘title of the thread,’ ‘a unique ID,’ ‘the text within the post’ and the ‘date of posting.’ From this dataset we created our own corpus in which we narrowed down the data. To make our textual analysis in Voyant easier, our final corpus only contains the ‘title of the thread,’ ‘the body of the post’ and the ‘date of posting.’

In order to provide (preliminary) conclusions to our research question, we will start our textual analysis by looking at the word frequencies in our entire corpus. Thereafter, we will look at the collocations of certain keywords, which we selected by looking at the word frequency. After this, we explored certain trends of the frequency of our keywords by comparing the title of the threads and the actual body of the posts. To delve deeper, we looked at the actual contexts of the keywords to gain more information about the ways these words were actually embedded in the actual posts. Finally we compared our findings from Voyant, by placing our keywords into the TensorFlow Embedding Projector. This allowed us to gain insight into the ways our words gained meaning within the subreddit by comparing their embedding in the ‘general world.’

We are aware that this research is by no means an actual representation of the discourses within this online community about our chosen themes. In order to critically assess our findings, we also elaborated on the limitations of using Voyant. Still, we hope to provide a clear snapshot of different types of feminist discourses and the words used to express them, within an online community on which further research can build on.

# Voyant: A Snapshot of r/Feminism

In order to get a glimpse of the words used for the discussions on r/Feminism around heavily debated societal issues we are going to use Voyant. However, before we are going to use Voyant to take a closer look at word frequencies and word embeddings connected to the themes: abortions, Sharia law and violence against women, we have to prepare our corpus. By uploading our r/Feminist dataset, every bit of information in the dataset is visible in Voyant. By default, Voyant considers the corpus that you upload as one document. However, you can give Voyant the instruction to treat the file as a table. For this, we decided to separate the columns 'title' and 'body' as it could be interesting to see some differences between the title of the threads and the actual text in the posts. We were planning to include the dates as well as we planned on looking at certain trends of frequent words around our themes. Yet, Voyant treats this column as part of the text itself. For example, it treats the numbers of the dates in the word frequencies as well. For this reason, we chose to only look at the actual text in the title and body. Still, by looking at the frequencies of certain keywords and the way these keywords are contextualized and embedded, we hope to create a snapshot of feminist discourse about returning societal issues within an online community.

## **Word frequencies of r/Feminism: a first glance**

Before taking a closer look at keywords around our themes, we want to start by exploring the general words used in our corpus. In order to do so, we will create a word cloud with Voyant's 'Cirrus tool'. The Cirrus tool creates a word cloud of the words from our corpus. Here in image 1 it is easy to notice that the most frequent words appear bigger and less frequent words appear smaller. We use this tool because it helps us to get to know our corpus thoroughly. For instance, we could easily look for words we know for certain are connected to our chosen themes. Furthermore, we could draw some preliminary conclusions and assumptions around other words and see, by using Voyant's other tools, how these words are connected to our themes or whether the words are connected to them at all.



confirms that, although we already have a clearer overview of the words used in our corpus, we do need to gain insights into the various ways these words are actually used in order to draw conclusions from these word frequencies.

There are words in this word cloud that are at first glance not immediately connected to our themes. Yet, they do give us the opportunity to raise some questions about these words and their frequency which we can explore later on. For example, the word ‘time’ (124 times). Why this word is used so frequently is still a puzzle to us. It could be that the users of Reddit are, in the light of all the ongoing issues against women’s rights all over the world, very aware of the contemporary world they live in. We also see words like ‘sexual,’ (93 times) and ‘sex’ (108 times). It could be that this is connected to sexual violence against women. Moreover, we see that the word ‘white’ (55 times) is also used quite often. This could indicate that the users on the subreddit see some societal issues around women in the same light as racial issues. Lastly, the word ‘feel’ (106 times) is used very frequently. This might seem unimportant but it could indicate that the topics which are being discussed on the subreddit are very emotionally loaded and people express how they *feel* around heavy loaded themes such as abortion, the Iranian protests or violence against women.

### **Word Collocations in r/Feminism: expanding our view**

Now we have a simple understanding of some of the most frequent words in our corpus, it is time to take a closer look. We will do a textual analysis of our corpus guided by our chosen themes based on some keywords. These keywords help us to create a snapshot overview of how many times these words occur, how they are related to other words and their place in the rest of the corpus. More importantly, they can also give us insights in the ways our themes might even be connected to each other. Our keywords are mostly based on a few of the most frequent words from our word cloud and based on our chosen themes. In order to explore the words used around abortion more, we used ‘abortion,’ ‘abortions,’ ‘law’ and ‘rights’ as our keywords. We also used the keyword ‘roe\*.’ This could give us insight into the words connected to the overturning of Roe v. Wade in the United States on the 24th of July. Putting the ‘\*’ behind our keyword, gives Voyant the instruction to include everything that is behind the word as well. By doing this, we hope to see whether used words which address the overturning of Roe v. Wade are connected to



the words used which address discussions about abortion. For the discussions around Sharia law and the Iranian protests of 2022 we used ‘iran’, ‘iranian’, ‘protest’, ‘protests’, ‘islam’, ‘islamic’. The words ‘law’ and ‘rights’ could also be applied to this theme. For violence against women we chose ‘violence’ but also words like ‘sex’ and ‘sexual’. As we have seen in the word cloud, these words appear quite frequently and could be connected to ‘violence’. These keywords are meant to help us explore the many ways users of Reddit use certain words to express themselves around these themes.

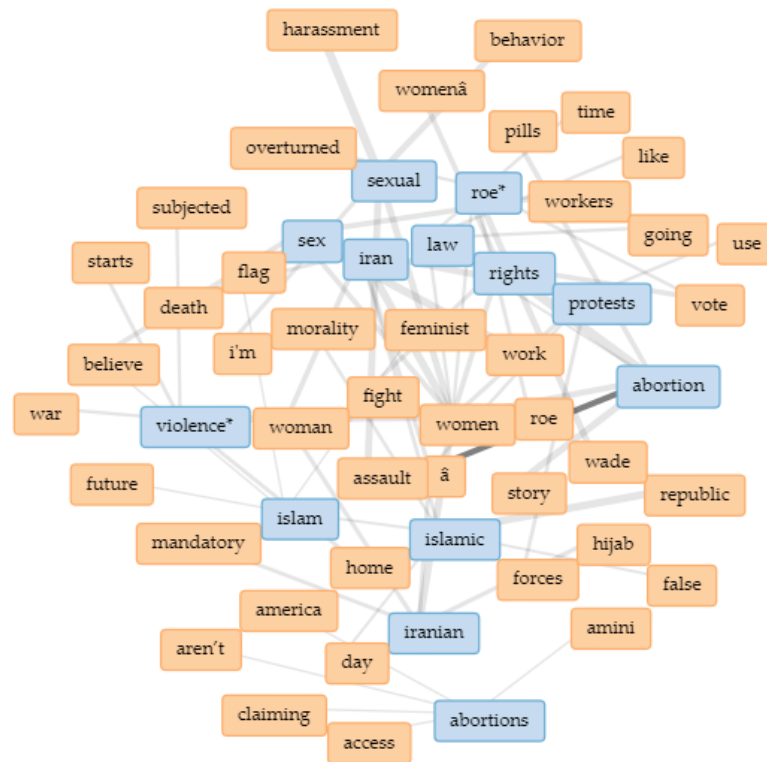


Image 2: Collocation Graph with keywords (For a better view please go to:

[https://voyant-tools.org/?corpus=c9e14b857b885b1f76dee69dea8473c8&view=CollocatesGraph&query=islamic&query=islam&query=violence\\*&query=abortion&query=abortions&query=iranian&query=iran&query=law&query=rights&query=sexual&query=sex&query=protests&mode=corpus](https://voyant-tools.org/?corpus=c9e14b857b885b1f76dee69dea8473c8&view=CollocatesGraph&query=islamic&query=islam&query=violence*&query=abortion&query=abortions&query=iranian&query=iran&query=law&query=rights&query=sexual&query=sex&query=protests&mode=corpus)

We start by looking at the theme of abortion. As said above, the word ‘abortion’ appeared 104 times in our corpus. Moreover, the graph shows that this keyword is already clustered with a lot of our other keywords. We see that abortion is connected to ‘rights’ and ‘law’. This could mean that the users of Reddit thoroughly discussed abortion laws as well as women having the actual right to get an abortion. In addition, the word ‘time’ which appears in the word cloud quite frequently is 3 times connected to law but not to any of our other keywords. Our keyword ‘abortions’ is connected to ‘Amini’. Although the word *Amini* is only mentioned once in close proximity to ‘abortions’, it does indicate that there was a post which connected the Mahsa Amini protests of 2022 with abortions. The keyword ‘abortions’ is also connected to the word ‘america’. This connection also appeared once but it is probable that this is a reference to the overturning of *Roe v. Wade*. It's interesting to note that there is no link between our keywords ‘abortion’ or ‘abortions’ and our keyword ‘roe\*’ when we look more closely at it. We do see that the keyword is connected to the words ‘overturned’ and ‘vote’. This definitely shows that the overturning has been discussed on the subreddit. That the actual word ‘abortion’ is not mentioned could indicate that these posts were more political in nature, where the users would give a description of the actual events happening. Moreover, as the word ‘roe\*’ only appeared 18 times and the word ‘abortion’ 104 times, it appears that the theme abortion is more discussed in general and not with regard to the overturning of *Roe v. Wade*. The users on the subreddit might talk about abortion rights and laws in general or people’s personal experiences. For instance, the word ‘story’ appeared 13 times with regard to the word ‘abortion’ which could mean the users of the subreddit were sharing various stories about abortions.

The words used to address the Iranian/Mahsa Amini protests of 2022 also give some interesting insights. For instance, by looking at the keyword ‘iran’, which is used 78 times, we see that it is connected to our other keywords like ‘protests’ and ‘islamic’. Moreover, by looking at the graph we see that the word ‘death’ is used 4 times with iran. The keyword ‘iranian’ is connected to ‘women/woman’, ‘hijab’, and ‘mandatory’. This could indicate that the users are discussing the Iranian women who are forced to wear a hijab. The keyword ‘protests’ is connected to ‘forces’ which is used 4 times with the word. This could indicate that the users discuss how the forces are handling the protesters. The word ‘islamic’ is mostly connected to the word republic (16 times), which is probably a reference to the Islamic Republic of Iran where the protests are happening. Furthermore, the keyword ‘islam’ is not connected to any of our other

keywords. Just as with our keyword ‘abortion’ and ‘roe\*’ this could mean that the users of Reddit are discussing the Islamic religion more in general. As we can see the word ‘believe’ is mostly connected to the keyword. However, the word ‘islamic’ is certainly connected to our keyword ‘iran’. So the users of the subreddit do lay some connection with regard of their word use to the protests and the Islamic religion in general. Overall, these collocations do give an indication of the ways the users of reddit discuss these political events. As most collocations are relatively distributed, there is no connection that is very noticeable per se, this could mean that the users try to discuss this issue from various points of view or simply describe the events around the Islamic religion and the protests in general to other users in the community.

Finally, our collocations graph helps us to understand the word use around the theme violence against women. As we can see our keyword ‘violence’, which is used 45 times, is 7 times connected to the word ‘women’. However, we also see that the word is 4 times linked to the word ‘home’. Which could indicate that the users talk about their own experience of violence at home among other things. We also see that our keyword is connected to the word ‘subjected’. Even though it is only used 3 times with proximity to our keyword, it does say something about how violence and suppression are returning themes in general and, to be specific, within a feminist online community. The keyword ‘sexual’ which appears even more time in our corpus than the word ‘violence’, namely 93 times, is connected to words such as ‘harassment’ and ‘assault’. Compared to the other keywords we looked at, these words are used quite often together. The word ‘harassment’ is 20 times connected to our keyword and ‘assault’ 13 times. This could indicate that the users of the subreddit might share their own personal experiences again. Moreover, as more and more emerges within the media and elsewhere about the ever increasing frequency of women facing these issues, it would not be a surprise that these issues are thoroughly debated in communities like r/Feminism.

### **Different trends between title and posts**

We will briefly take a look at some trends based around our keywords. In particular we want to gain some insight into the differences in word frequencies between the title of the threads and the actual posts. In order to do so, we used Voyant’s ‘Trend tool’.

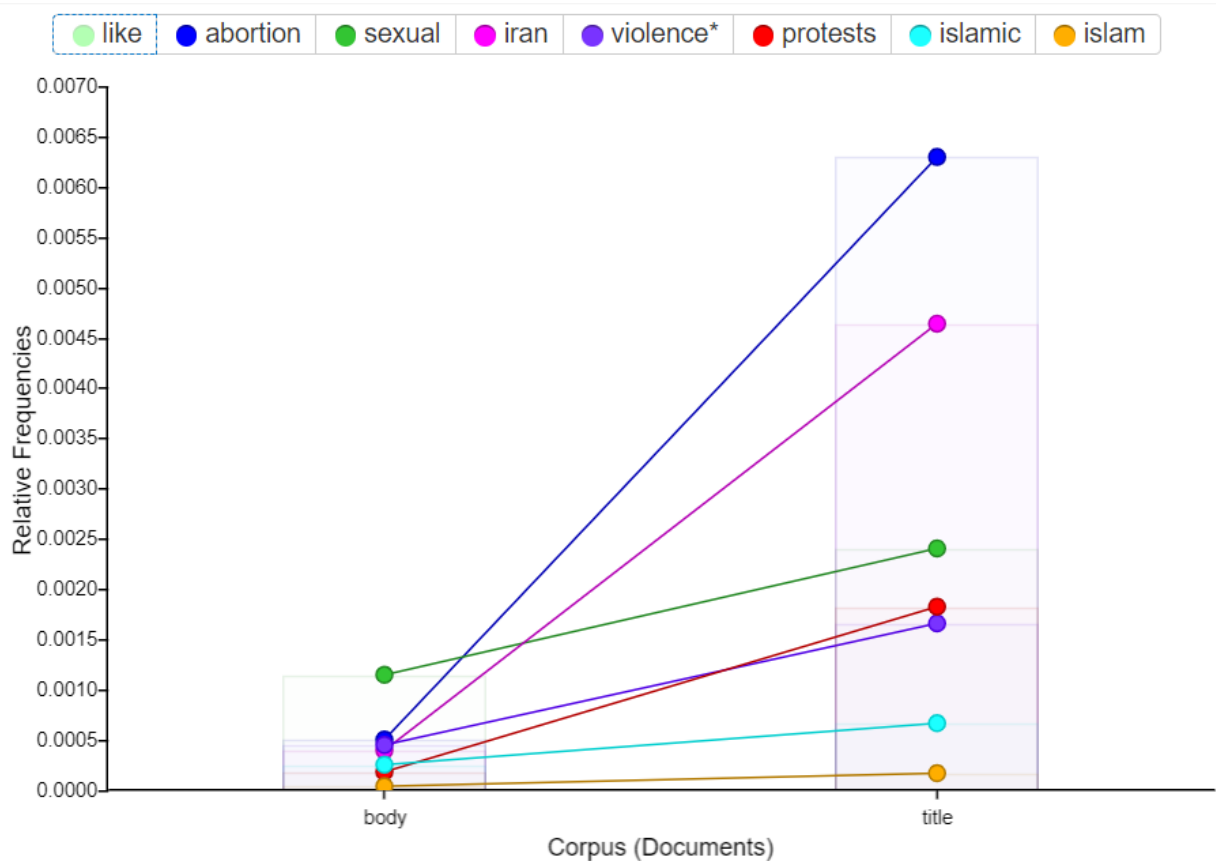


Image 3: Differences in word frequency of our keywords between title and post. For a better view please go to:

[https://voyant-tools.org/?corpus=69477cd55397b4182e98a8f4bb4098b1&query=like&query=sexual&query=violence\\*&query=islamic&query=islam&query=protests&query=iran&query=abortion&mode=&view=Trends](https://voyant-tools.org/?corpus=69477cd55397b4182e98a8f4bb4098b1&query=like&query=sexual&query=violence*&query=islamic&query=islam&query=protests&query=iran&query=abortion&mode=&view=Trends)

By looking at the graph, we already saw one very interesting thing about our corpus: all our keywords appear more in the titles than in the actual texts of the posts. How could this be? One explanation is that the users of r/Feminism post a lot of visual material. They could make a title of a thread and post an image or video as the body of the text. Furthermore, we see in the graph that our keyword ‘abortion’ is not only the most frequent word used in the titles altogether, it also has the biggest differences between the word frequency of the body of the threads. This could mean that the users post a lot of pictures and videos with regard to this theme or very brief posts where they might ask questions to other users. The same goes for our keyword ‘Iran’ which is also mostly used in the titles.

abortion iran violence\* protests islamic islam\*

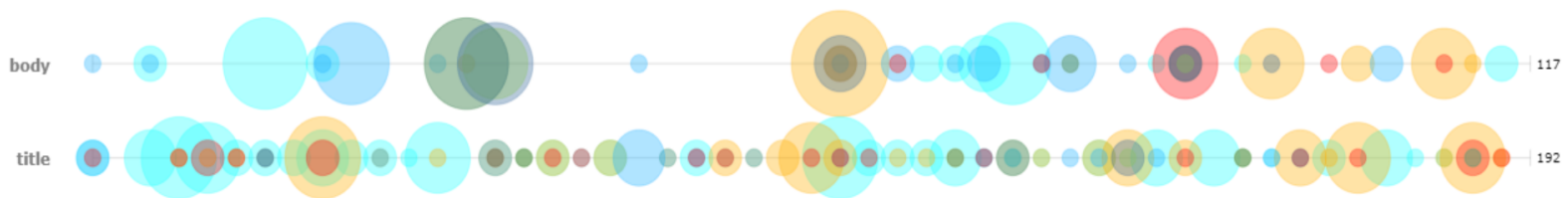


Image 4: Bubblelines graph which shows the difference of word frequencies between title of the thread and the actual posts. For a better view please go to:

<https://voyant-tools.org/?corpus=69477cd55397b4182e98a8f4bb4098b1&query=women&query=like&query=men&query=just&query=people&docId=1d32631b5167386100a5f98ff67638f5&docId=49d638620c886000ca251c699a505fe8&view=Bubblelines>

In addition to the trends graph, by using Voyant's 'Bubblelines tool' we might create a clearer view of the differences between word frequencies between the title of the thread and the actual posts. The 'title' and the 'body' are represented as a horizontal line which is divided into segments of equal length (50 segments). Each selected word is represented as a bubble with the size of the bubble indicating the word's frequency in the corresponding segment of the text. The larger the bubble the more frequently the word occurs. What is interesting from these bubblelines, is that the words in the title appear more frequent in all the different segments. Yet, when we look at the bubbles on the 'body' line we see that the ones who do appear are way larger. In other words, the word frequency of these words in the separated segments are bigger than in the segments of the title. This means that our keywords are indeed more distributed throughout all the titles in our corpus. However, something which our trend graph did not show, is that the word frequencies in different segments of the posts are larger, meaning that it could be very likely our keywords appear often in one post. Although there are more posts with only a title discussing our themes, there are however some posts that do mention our keywords more in depth. By only looking at these word frequencies we already get an idea of the way posts around our themes are constructed: some are short with only a title, meant to grasp the users attention and some are more in-depth discussing various aspects of one of the three themes (or a combination thereof).

## Word contexts of r/feminism: taking a closer look

Now that we have an overview of all the word frequencies and collocations, it is time to build upon our preliminary conclusions and assumptions by taking a closer look. In order to do so, we are using Voyant's 'Keyword in Context' tool. This shows each occurrence of a keyword with a bit of surrounding text. This tool is very useful for studying more closely how terms are used in different contexts.

We will start by looking at (a selection of) our keywords around the theme surrounding the questions of abortion. As this tool gives a lot of information, we will only show the first few from both the body and title in this report. For a full view please go to our Github repository or press the link.

body	doesn't go against the rules of this community. I just want to let everybody know about a ...	aborti...	Rights board that is OPEN to EVERYONE to post on (Yes, you can post too) and is part ...
body	When Roe Vs. Wade got reversed we asked our 2 Million followers on Facebook & Insta...	aborti...	stories and we chose to intermittently publish nearly 200 of them here with you. If you lik...
body	that far back (I neither lived in Canada nor even lived at all in the 1980s), I know that our	aborti...	laws were very restrictive. For those of you who don't live here and don't know, they were...
body	kept going to court until the Supreme Court declared the laws unconstitutional, although t...	aborti...	laws "would" be constitutional. But since then there has been no serious attempt to pass ...
body	Vermont and Massachusetts (to my knowledge California is not on the list). There is no e...	aborti...	in Canada. The law neither permits it nor prohibits it. It's simply legal by default because t...
body	government stays out of the issue. In other words, our laws neither grant nor deny the rig...	aborti...	. Just like the law doesn't explicitly grant the right to have your wisdom teeth removed, or ...
body	who would like to pass "some" law (gestational time limits for example), there's practicall...	aborti...	illegal altogether. So there's simply no need to explicitly affirm a right that nobody is tryin...
body	just like our Conservative voters. Which I had suspected for quite some time, just by view...	aborti...	and other issues such as gun control, universal healthcare, same sex marriage (although...
body	4649-8aae-b19bf3256758) What resources are available for leaving Algeria to escape ge...	aborti...	Rights**](https://bbs.market/PROCHOC) I have been through two terminations, one of w...
body	have a choice. I will always be pro-choice ❤️ Submitted anonymously by justme91@bbs ...	aborti...	Rights board. You too can share yours to help support others so they know they are not a...
body	16. I can't fucking do this and I'm so scared as a feminist woman. My senator, Grassley, i...	aborti...	and anti-contraceptive. Contraceptives are literally the only thing that help me with my en...
body	literally the only thing that help me with my endometriosis pain and I'm so goddamn scar...	aborti...	attacked either, but I know it will be. I've already been taken advantage of before—if they...
body	did a video on an issue that seems underreported outside of El Salvador. In the video we...	aborti...	laws & how judicial interpretation is leading to one of the biggest injustices in Central Am...
body	details.) PLUS, we share where incumbents and challengers stand on Roe v. Wade, the ...	aborti...	. -Okay so i know the title is, strong, hear me out. I myself am a sex-positive feminist, but ...
body	23/23318877/utah-womens-equality-ranking), including in the year this Talk took place: 2...	aborti...	care along with the American sex education/ lack off reproductive education/health was p...

Image 5: Context of the keyword 'abortion' within posts. For a better view please go to:

<https://voyant-tools.org/?corpus=69477cd55397b4182e98a8f4bb4098b1&query=women&view=Contexts>

The first thing we see within the actual posts is that our keywords 'rights' and 'law' are indeed very much connected to the themes of abortion. We see a variety of posts here. Some address more politically loaded discussions, others are about personal experience. As we have seen in the word cloud, where the word 'feel' appeared a lot, in these contexts we also see a lot of posts where the users express their feelings. Although the word is not specifically mentioned here, we see a lot of expressions where the users say they are scared or mad. We also see the discussions around Roe v. Wade mentioned a couple of times. This means that this topic is actually discussed in the light of this political theme. When we put 'Roe\*' or 'Roe v. Wade' as our keyword we see several titles and posts popping up which discuss this topic and all the events surrounding it

thoroughly. Furthermore, what is also very interesting is how the users ask, even when they mention the overturning of Roe v. Wade, about personal abortion stories. This indicates that even though a lot of political opinions are shared on this subreddit, there is also a lot of room for a more personal perspective.

title	On New Year's Eve, Iranian women express their protest by playing music. She led two h...	aborti...	rights â by persuading Republicans   Rachel Sweet on the â uphill battleâ to ...
title	has bothered me for a long time Being a teen girl sucks Is the whole thing a lie? EVERY ...	aborti...	ARGUMENT DEBUNKED The curse of Korean entertainment visas - how they're used in...
title	for an education. If my sister & my mother canâ study, then I DONâ T accept this...	aborti...	Rights & Support PIERS MORGANâ S STUPIDITY IS HURTING WOMEN AND LGB...
title	a boy to go to school in Afghanistan in the 90s. That would never fool todayâ s cruel T...	aborti...	Story #32. A Right I Hope My Daughter Retains. Iranian chess player â moving to Sp...
title	changed politics for women - The Boston Globe Men slut-shame women to cover up for s...	aborti...	access may face higher suicide risk â study Sexual Grooming: Stages, Warning Sign...
title	only once gets 15 years in jail in the US. Iran protests: 100 detainees facing death penalt...	aborti...	Story #30. I Was Pregnant & With A Man I Didn't Want To Share A Life With. in my countr...
title	tired of the idealization of a toxic manipulative relationship People donâ talk about th...	aborti...	grifters So completely over the obsession with appearance and in particular weight amon...
title	days, and sexist wages. I think I cracked the code yâ all More bans and creative clinic...	aborti...	access in a post-Roe   In the summer, the US supreme court, with its new hard-right sup...
title	post-Roe   In the summer, the US supreme court, with its new hard-right supermajority, di...	aborti...	secured almost 50 years ago through Roe v Wade isn't Ana de Armas being used like Ma...
title	v Wade isn't Ana de Armas being used like Marilyn Monroe? Recommended reading on c...	aborti...	Story #27. This Is Why Abortions = Healthcare. I was in the newspaper today --- Suffolk ...
title	Points out Misogynoir. Tory Lanez guilty on 3 charges. Iran protests: "No going back" as ...	aborti...	Story #28. I Will Fight For The Women In America. Texas Lawmakers Plan To Further De...
title	100 days My Abortion Story #28. I Will Fight For The Women In America. Texas Lawmak...	aborti...	Rights In Upcoming Legislative Session   All Texas clinics have halted abortion care, but t...
title	Women In America. Texas Lawmakers Plan To Further Decimate Abortion Rights In Upco...	aborti...	care, but the anti-abortion movement says its work isnâ over  wow American Taliban...
title	Plan To Further Decimate Abortion Rights In Upcoming Legislative Session   All Texas cli...	aborti...	movement says its work isnâ over  wow American Taliban at its best Feminist literatu...
title	women Afghanistan: Taliban bans women from working for NGOs The F.D.A. Now Says I...	aborti...	Pills   well I think these is a good one to start the evening Boyfriend thinks lâ m bias f...

Image 6: context of the keyword 'abortion' in the titles. For a better view please go to:

<https://vovant-tools.org/?corpus=69477cd55397b4182e98a8f4bb4098b1&query=women&view=Contexts>

What we see in the titles is that abortion is very much discussed with the word 'rights'. People are sharing their opinion about having the right for abortion. Moreover, as we saw earlier, we see that the topic of abortion is also proposed in the light of Iranian women and women in Afghanistan. This confirms that the users on the subreddit connect several themes in order to substantiate their opinions. Interesting is the threads around abortion which, as we expected, are surrounded by people sharing their personal stories as the titles contain the words 'abortion Story #27' and so on.

When we search for our keyword 'rights' we see that in both the title and the body this word is generally connected to all of our themes. The users are discussing abortion rights, but also the rights of women in countries which are suppressed by, or protesting against, different forms of Sharia law. In addition, we also see users talk about rights with regard to men and several forms of abuse or violence. This shows that the users within this community have a strong sense of emancipation and making this as available as possible for like-minded reddit users. See the image below for an overview:



title	are trying to block voters from having a say on abortion   Ballot initiatives have proven a win... rights	activists â&#x2666â&#x2666 but Ohio Republicans want to make it harder for voters   they fears th...
title	known that Sonya Sharifi (17 years old) was to be sentenced to death, young people stood ... rights	and freedom. People in Abdanan showed recordings and photos of their weapons a...
title	ÿ.♠️: "Action "Women in Black" in Vienna. On December 10, 2022, on the Day of the Univer... rights	, activists held an anti-war performance "Women in Black" in the center of Vienna." "...
title	abortion pills through their GP The secret diaries of women protesting in Iran Help finding lit... rights	, equal lefts Women's Personality Traits and Sexual Behavior Why Women Have Bet...
title	pureâ&#x2666â&#x2666 but men are praised for being promiscuous? Feminist AntiWar Resistance ð&#x2666ð&#x2666... rights	Council, Eva Merkacheva, called on Vladimir Putin to stop the practice of confining ...
title	confining women accused of non-violent crimes in pre-trial detention centers. Earlier, Putin ... rights	Council" Bodhana Sivanandan a seven-year-old breaks record to share English wo...
title	With Roe v. Wade overturned in the US, menstruation apps have become a new concern in... rights	. Can Feminism Survive Class Polarization? I donâ&#x2666t like my philosophy class but...
title	game of 'morality police Women screaming to let off their rage How I talk to my young childr... rights	and womenâ&#x2666s healthcare. Hi, I think I found a human trafficking subreddit and th...
title	about porn: Majority of Irish believe pornography is causing serious harm to society, Wome... rights	activist tells of beating at hands of Taliban In 100 years, these countries are going to ...
title	Justynað&#x2666ð&#x2666ð&#x2666 MENSTRUAL DIGNITY â&#x2666Weâ&#x2666re losing hopeâ&#x2666: Hondura... rights	pledge Really tired of guys thinking I donâ&#x2666t know anything Colombia police used...
title	think I know why incels didn't like it (spoilers) The true story of the Match Girls whose fight f... rights	became the first ever industrial action taken by women for women (and now it inspir...
title	killed by family member in 2021, UN says The True Story Of The Jane Collective And Their ... rights	They chose "the pretty ones": Witness accounts reveal how Iran's security forces use...
title	From farm to courtroom: meet Kenya's first female chief justice Surprising Feminism in Rur... rights	Of A Woman In A Live-In Relationship In India : Legal Status And Landmark Judgme...
title	bigger attention to the mistreatment of Qatari women? How to break free from male gaze? ... rights	in iran. woman life freedomð&#x2666â&#x2666â&#x2666» Iran players opt not to sing national a...
title	Republicans have an asinine theory   When Republicans talk about "incentivizing" marriage... rights	and economic equality, to create a society where women feel they have to get marrie...

Image 7: Context of the keyword ‘rights’ in both title and thread. For a full view please go to:

<https://voyant-tools.org/?corpus=69477cd55397b4182e98a8f4bb4098b1&query=women&view=Contexts>

The actual posts and titles connected to our theme of Sharia Law and the more recent Iranian protests also show some interesting results.

body	it, if they do then it'll be a domino ceasing them to exist. Committee got replaced by morality...	iran	stepped towards more limits on women by making them the main target this time. N...
body	as a child just say that. Rant over. 🙏 As many of you are aware, the past two months have...	iran	with nationwide protests calling for "women, life, liberty". What started with demonstr...
body	forefront of this movement since the beginning. But the cries of "We will fight, we will die, bu...	iran	back" and "This year is the year of blood, and Khamenei will be overthrown" can be ...
body	the year of blood, and Khamenei will be overthrown" can be heard across over 100 cities an...	iran	, by all people old and young, male and female, poor and wealthy. The Iranian peopl...
body	this issue affects **you** directly. As Noam Chomsky said in 1994: >[The US is] a very fu...	iran	in the degree of fanatic religious commitment. You get extremely strange results. For...
body	this year, shows that secularism can be encroached upon by religious institutions, and wom...	iran	was not always a hellscape for women's rights. Back in the 70s there were women j...
body	were women judges, ministers, and many other professionals working in important position...	iran	before the Islamic Revolution." Religious takeover of Iran caused many of those acc...
body	working in important positions. We've all seen those pictures on Reddit of "Iran before the I...	iran	caused many of those accomplishments to be rolled back. The struggle of Iranian w...
body	failed to do so. Especially if you are an American, you can pressure your congressperson to...	iran	as a revolution. This simple act may take you 30 minutes at most, but such an appro...
body	a 22-year-old Iranian woman** named Mahsa Amini, also known as Jina Amini, died in a ho...	iran	, under suspicious circumstances. The Guidance Patrol, the religious morality police...
body	hijab or publicly cut their hair as acts of protest.[12]](https://en.wikipedia.org/wiki/Death_of...	iran	Human Rights](https://en.wikipedia.org/wiki/Iran_Human_Rights) reported that at lea...
body	can spare only 6 minutes of your day, this is worth reading. [https://medium.com/@iranvoic...	iran	-77bd2dad67a3](https://medium.com/@iranvoice/the-breadth-of-misogyny-in-iran-77...
body	worth reading. [https://medium.com/@iranvoice/the-breadth-of-misogyny-in-iran-77bd2dad6...	iran	-77bd2dad67a3) There are days where I wondered about just abruptly ending conv...
body	been constantly doing and that's why its so irritating? If they are a true friend, they would un...	iran	are the product of an Islamist theocracy that has, amongst many barbaric laws, legal...
body	of girls of all ages and intercourse from the age of 9. As someone who lived for a time in	iran	as a young girl, I know that these girls are not just blindly emulating what they see of...

Image 8: Context of our keyword ‘iran\*’ in the posts. For a better view please go to:

<https://vovant-tools.org/?corpus=69477cd55397b4182e98a8f4bb4098b1&query=women&view=Contexts>

In the image we see that the posts of the users are mainly focused on the events which are happening surrounding the protests. We also see that people are sharing as much information as they can by referencing other sources. Moreover, we see again how the users also share their personal experiences. For example, the post below in the image is describing their own personal experience from living in an Islamic country.





that the users are eager to share and gain as much information about this event as possible. Most discussion surrounding the Islamic religion is based on these protests. However, when we look at the theme of abortion, we see that this is not solely based on discussions around Roe v Wade, which is also an important political event, but is also more discussed in general.

Finally, we will take a closer look at some of the frequent words in our corpus surrounding the theme of violence against women. As we have seen in the collocations graph, this theme is mostly connected to sexual violence.

body	participate in paid careers, is ruining the economy and society in some way. They inevitably...	violence	in our modern-day society, and blame much of these modern-day problems on wom...
body	you are a woman who expresses any kind of sexual desire (even for your own husband) yo...	violence	. The outcome is that since the men have convinced themselves that a good muslim...
body	ual275naxz5a1.jpg?width=1280&format=pjpg&auto=webp&s=33497bc7ce16ed1e10fa45ad...	violence	starts at home" - these phrases were formulated as slogans (telegram . me/femagai...
body	Korean cell of the Feminist Anti-War Resistance. What are they about? About the cycle of m...	violence	. There are studies that show a link between gender inequality and military aggressi...
body	that show a link between gender inequality and military aggression: countries that do not pr...	violence	are more likely to unleash aggressive wars. A person who for many years with impu...
body	starts at home," says the partisan.press posters. We have covered the word "everything" wi...	violence	against loved ones, encouraged by the state, has spilled out beyond our state borde...
body	state borders and acquired the most monstrous forms. We are convinced that the timely ad...	violence	would reduce the level of approval of violence and war in Russian society. Maybe th...
body	We are convinced that the timely adoption of a law on domestic violence would reduce the l...	violence	and war in Russian society. Maybe that's why it was never accepted. We repeat onc...
body	damage, even death. Again, many of these women are out of line (from the context supplie...	violence	is never the answer, and anyone who gets physical are opening themselves to physi...
body	needs to grow For a little more context in the past 24 hours two different times I've been thr...	violence	as a way to "correct" my beliefs here on this charming lil site So my main point is tha...
body	experience? There ist a new documentary called "15+" by Ceylan Özçelik about two wome...	violence	by their husbands - and killed the men in self-defense. Here is an interview with the ...
body	it proves that misogyny is one of the very things that leads white women to engage in and p...	violence	, as a desperate attempt to grasp onto any level of power they can possibly take hol...
body	not an attempt to paint racist white women as poor innocent victims but to show how patriar...	violence	and ignoring the way racist white women are influenced by them is harmful. I have r...
body	not sure about the exact number but if i remember correctly, 88% of popular porn videos incl...	violence	and it's usually against women. -They rarely acknowledge and talk about how sex w...
body	about how sex work is dangerous, and scary. They focus more on individual empowerment/...	violence	, when we could be focusing on both. -A woman choosing to engage in bdsm isn't in...

Image 11: Context of the keyword 'violence \*' in posts. For a better view please go to:

<https://vovant-tools.org/?corpus=69477cd55397b4182e98a8f4bb4098b1&query=women&view=Contexts>

When looking at the keyword 'violence\*', we immediately noticed some posts that are talking about military aggression. These posts are making the argument that gender inequality would increase military aggressions. Moreover, we also do see some posts that are dedicated to violence against women. Some mention domestic violence or violence in porn videos. We also see some posts which do connect violence to the questions of racism, which we touched upon by looking at the word cloud. For example, there is a post which talks about their aversion to other white racist females. By looking at this keyword in the context of the posts we see less posts dedicated to sharing their personal experiences and more posts about sharing information or proposing their opinions.

title	Iran ousted from UN body tasked with empowering women Feminist AntiWar Resistance 0...	violence	starts at home" - these phrases were formulated as slogans by the Korean cell of th...
title	before marriage: "Let's go" or "Hell No"? A young Turkish woman who starred in a video urg...	violence	against women has been shot dead by her brother. Yes we can. Brittney Griner Is C...
title	women has been shot dead by her brother. Yes we can. Brittney Griner Is Coming Home! U...	violence	crisis only getting worse Are women getting angrier? Doctors fitted a contraceptive c...
title	will not even try to listen to your point of view Brooklyn D.A. Assigns 1 in 5 Workers to Fight	violence	Against Women the violence of r/AskReddit Mabuhay! As part of Programa Sinebers...
title	to listen to your point of view Brooklyn D.A. Assigns 1 in 5 Workers to Fight Violence Again...	violence	of r/AskReddit Mabuhay! As part of Programa Sinebersidad's advocacy and social r...
title	AskReddit Mabuhay! As part of Programa Sinebersidad's advocacy and social responsibility...	violence	Against Woman and Children. In support of this campaign, we invite you to join and ...
title	School Dress Code Resources? Advanced Placement Women's History Course Amne...	violence	Victims and Survivors UN chief: Let's proudly declare that we are all feminists ...
title	inspired the latest Netflix Enola Holmes movie) Protest with ROSA on the international day f...	violence	! Spanish right launch sexist attacks on equality minister over consent law I was gro...
title	violating. Spain's new sex abuse law sparks jail terms row One out of three women is subje...	violence	from the age of 15 #mahsaamini Speaking of incredible courage. Iranian police ope...
title	Amendment 2. Afghanistan: Taliban ban women from Kabul parks Iran protests: The teenag...	violence	against women in media. Kerala IAS officer: Divya S Iye's speech with child in arms ...
title	are going to give the girls to their families despite the fact that they are adults and fleeing fr...	violence	. The unfairness when it comes to men and women's bodies I feel a considerab...
title	Musk Wants You to Have More Babies how is there magically racial equality in HoD and Bri...	violence	against women is still alive and well? In the US, the constitutional right to terminate ...
title	Thoughts on this! TD;LR: The hidden bias against women in medicine: misdiagnosis, error ...	violence	survivors to keep addresses confidential   wow these evening is getting bett...
title	Platform Design. I'm a female founder designing social media that empowers us, com...	violence	: The Case of Tigray - Reinventing Peace Fascinated by these grown adults who fee...
title	pressure disorders, hemorrhage, or sepsis). The majority of these pregnancy-associated ho...	violence	and firearms, and are entirely preventable People who think Marital rape ( or relation...

Image 12: Context of the keyword 'violence\*' in titles. For a better view please go to:

<https://voyant-tools.org/?corpus=69477cd55397b4182e98a8f4bb4098b1&query=women&view=Contexts>

When looking at the titles, we see that our keyword is very much connected to the Iranian protests. Moreover, we see in the titles that the specific theme of violence against women is also discussed quite a bit. Here we see again that the users propose several issues of ongoing problems in the world surrounding this theme and mainly share their opinion.

body	bad. It's all I'm getting shown, while other pieces are getting ignored most of the time. I tried...	sexual	art piece of a man on there and other subreddits once, and although it wasn't my be...
body	the ones getting a lot of upvotes, but it must've gotten only one or two upvotes and multiple ...	sexual	piece of a man in a similar skill range of a lot of the sexual art pieces of women posted
body	upvotes and multiple downvotes. A sexual piece of a man in a similar skill range of a lot of the	sexual	art pieces of women posted. I feel like I'm going crazy because I'm the first one that ...
body	let him have sex with (missionary was the only unsinful position). I should only express love...	sexual	pleasure, then I should wait until he is finished. Eventually I fled when I realized that ...
body	that slut-shaming is prevalent would be a big understatement, if you are a woman who expr...	sexual	desire (even for your own husband) you have to fear violence. The outcome is that s...
body	is that since the men have convinced themselves that a good muslimah practically doesn't ...	sexual	needs, therefore they don't have to worry about pleasing her. Sex is mostly regarde...
body	the entered / violated is lesser in the relationship), BECAUSE OF THIS, women must be th...	sexual	realm of the relationship in order to even things out. Basically, that she's inevitably (if...
body	<a href="https://people.com/music/tory-lanez-verdict-rapper-found-guilty-shooting-megan-thee-stallio...">https://people.com/music/tory-lanez-verdict-rapper-found-guilty-shooting-megan-thee-stallio...</a>	sexual	intercourse? To be more precise: I'm not very interested in those in psychoanalytic d...
body	I'm more interested in sociological perspective - impact of culture (toxic masculinity, pornogr...	sexual	intercourse and women. I'm interested in a bigger picture of those influences that wo...
body	life threatening. Does anything like this exist? My women's college friends got it right when t...	sexual	behavior wasn't empowering or wise decision making, and I have also come to reali...
body	college, who I eventually no longer talked to for unrelated reasons, had been particularly ha...	sexual	assault for the second time. They said it would happen again if I didn't stop my hype...
body	and even restated it, with different emphasis and different meaning from your real intention...	sexual	harassment experience. From one of their sentences, we know that the perpetrator ...
body	affected by buzzwords? Are there any other reasons that it could be bad besides the blatant...	sexual	harrasment? I just really don't know how to explain this without making the other per...
body	so incredibly sick of having to explain this to people, even my own father. I feel like my expe...	sexual	harassment will never, ever be taken seriously no matter where I turn. Aka, misogyn...

Image 13: Context of the keyword 'sexual\*' in the posts. For a better view please go to:

<https://voyant-tools.org/?corpus=69477cd55397b4182e98a8f4bb4098b1&query=women&view=Contexts>

As our collocation graph indicated, the keyword 'sexual' was in several cases connected to 'harassment' and 'assault'. Words which also could be considered as violence against women. When taking a closer look at the context of this keyword, we mainly see its connection to various themes. Some less serious: talking about art, asking questions or discussing relationships. However we also do see several posts which discuss the sexual harassment of women or sexual assault. These posts differ between sharing more political opinions or sharing personal stories.





expressed with other words such as ‘harassment’ and ‘assault’. This was mostly guided by the users sharing their political opinions or giving a description of political events.

### TensorFlows Embedding projector: Comparing our findings

It is time to investigate some of the common words and their embeddings outside of our corpus now that we have a better knowledge of some of them. In doing so, we will compare the embeddings of some of our frequent keywords in the corpus to the embeddings in TensorFlows Embedding Projector. By using this tool, we can graphically represent high dimensional embeddings, which helps us to understand different layers of our chosen keywords, related to our themes. The tool allows us to search for specific terms as well. It highlights words which are adjacent to each other in the embedding space. Where Voyant helps to analyze our keywords in the context of our corpus, the subreddit r/Feminism, TensorFlows Embedding Projector looks at the words and their collocations in general. In this way we can see the difference between the collocations of our words on r/Feminism and the collocations in the general world.

We will start by analyzing a few of our keywords which we used to explore the word use around the theme of abortion. When we type in the keyword ‘abortion’ we can see the following projection:

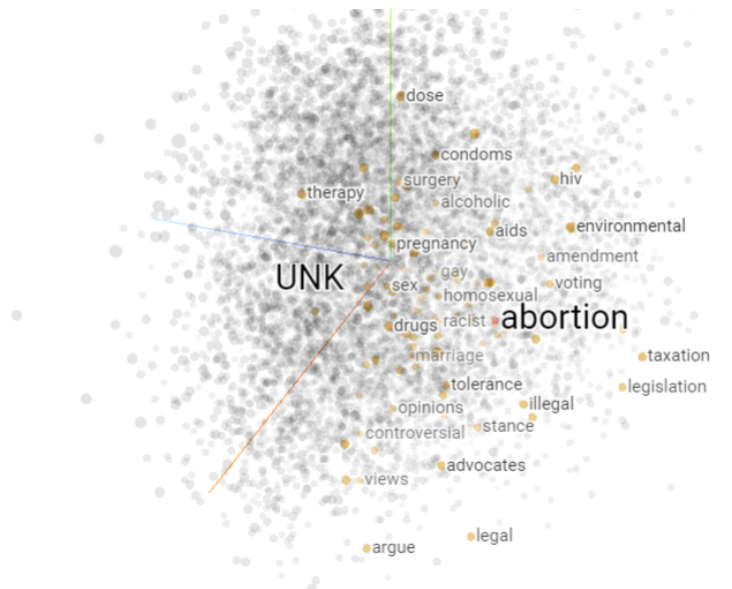


Image 15: Word embedding of our keyword ‘abortion’ in TensorFlow

Where our textual analysis of our corpus gave insight in the way the keyword ‘abortion’ was mostly connected to words like ‘rights’ and ‘law’ and discussed in the light of the overturning of Roe v. Wade, we see in the projector that the words connected to ‘abortion’ differ. On TensorFlow we can see that the keyword is mostly connected to words like ‘pregnancy’, ‘aids’, ‘hiv’, ‘circumcision’, ‘infant’ and ‘expectancy’. Also by looking at the image, we see words like ‘controversial’, ‘opinion’, ‘illegal’ and ‘legal’. This gives insights into the ways how abortion in general is also discussed elsewhere. However, considering that the r/feminism subreddit, which is mostly based on personal stories and political opinions in favor of abortion, only considers the word from an emancipatory point of view. By looking at the projector, we see that the topic of women with HIV or aids is more connected to the word abortion. As de Bruyn argues, there is a lot of discussion whether women who are HIV positive should have the right to an abortion in countries where this is not legal (2003). Given she wrote her article in 2003 and the fact that the word is still connected to our keyword in the projector, we could say that this is still very much debated to this day. Interestingly, this word is not connected to our keyword in our corpus at all. This could indicate that the users of the subreddit consider the discussions around abortion from a different point of view, where they connect contemporary events to the topic such as Roe v Wade and even the Iranian protests which are not connected to the keyword in the projector.

By looking at our theme of sharia law and the Iranian protests the projector does not give much information.

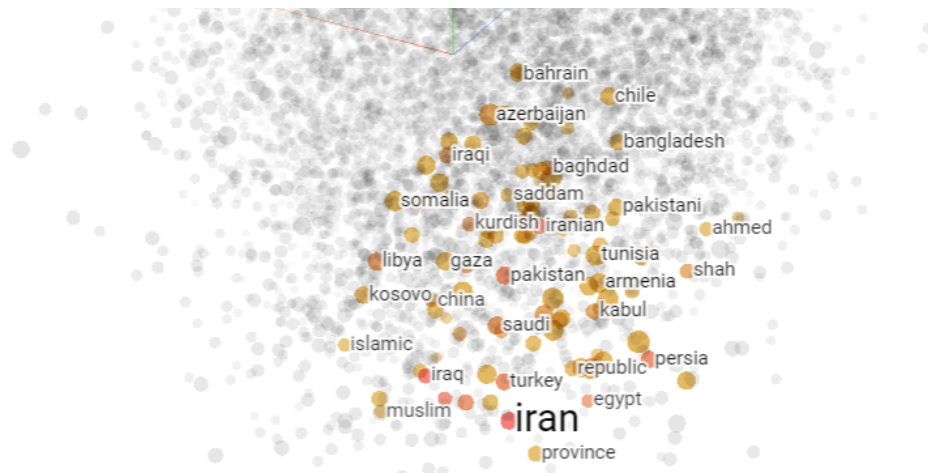


Image 16: Word embeddings of our keyword ‘iran’ in TensorFlow

In the image we can see that our keyword is mostly connected to other countries. Not even once, is the word ‘protests’, ‘women’, or ‘sharia’ mentioned. Where the word in our corpus was mostly connected to ‘protests’, ‘death’, ‘women’ or ‘hijab’. In our context analysis, we saw that the protests were thoroughly discussed by providing political opinions, information of the events or personal stories. The keyword ‘iranian’ gives the same results in the projector. For keywords like ‘sharia’ or ‘Amini’ we even got zero results. When we take a deeper look at the keyword ‘islam’ we only see words which are connected to religion. This gives us insight into the ways our keywords surrounding sharia law and the protests were not only frequently used but also very much connected to multiple aspects concerning these issues. It could be that in general, the words used around the protests are buried under all the other words which could connect to Iran or protests in general. As Francine Prose argues in *the Guardian*, there are a few (western) countries like the United States, who are overlooking the events happening in Iran. As the Iranian womens called up for foreign help, still most of the global attention is pointed towards Ukraine (2022). This could partially explain how our keywords are not connected to any of the words related to the protests or sharia law in our projector but are connected to them in our corpus, which represents an online space dedicated to women's needs all over the world.

By looking at our keywords connected to the theme ‘violence against women’ we can also gain some interesting insights with regard to our own corpus.

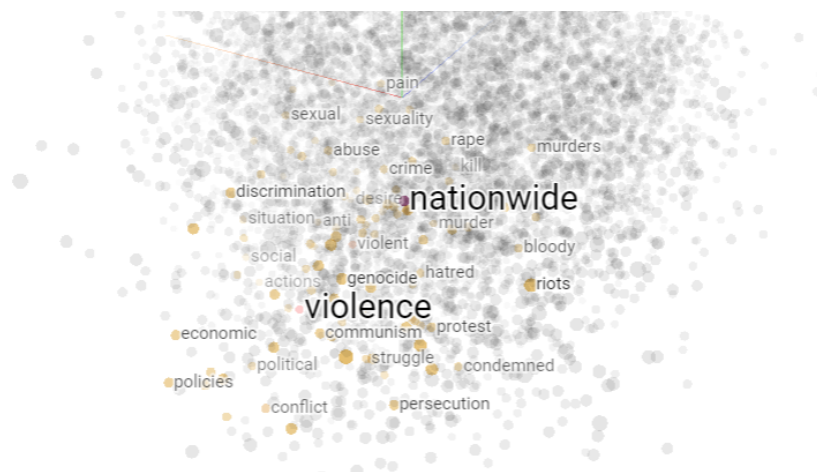


Image 17: Word embeddings of our keyword ‘violence’ in TensorFlow

When looking at the image, we see a few words which could be connected to our theme. For example, we see a few instances where words like ‘sexual’, ‘sexuality’, ‘rape’ or ‘abuse’ are used with regard to ‘violence’. By looking at the image we do not know for certain that this is specifically about instances with women. Moreover, we do not know if these words are expressed from a political or personal point of view. What we do know is that there are some resemblances with the embeddings of our keywords in our corpus. Indicating that these could be returning issues in general. In addition, when we looked at our keywords with regard to this theme with Voyants ‘keyword in context tool’ we saw that the topic of ‘violence against women’ was also discussed in the light of our other themes. Especially ‘sexual violence’ was in a few cases mentioned when words like ‘iran’, ‘iranian’, ‘islam’ or ‘abortion’ were mentioned.



## The limitations of Voyant

We have discovered some interesting findings through this textual analysis of some of the most popular r/feminism terms and phrases, terms that are linked to a few political themes. It gave us insights into a large number of posts and titles on the subreddit, which we could review and assess from a distance. By doing is, we were able to capture a snapshot of the word frequencies and -embeddings of a number of terms and words which revealed how themes on r/Feminism were perceived, debated and even linked to one another.

One could say that the method of textual analysis and the use of Voyant as a tool, is a form of distant reading. A method which has proven to be very useful within fields like the Digital Humanities. Distant reading, as proposed by Franco Moretti, is a method which allows a scholar to analyze large amounts of texts and see norms, patterns and continuities (2000). A scholar has now the tools to transcend the given texts and the opportunity to analyze tropes, themes and words. Just as we did by analyzing our dataset of r/Feminism, a dataset which contains over 700 instances of different posts and titles, where several themes were discussed. By applying a distant reading method in the form of a textual analysis, we could gain insights in various themes discussed on the platform without reading every post and title on its own. It allowed us to see connections between words and themes. Moreover, we could gain insight in the word frequencies of our corpus. Now we were able to see which words were used more than others, which in turn helped us to choose different keywords to explore our themes and, more importantly, gave an overview of the words which users of the subreddit used to give meaning to several important topics of feminist discourse.

Even though the methods of distant reading and textual analysis seem very promising, there are also a few downsides by looking at texts from such a distance. By using tools like Voyant and TensorFlow to perform these methods in practice, there is still crucial information that we have now overlooked. Just as Kitchin argues, the use of large sets of texts or data are not able to answer complex social questions. Especially within the Digital Humanities, most of the time only a surface snapshot is provided (2014). Our analysis with Voyant has provided a large amount of insights on the use and meaning of words on a subreddit. However, our insights were mainly sufficient to make some assumptions, preliminary conclusions or loose arguments. For this reason, our project is by no means a representation of the real world. It is not even a valid

representation of how the users on the subreddit think or perceive several themes which are of interest within feminist circles, be it online, offline or within academia. Even though the use of Voyant's context tool could partially overcome these issues, by allowing us to actually take a closer look at the posts within the subreddit, the abundance of posts make it hard and insufficient to go through all of them one by one. Still, it helped us to take a glance at the ways our keywords were actually embedded within several posts and titles. Eventually, we did manage to create a clear overview of several words which are used by users in an online community to express themselves. Although an incomplete understanding of everything that is connected to these discourses of Reddit users, it does provide us with information about a large corpus, which we could have not answered otherwise. For this reason, the implementation of a textual analysis is very great to set the stage for further research. Both the methods of distant and close reading could build upon the modest conclusions we made to make our understanding of words within feminist online communities more complete.

# Conclusion

Some of the major events surrounding women's rights in 2022 inspired us to choose the exploration of feminist discourse as our theme and relevant words as keywords. We collected comments from the subreddit r/Feminism as our corpus. Eventually we used the tools from Voyant and Tensorflow Word Embedding projector to perform a textual analysis of our corpus. In order to get a grasp of the most frequent words and phrases regarding our theme we looked at the word frequencies of our corpus in general. This helped us to explore our corpus, make some preliminary conclusions and see keywords we could explore further. In order to do so, we analyzed some of the collocations in our collocation graph. Here we saw how some of our keywords were used together, which already gave us insight into how the users on the subreddit used words to express these themes as well as the ways they connected these themes to other words or even together. Furthermore, we looked at different trends between title and posts with the Trend tool and the Bubblelines, which showed how our keywords were more spread over the titles, but frequently used in the actual text of the posts. Eventually, we used the context tool to understand how our words were embedded and the projector to see word situations outside the corpus to gain an intuitive understanding of the word use of feminist discourse and the differences of these words outside the online community.

Firstly, the application of Voyant enables us to examine the most frequent words in the whole corpus. It offers us an initial overview of the word frequencies in the corpus, with the purpose that we can further explore the connections between high-frequency words and our preset keywords and make preliminary analysis.

Secondly, we acknowledged the way how a few of our chosen keywords: abortion, sharia law and violence were connected to words in the corpus by reviewing the collocation graph. In Collocates Graph we notice Abortion-right/law, violence-sex and islam-protest are mostly linked. It also demonstrated the patterns in which some themes were connected together. This preliminary glance already provides us with a quick snapshot of the path our conclusions could lead to. Moreover, the graph introduced us to words which we used together so we could later on explore these more thoroughly by looking at their actual context.

Thirdly, by examining the trends of particular words in comparison to the actual thread and title, it reveals that most words were mentioned more in the title of the post. However, it

becomes far more complex if we involve the Bubblelines. Although words were more mentioned in the titles, their frequency was higher in the posts. This phenomenon indicates that some posts discuss the words more thoroughly where the titles could only mention them a few times over the whole corpus.

Fourthly, in order to have a more in-depth insight, we assessed the context of our words through Voyant's 'Keyword in Context' tool. We found out that a bunch of our themes were connected together. It was also interesting to find out that our words were mostly applied in the light of political opinions, discussion, the sharing of information and people's personal stories. Political events in the contemporary world seem to have an impact on the words used around our themes. For instance, Roe v Wade. More specifically, the Iranian protests seemed to be widely discussed on the subreddit and were connected to almost all of our themes.

Lastly, after we constructed an analysis of the words in our corpus, we applied our keywords in TensorFlow for a larger scale comparison. We found out that the word use on the subreddit was mainly with the emancipation of this group in mind. Surprisingly we realized that our themes were sometimes overlooked in the general world, not connected to women at all. Our words on the subreddit, however, were mostly used in the light of political discussions or personal stories that could fuel certain forms of feminist activism. This shows the ways certain words and themes get a layer of meaning when discussed in an (online) space dedicated to the emancipation of the group these themes are connected to. In the general world these words sometimes lose this exact meaning and show the subjectivity of their use. In an online community a whole vocabulary is created for users to express themselves.

Although our word analysis for the subreddit r/Feminism fails to provide a complete representation of actual feminist discourses in this subreddit as it is only narrowed down to some trends and a snapshot of the embedding of these words, still by inspecting word frequencies and embeddings with Voyant and TensorFlow, it gives us insight in the ways how certain words were used within discussions of certain themes regarding feminism. It enables us to draw some modest conclusions about the meaning of these words within an online community and the created vocabulary of its users to express themselves about the emancipation of women surrounding contemporary events.

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