**A Gender Conscious Analysis of Relationship Dilemmas Posted on Online Forums**

**STUDENT NAME: Sierra Walker**

**COURSE NAME:** Capstone Course

**DEPARTMENT:** Program in Media and Communications

**COURSE CODE:** MCOM 400

**PROFESSOR:** Jeremy Blatter

**DATE OF SUBMISSION:**  04/21/2024

# INTRODUCTION

This study aims to examine the effect of gender on interactions in online romantic advice forums on Reddit. Specifically, the effects of a submitter's gender on the interactions and type of interactions their posts create. The research is based on r/AmITheAsshole and r/RelationshipAdvice posts about relationship dilemmas.

This paper will address a gap in existing knowledge by combining multiple research foci into one study. There is significant research about the role of gender in relationship advice given by print media, particularly the gendering of advice columns, and some quantitative research about the broad effect of gender on online interactions. However, this research would effectively bridge the gap between these two topics by acknowledging and exploring their relationship to interpret the social system within online forums.

This research is important because it will show both if and how gender affects these interactions, while also demonstrating how new forms of media are affected by their ancestors, even if the user base doesn't overlap. The information provided by this research demonstrates important information about sociological influences on interactions concerning advice with other people via online media.

This research consisted of conducting content and textual analysis of posts and responses about relationship dilemmas to reveal quantitative data and apply metrics to linguistic evaluations. This data was used, with the consideration of social and historical contexts, to examine the way different genders may receive, give, and perceive relationship advice within the forum. Data was collected using Communalytic, cleaning the data to only include relevant posts and to group comments and replies with their corresponding submission, then analyzing the data to look at average sentiment and judgements to make conclusions about the type of interactions occurring.

LITERATURE REVIEW

This paper is about the relationship between gender and advice about relationships given in online advice forums. There is a particular focus on how gender influences the dynamics within r/AmITheAsshole posts about relationship dilemmas. This focus is studied, specifically, by exploring how the social and historical contexts affect how different genders receive, give, and perceive advice within the forum. To understand the study there must be discussions of questions about the historical and sociological contexts of advice forums and the culture and demographics of the subreddit. Then, the relationship between demographic data and textual analysis results from the forum can be examined.

Advice networks—a term that refers to where individuals receive their advice from, for the purposes of this study—evolved from being wholly interpersonal to also including impersonal communication sources. The availability of impersonal communication from mass media facilitated this transition from the first iterations of advice columns. Advice columns have long been associated with the romantic whims and dilemmas of women and girls (Lutes; Lulu and Alkaff; Bingham). However, as the internet has changed the way people consume and, more importantly, interact with media, advice columns have transformed into their modern form: advice forums. A social media platform that creates spaces for the most popular of these forums is Reddit. Within Reddit, the traditions of advice columns are carried on while introducing more user interactions and collaborations.

However, because advice columns and forums do not exist in a vacuum, they are significantly influenced by the social ideologies of their writers, collaborators, and consumers. Because of the highly gendered advice and targeted audience, these advice columns and forums are shaped by and enforce traditional gender roles and social perceptions of these roles.

While there is a significant amount of research about the way gender impacts both writers and readers of romantic advice columns and the demographics within Reddit, there is not significant research about the role gender plays within these interactions, beyond strictly numerical and quantitative data. This literature review gives information about existing research, while also demonstrating that this study fills a gap in research about this topic.

## Historical Background: From Columns to Forums

Despite popular connotations of advice columns with magazines from the late twentieth century, “men wrote advice columns as early as the seventeenth century” and there is evidence of medieval advice literature aimed at various demographics, showing that the genre of advice columns as a whole is not, and never was, exclusive to women (Lutes; Burge). However, it has been proposed that “women invented the modern form that achieved unparalleled popularity in the early twentieth century” which has since laid the groundwork for the popularization of online advice columns and forums (Lutes).

Advice columns began in “medieval Europe in the twelfth century. Yet, it was from the fourteenth century that a wide range of advice material began to circulate in the vernacular, largely in response to a growing urban, mercantile population” (Burge). Researchers say that “early advice, usually contained within multi-text manuscripts, focused on topics such as manners at the table, or the duties of boys in service” (Burge). As such, there are very few surviving texts from the beginnings of advice literature that are aimed specifically at women (Burge). Early versions of advice literature contain similar elements of modern literature, including casual language and proverbial expressions (Burge; Lutes; Bingham).

Researchers pinpoint a boom in advice literature during the late nineteenth century, in a large part due to new mass market publications, especially women’s magazines (Bingham). Bingham explains that while advice columns became regular additions to popular magazines after the First World War, “it was in the mid-1930s that the problem column became a central part of modern popular journalism.” Researchers agree that at this same time, advice columns became highly gendered (Burge; Lutes; Lulu and Alkaff; Bingham).

This boom called into question which type of social interaction advice giving is. The two types of social interaction are interpersonal— “social or personally oriented interaction or informal communication aimed at the creation of relationships among participants”—and impersonal— “task-oriented communication in which information is offered or requested” (Beuchot and Bullen). While certain in-person advice interactions could be categorized as impersonal—such as getting insight from a professional like a doctor, tutor, or salesperson—many interactions that end up giving advice are centrally interpersonal. Advice, especially romantic advice, has long had the connotation of private conversations with friends and family, where the goal is comradery, rather than strictly problem solving. Advice columns changed this notion, suddenly advice seekers were turning to authority figures for solutions and, thusly, engaging in impersonal interactions where they once had interpersonal interactions.

Researchers agree that, historically, within the genre of advice columns, different authors have maintained specific readership demographics. This specificity allowed authors to not only position themselves as authorities, but as in the lovelorn column subgenre, also generate a false sense of familiarity.

Historical research shows that, beginning with the first forms of advice literature, many of the writings, in the fourteenth century, were replacing or supplementary to advice and wisdom passed on from women. It is generally agreed that, at the time, societal structure shifted and “absent parents meant that ‘in urban households, mistresses and female employers played a central part in the upbringing of young women working within the household,” and the advice literature that was emerging sought to emulate this female voice (Burge). Researchers assert that, while advice columns covered a variety of topics, “reflecting shifting patterns of social interaction, later texts are more likely to focus on marriage and intimate relationships, in particular texts aimed at women” (Burge). As such, much of the literature was positioned to be consumed and internalized by primarily female audiences. Even later, during the turn of the twentieth century, this female voice took control of the genre in a striking resurgence that changed the public perception of advice columns as a whole. This change can be pinpointed by researchers as beginning with “Marie Manning’s 1898 debut as Beatrice Fairfax (“She will advise you on the troubles of your HEART”) in William Randolph Hearst’s New York Evening Journal” which is credited as the birth of the lovelorn genre (Lutes).

The deep gendering of these columns, researchers mention, means that “until recently, moreover, they have received little sustained attention from academics: as a ‘feminised’ and ‘nonpolitical’ form of popular culture, they have tended to be overlooked by historians, sociologists and media studies scholars” (Bingham). With recent research, which introduces nuance and validity to the columns, researchers are examining them with reference and acknowledgement of how societal views on gender affected the columns. Now, research agrees that lovelorn columns were strictly positioned to a female audience, utilizing strategies like first-person exchanges and “stylized emotional expression” to cement the pseudo-familiarity that allowed the genre to be so gendered (Lutes). The familiarity intended to mimic the natural forms of advice giving, where consumers could find comfort in the similarities to their previous interpersonal interactions in these highly impersonal interactions. With familiarity and positioning towards female audiences, the genre is said to have “helped to make possible and sometimes manifested— a modernist approach to intimacy” which is so prevalent in the environment that r/AmITheAsshole inhabits (Lutes). The lovelorn columns serve as a distant ancestor of the subreddit and still contribute to the enduring connection between women and romantic advice columns and forums.

With the advent of ‘Web 2.0,’ a phase of the internet that marked the shift to user generated content, a new frontier for advice networks appeared (Foster). Web 2.0 created an environment where anyone with access to the internet could become a participant in the media, rather than just a consumer. During this phase, forums and blogs made their place within advice networks. The internet has forums for countless topics, ranging from historical discussion and research to medical and educational advice to financial predictions (Foster; Morrow; Beuchot and Bullen; Healy).

While his focus is on the internet’s effect on specific academic workspaces, Foster makes important points that are universal to online forums. In his discussion of how forums are changing historical research, Foster makes this claim:

“Web 2.0 affects how people interact with one another, including how public historians and ordinary people connect with history. Online forums, blogs, portable devices, apps, mobile phones, tablets, social media and the other, countless array of digital platforms have facilitated a greater degree of ‘user engagement’, where anyone with access to the web is able to contribute to understandings about the past. Through these new avenues, ideas about history have also been able to span countries, cultures and languages and reach more people than ever before.”

Foster details aspects on online interaction that pinpoint the specific differences between interactions with online sources and printed mass media forms. Namely, the degree of ‘user engagement’ and the dissemination of ideas to larger audiences than before. As online forums popularized, advice networks expanded exponentially, opening new avenues for giving and receiving advice. Suddenly, anyone with access to the internet could search for or create posts about advice they needed. Complimentary to this, anyone with access to the internet could also provide advice to others. This uniquely challenged views of authority figures in advice networks, when people began to turn to anonymous authority figures rather than the ‘opinion leaders’ from reality as identified by Lazarsfeld’s Erie County study from the 1940s. ‘Shared authority,’ the notion that academics and professionals “would not simply distribute knowledge to the public, but would work together with ordinary people” became more prevalent with this shift (Foster).

In research about interactions on an online forum that focused on depression, Morrow says that:

“As advice is potentially threatening to the self-image of those who receive it, advice-givers use various discourse strategies to reduce this threat and to make the advice acceptable… Various discourse patterns can be identified in the texts, but the occurrence of many of them can be explained as arising from the special interpersonal needs associated with the discourse function of giving advice.

Texts are influenced by the context or setting in which they are produced. The texts used in this study are from an Internet discussion forum in which messages can be posted by anyone, anonymously. Those who interact with others in this setting do not know one another’s identities and know very little or nothing of one another’s backgrounds. In this way, interaction in the discussion forum is markedly different from casual conversations among friends or from therapeutic interactions in which interlocutors are acquainted with each other and know something of one another’s backgrounds.”

This analysis demonstrates how online forums must adapt to involve the interpersonal nature of advice focused interactions, while also maintaining the marked difference from traditional and interpersonal advice focused interactions.

Despite an abundance of advice sources on the internet, researchers maintain a focus on forums because of the insight it gives to social interaction. Forums marked a shift in advice giving interactions, specifically in the type of interaction that they are. Similar to the popularization of advice columns, the introduction of the forum to advice networks meant that impersonal interactions entered many people’s advice networks. The illusion of familiarity and interpersonality that advice columnists so carefully crafted is maintained and created nearly on accident by forums. In columns, this illusion is perhaps the greatest reminder to academics that these were manufactured interactions. Research reflected on the writing and editing of these columns, including scandals that imply that the questions from the audience were actually fabricated and how writers specifically chose the voice of their persona (Lutes). The false familiarity is an implication of how distinctly impersonal these interactions actually are.

Conversely, forums create the same illusion of familiarity by blurring the lines between impersonal and interpersonal interactions. While forums, with their relatively scripted interactions, are impersonal at their core—advice seekers participate to receive information, while advice givers participate to offer information, the direct definition of impersonal interaction— online interaction with other users generally leads to interpersonality.

## Online Advice Forums: Culture, Demographics, and Their Position in Advice Networks

As the natural evolution from printed advice columns occurred, researchers focused on exploring the specifics of online interaction through sociological lenses. Particularly, research focused on changes to interaction that accompanied this evolution—as mentioned in the previous section— as well as the specific cultures of online forums and demographics of those involved in these interactions (research for both focuses include studies by: Foster; Morrow; Beuchot and Bullen; Kellaway and Kogan; Cannon et al.; Collisson et al.; Attwood et al.).

The cultures of online forums for advice seekers mean that interactions generally follow a prescriptive convention (Morrow). Previous research has classified posts to online forums “into three types: *problem messages*, *advice messages* and *thanks messages*,” each of which fall into two main discourse functions: describing problems and giving advice (Morrow). This prescriptive convention requires an initial problem message before “advice-giving can occur as the second part of an interaction sequence,” while this is not always the case in face-to-face advice-giving interactions (Morrow).

While these somewhat scripted interactions act as a barrier between users and interpersonality, forums adapted to include conventions that produce familiarity between users. A major contribution to familiarity is basic demographic—usually age and gender— information that many websites especially forums, encourage users to share from behind the curtain of anonymity provided by online interaction (Collisson et al.).

An unintended consequence of this is that the internet, especially websites with certain posting conventions, provides access to demographic information about media consumers that was previously harder to acquire. While demographic information collected by companies, whether in print or online, is maintained and protected by the company, users can be persuaded to provide their demographic information to the public. Thus, on forums like those found on Reddit, researchers are privy to self-reported demographic information without needing reports on consumers from media companies.

Reddit is “a popular social news and discussion site founded in 2005, [that] hosts over 4,000 topical forums, or subreddits, each with its own rules, conventions, participants, and moderation team” (Cannon et al.). However, despite the wide range of subreddits, “male users outnumber female users on Reddit by about 2:1,” in general (Cannon et al.).

Due to its culture and conventions of posting, Reddit is known to be an open space for advice seekers. Researchers say people may use Reddit as a modern version of lovelorn columns because they are already active users “or they may like the relative anonymity of sites like Reddit, which has a number of moderated sub topics where users can ask questions, seek advice and share experiences” (Attwood et al.). Furthermore, because Reddit advice forums are a form of crowdsourced responses, it is thought that they allow young people “to create or curate their own educational spaces around sex and relationships, describing personal experiences, creating and sharing memes featuring sexual and/or sex educational content, or building activism on sexuality and genders” (Attwood et al.). Through these spaces, they are able to create their own opinions on matters based on material presented to them by their peers that are different from each other and even contradictory (Attwood et al.).

On Reddit, users can post under various subreddits in which, conventionally, they “provide the age and gender of themselves and their partner. Afterwards, other people can read, comment, and “upvote” comments that they agree with” (Collisson et al.). Researchers say that, “thus, Reddit seems to be an ideal source of real-world, dyadic data from people seeking and offering relationship advice” (Collisson et al.). Advice forums on Reddit, such as

“r/AmItheAsshole(2.4 million subscribers), offer semi-structured discussions around social interactions that also reflect – and contribute to – discourse off the site, as posts are shared and discussed widely on other social platforms (like Twitter). These forums provide posters with an opportunity to provide a uniquely high level of personal disclosure while remaining anonymous”(Cannon et al.).

In “r/AmITheAsshole—an English-language subreddit on Reddit… users can anonymously share their personal experiences (i.e., first person narratives) of a particular event or series of events they have been blamed for or believe they should be blamed for” (Giorgi et al.). Then other users can comment on whether they think they are in the wrong (you’re the asshole, YTA), the other parties involved are at fault (not the asshole, NTA), or multiple people are to blame (everyone sucks here, ESH). These users can include reasoning behind their judgement or leave it as is, and, in some scenarios, ask for more information about the scenario.

According to research by Cannon, most users within subreddits like r/AmITheAsshole are between 20 and 40 years old and have a relatively even split between men and women. This is because “we believe the demographics are more evenly split on advice subreddits because they appear to be more popular with women”(Cannon et al.). Furthermore, in research on the demographics within the subreddit results show a gender imbalance in judgements (De Candia et al.).

## Romance and Advice Columns

As with most of the media, researchers agree that advice columns have been and are “associated with ‘bad’ effects on young people (see for example, Eyal and Kunkel 2008; Brown and Bobkowski 2011) in contrast to the ‘good’ knowledge represented by the more informational and educational formats used for giving advice” (Attwood et al.). However, especially after the advent of community-sourced advice forums on the internet, people often seek out advice and knowledge about romantic and sexual relationships from the media rather than going to educationally, medically, or therapeutically trained individuals.

According to researchers, advice columns act as a form of media where people “seek out other resources to supplement the education they receive in school, especially to cover topics which are absent or underdeveloped in the formal sex education curriculum” (Carr). Within advice columns, readers can educate themselves on a variety of topics, including sex education and healthy romantic relationships. Some research also asserts that, this education also highlights perceptions of ‘normality’ within society, serving as a force to detail, enforce, and influence social norms (Carr).

It is necessary to highlight that while it is agreed that advice columns and forums generally have the “modernist approach to intimacy” burgeoned by lovelorn columns, some researchers also think they also promote “aspects of life important to a (middle-class, white, western) idea of romance” (Lutes; Burge). This includes projecting largely heteronormative views and traditional gender roles on the audience and advice seekers. In the environment of print advice columns, “happily asexual or celibate relationships are not considered, and there are only occasional tokenistic references to lesbian, gay or bisexual people, or to forms of open non-monogamy” (Attwood et al.).

## The Influence of Gender on Advice Networks

Since, according to research, the primary readership of many popular romantic advice columns and forums have been and are women, it is unsurprising that ideas about traditional gender roles are frequently discussed and perpetuated in these mediums. Within these columns and forums, “the kind of advice given in modern relationship texts accords with what [P.] Johnson calls the ‘sex-love model’ that regulates sexual encounters” (Burge). This model, put forth and supported by researchers, explores how the perception of love, or lack thereof, frames the social acceptance of a sexual encounter. However, “Johnson notes that this discourse is deeply gendered, producing particular feminine and masculine forms of sexual expression that are defined by varying levels of appropriateness (2005)” (Burge).

Furthermore, research supports the concept that ,traditionally, lovelorn “advice columns were embedded in a translocal, gendered space—the woman’s page— that relied on a gender binary for coherence and meaning” (Lutes). More recently, as of 2004, “two of the most popular magazines read by college students [*Cosmopolitan* and *Maxim*] still endorse and promote traditional gender stereotypes” and “the media still reinforces the notion that women engage in relationships for emotional fulfillment and that men engage in relationships for sexual fulfillment” (Kellaway and Kogan).

In advice columns and forums, gender roles and perceptions about what is romantically and sexually appropriate based on gender play a massive role in the responses advice seekers receive. So, despite being a space that has contributed to the emergence of modern perceptions of intimacy, romantic advice columns and forums are governed by and perpetuate social perceptions of traditional gender roles.

## Discussion and Evaluation

In the research presented above, there is significant scholarship about the influence and complexities of gender on the construction of and environment cultivated by romance-focused advice columns. This research explores the complexities presented by being a perpetrator of traditional gender norms and a safe space for women and girls exploring and changing their ideas about sexuality and romance. Much of the research also acknowledges that, because of the historical positioning of these columns to women, it is impossible to separate these columns from the impacts of societal views of gender.

Then, as online forums became an increasingly popular alternative to traditionally printed advice columns, research on the demographics of sites such as Reddit emerged. This research provides quantitative analysis of public perceptions of advice seekers and givers, sometimes involving demographic factors such as their age and gender. However, unlike the research about traditional advice columns, most of this scholarship does not dive into the complexities presented by the historical and social context of romance columns and gender. In some of the studies, such as Cannon’s, they acknowledge that analyzing the social factors at play, based on both culture and gender, go beyond the scope of their research. Nevertheless, there is not any significant scholarly research that uses strategies from research about traditional columns to analyze the significant effects of gender on the culture and environment within online forums where users seek out romantic advice, like r/AmITheAsshole. Furthermore, some research focused on the types of interactions on online forums, exploring the text-based interactions with a sociological lens to determine their functions. However, this research is very limited and does not introduce demographic factors into their evaluations of interaction. This research also tends to explore different types of forums than those that researchers have explored the demographic data of.

## Conclusion: Research Question and Significance

After evaluating the knowledge gaps left by the scholarship analyzed in this literature review, it is apparent that conducting a clearly gender conscious analysis of relationship dilemmas on r/AmITheAsshole would provide insight into the social environments present in modern advice forums. This research would answer the research questions: How does gender influence the dynamics between advice seekers and commenters on posts about romantic issues on r/AmITheAsshole? Specifically, are ethical judgements and the rates and types of interpersonal communication related to the gender of posters? These research questions introduce more complex analysis of demographics within the forum, which has not been done before. In this situation, adding complexity to an analysis is necessary and significant because, as shown through the research on advice columns, gender greatly impacts the culture and dynamics of these spaces.

# METHODS SECTION

During this research, I carried out thorough content and textual analysis of posts collected from two subreddits: r/AmITheAsshole and r/RelationshipAdvice. By using content and textual analysis, it was possible to explore both qualitative and quantitative aspects of the data. Specifically, this method allowed for the collection and synthesis of quantitative aspects of the data such as statistical information concerning the sentiments, demographics, consensus of the public, and word usage within the posts while also allowing for the qualitative analysis of interactions, tone, and framing of the posts.

To collect a robust data set, I used Communalytic, a platform that collects and completes sentiment analysis of social media posts, to scrape posts from the subreddits over the course of multiple days. During these days, I collected the most recent 200 submissions, and their corresponding comments and replies, from each subreddit.

After collection, Communalytic also completed the initial process of textual and content analysis. The program is able to generate metrics on the sentiment and toxicity, by running posts (submissions, comments, and replies) through two modules. Communalytic’s “AI-powered toxicity analysis module [is] designed to identify toxic and anti-social interactions in online discourse”(Communalytic). Their sentiment analysis is “a lexicon and rule-based sentiment analysis module designed to detect the polarity of text in a dataset” (Communalytic). These two analysis modules give quantitative values for relative measures of emotion. By performing analysis using these modules, it was possible to evaluate the overall sentiment and toxicity of submissions and their replies, without bias or personal interpretation.

When collected and run through the modules, Communalytic provides a downloadable Excel file that I used to further analyze the data. The file shows each post as a row of data, providing the following column headings:

*Note that the pertinent headings are defined using adapted versions of Communalytic’s definitions* (“Reddit Data Structure”)

|  |  |
| --- | --- |
| **id** | Unique identifier for the post |
| **date** | The date when the post was created/updated |
| **author** | Poster’s unique username |
| **title** | Submission title. In the case of each of the subreddits in this research, standard convention has submitters give a brief overview of their dilemma in the title |
| **text** | The complete text of the main body of the post |
| **comment\_on** | Unique identifier of the parent post; Note: only available for Comment- and Reply-type posts |
| **type** | Post type; Possible values are: Submission = a thread starting post, Comment = a reply to a submission, Reply = a reply to a comment or to another reply |
| **Toxicity** | The numeric value given to the post by the toxicity analysis |
| **textblob\_polarity** | The numeric value given to the post through sentiment analysis (using the textblob library) |
| **Other headings include:** score, upvote\_ratio, url, permalink, user\_flair, submission\_flair, Severe Toxicity, Profanity, Identity Attack, Insult, Threat, vader\_sentiment\_positive, vader\_sentiment\_neutral, vader\_sentiment\_negative, vader\_sentiment\_compound, RuSentiment\_positive, RuSentiment\_neutral, and RuSentiment\_negative | |

To narrow down the downloaded data to relevant posts, I read through and eliminated the posts if they did not fit certain criteria. The criteria were that the post listed the poster’s gender and age, while focusing on an interpersonal dilemma concerning romance or a romantic relationship. During this process, I categorized posts by information such as the gender of the poster, the consensus in the comments, and the sub-topic of the post.

I created a final workbook with only the relevant data to carry out a complete analysis. In this workbook, each data set has a sheet (labelled by the forum and date of collection) and there are multiple sheets for complete analyses. When transferring data to this workbook, comments and replies were paired with each relevant submission by searching the id of the submission in “comment\_on,” then searching for each of the subsequent ids of the comments and replies that appeared in this search. Once all of the comments and replies were grouped with the correct submission, the data cleaning process was complete and analysis could be performed. A list of each heading and location in the data set is in the appendix underTable 1***.***

To carry out analysis, various operations were run on each submission and corresponding comments and replies. A list of the heading location, the name given to the operations performed on submission groups, the main function run, an example of a formula, and a brief explanation of why they were run is in the appendix ***under Table 2.***

Once these analyses were complete, greater analysis on the entirety of the datasets could be carried out. All analyses had four components: the value for all submission groups and the values separated by the submitter’s gender, where the only posts where the submitter self-identified with the corresponding gender were involved in the analysis. These components were labelled “All,” “M” for male, “F” for female, and “NB” for nonbinary.

The analyses evaluated the average number of comments and replies on a submission, the total number of submission groups that fit in different categories, and the percentage of the total submission groups that each of these categories made up. The categories included groups with interaction from the submitter, toxicity, sentiment alignment, and the judgement of the public for posts from r/AmITheAsshole. The name given to the operations performed, the main function run, and a brief explanation of why they were run is in the appendix ***under Table 3.*** The formulas for each operation are in the appendix under ***Tables 4-8.*** The same analyses were run for each sheet, all posts separated by subreddit, and the whole dataset.

Textual and content analysis was the most effective way to evaluate and research this topic because it allowed for a significant amount of information to be evaluated in concrete, quantitative ways (through digital methods like Communalytic and statistical analysis of researcher-input data), while also ensuring that the data is available to be looked at and read closely. By leaving the data available, qualitative textual and content analysis that mirrors the analysis present in past studies about print advice columns that has provided important insights into the topic can be conducted.

It is important to note that for ethical reasons, usernames and other identifying information were scrubbed from the data, in order to respect the privacy of the posters. This included removing the columns that contained any identifying information, as noted in ***Table 1*** in the appendix. This was done as an extra measure, even though many posts on r/AmITheAsshole are posted with “throwaway” (accounts created to only be used for a single post) and fake names. Furthermore, all posts and comments will be treated as individual entities and specific users were not be looked at specifically within the subreddit, the platform as a whole, or across social media platforms.

# 

# 

# 

# FINDINGS

Following these methods, a collection of 250 submission groups that had applicable topics and listed the poster’s gender were collected. Of the 250 groups, 29 did not have comments or replies, leaving 221 viable groups for analysis. From now on, this set of 221 submission groups is considered the dataset. Within the dataset, there were more submissions from r/RelationshipAdvice than r/AmITheAsshole and more submissions from women than men. Detailed breakdowns are given in Fig. 2, Fig. 3, and Fig. 4.

*Figure 1:* Breakdown of all submissions based on submitter’s gender and presence of comments and replies

*Figure 2:* Breakdown of r/RelationshipAdvice submissions based on submitter’s gender and presence of comments and replies

*Figure 3:* Breakdown of r/AmITheAsshole submissions based on submitter’s gender and presence of comments and replies

Furthermore, of the submissions with comments, submissions averaged 50.31 comments and replies, with 8.8% of those being submitter replies to comments. However, these averages varied greatly with the submitter’s gender. Male submitters averaged 85.35 comments and replies, with 4.7% of them being submitter replies. Conversely, female submitters averaged only 23.67 comments and replies, but 19.8% of them were submitter replies.

In the dataset, submission groups with at least one submitter reply were considered to have interaction. 107 groups had interaction—48.4% of groups with comments and replies— of which 47 groups had male submitters and 60 had female submitters. This means that regardless of gender, there was interaction in at least 40% of groups.

Another measure of interaction was sentiment and toxicity. Using Communalytic’s textblob sentiment analysis, values of greater than 0.05 are considered positive, values less than -0.05 are considered negative, and values between -0.05 and 0.05 are considered neutral. The dataset had a majority of groups with positive sentiment, as seen in Fig. 5. There were 146 total groups, made of 53 from male submitters and 92 from female submitters. There were significantly fewer groups with negative and neutral sentiments. In the dataset, only 5.8% of groups had negative sentiments and 28% had neutral sentiments. Similarly, the toxicity analysis reflected that the groups were generally positive, with only 10 groups scoring above 0.3—the value Communalytic designates as indicatory of toxicity.

*Figure 4*: Sentiment analysis of submission groups, separated by submitter's gender

The final measure taken from the dataset was the judgement left on posts in r/AmITheAsshole, Fig. 6. Most submitters were voted NTA by commenters, followed by YTA, then ESH. It should be noted that only one group had to be omitted because no commenters left a judgement. Furthermore, female submitters were voted NTA 67.4% of the time, while male submitters were voted NTA 57.1% of the time.

*Figure 5:* Judgements left on posts from r/AmITheAsshole, separated by gender

# DISCUSSION OF FINDINGS

Based on analysis of the dataset, gender has some effect on interpersonal communications within advice forums. While gender does not affect all aspects of interpersonal communications in this medium, there is evidence to show a relationship between gender and interpersonality levels, types of interpersonality, and ethical judgements from the public.

## Interpersonality and Interaction

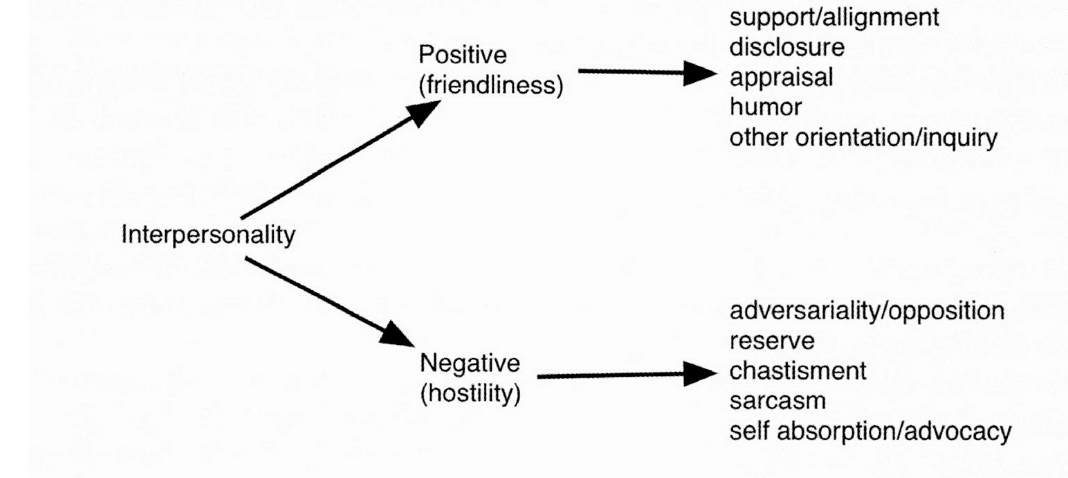
The data shows that, regardless of gender, large amounts of submitters use the platforms analyzed for interpersonal interactions, rather than impersonal communication. The first way this study aims to quantify interpersonal interaction is by counting the number of replies posted by submitters. This is an appropriate measure of interpersonality because impersonal interactions are generally two step processes and do not include any reply from the original speaker or poster. In impersonal interactions, where the creation of relationships is ignored in favor of focusing on tasks, submitter replies would be unnecessary. However, in this research, submitter replies generally thank commenters for their advice or clarify the situation so that commenters view the submitter in a positive manner. This focus on following polite social conventions and the interest in conserving a positive image demonstrates that submitter replies are indicators of the social or personal orientation of the interaction. Therefore, the existence of submitter replies serve as an indicator of interpersonal interaction.

Researchers say that text-based communication “does permit high levels of interpersonal communication… Some have even suggested that text-based [computer-mediated communication] can foster higher levels of interpersonality than face-to-face communication” (Beuchot and Bullen). Submitter reply rates from the data in this study support this finding, as over 40% of submitters engaged in conversation with commenters on their posts. While this did not make up the majority of submitters, it is higher than would be expected in a forum directly asking for a response, where there is no expectation for interpersonal interaction.

While there does not appear to be a difference in the probability of a submitter to engage in interpersonal interaction based on gender, the amount of interaction does appear to differ. As previously stated, female submitters contribute 19.8% of comments and replies to their posts, while male submitters contribute just 4.7% of comments and replies. On average, this translates to 5.1 female submitter replies and 4.7 male submitter replies. This shows that, on average, women tend to engage more often during their interpersonal interactions. This is also true while female submitters, on average, receive significantly fewer comments and replies. This is significant because it demonstrates that female submitters consistently engage in interpersonal interactions, even if there are fewer commenters to interact with. Furthermore, because of the conventions of the forums, it is reasonable to believe that some submitter replies are direct answers to questions, which are more often posted in submission groups with a large number of comments and replies. This means that it could be further researched as to whether all of the replies, especially those from male submitters who are likely to garner more comments and replies, are genuinely cases of interpersonal interaction or merely supplying more information.

Furthermore, interpersonal interactions can be positive or negative, while impersonal interactions can only have differences in valence (Beuchot and Bullen). Impersonal valency indicates which part of an interaction is occurring, Beuchot and Bullen claim positive valency is consistent with informing/ offering, while negative valency is indicatory of asking/ requesting. However, Beuchot and Bullen describe positive (friendly) and negative (hostile) interpersonal interactions through a variety of social markers, as shown in Fig. 6.

*Figure 6:* Recreation of the first half of “Figure 1. Dimensions for analyzing interpersonality in CMC (Beuchot, 2002)” (Beuchot and Bullen)

****

Through the sentiment and toxicity analysis, the data once again reflected that large amounts of users are on the forums for interpersonal interactions. Based on Beuchot and Bullen’s explanation that only interpersonal interactions can also be measured by positivity and negativity, an interaction that has any non-neutral sentiment or any toxicity, should be considered interpersonal and not impersonal. With this reasoning, sentiment and toxicity analysis can be used as a marker of interpersonal interaction and can place an interaction into positive or negative typologies.

When measured by sentiment analysis, 94.6% of the groups have non-neutral sentiments. This implies that not only are the vast majority of groups environments where interpersonal interaction occurs, but also that there can be interpersonal interaction without engagement or interaction from the poster. This means that not only do submitters go to these forums for social engagement, but commenters do as well, indicating, yet again that these forums produce important interactions for all users.

Furthermore, interpersonality as measured through sentiment occurs at similar levels regardless of gender. However, the type of interpersonal interaction is greatly affected by gender. Particularly, by both sentiment and toxicity measures, male submitters are more likely to have a submission group engaging in negative interactions than women are. This is demonstrated by the variance among the percent of groups with negative sentiments, 7.1% and 4% for male and female submitters, respectively, and considered toxic, 4.7% and 4.4%, respectively. This comparison shows that there is a slight tendency of favoring female submitters within the forums, since they have fewer negative interactions.

## Ethical Judgements

Previous research about demographics and ethical judgements in r/AmITheAsshole said

“Results show a gender imbalance in the judgments of the community: male authors receive negative (i.e., deviant) judgements with a 62% higher likelihood. Additionally, older authors also have a higher chance of receiving negative judgements, 21% more for people 28 or older (compared to people 18 or younger). However, this effect is non-linear, and shows that authors in the age bracket 22-23 receive the most favorable treatment, and are 19% more likely to receive a positive judgement. Male and older (≥ 28) authors also receive more split judgements (+26% and +22%, respectively), which indicates a higher level of controversy associated to the situations described by them, and the involved social norms”(De Candia et al.).

The dataset reflects these same results, showing that female submitters receive more favorable judgements than men within r/AmITheAsshole. Similar to the data collected by De Candida, this dataset shows that men are more likely to receive YTA judgements than women. This dataset described 40% of male submitters as “Assholes,” compared to only 26.1% of female submitters. This shows that this data reflects the same findings as previous studies, in addition to providing insight into the types and rates of interaction.

Interestingly, the data from submission groups posted to r/AmITheAsshole showed no relationship between negative sentiment and negative ethical judgements. Furthermore, none of the submissions judged “YTA,” had a negative group sentiment, showing that most negative sentiment was towards the other people involved in the situation, rather than the submitter. This reinforces the idea that even when users are explicitly invited to express ethical judgements about the submitter, they are engaging in the behavior for interpersonal reasons. If this was not the case, then that the type of interpersonal reaction would be less sympathetic to the submitter, since sympathy is not a part of impersonal communication.

# CONCLUSION

Text-based advice forums display a unique conflict between what should theoretically be impersonal interactions but are interpersonal interactions in practice. This conflict means researchers can look into how outside sociological factors impact both types of interaction in the same location, sometimes within the same interaction.

This research aimed to answer whether gender influenced dynamics within forums for romantic relationship advice. Specifically, whether the gender of a poster effected the ethical judgements of others or the rate and type of interaction their posts generate. The data shows that gender does influence the dynamics within these forums, in the ethical judgements and rate and type of interaction that posts generate.

The study examined the prevalence of interpersonal interactions in forums and highlighted the effects of gender on these interactions. Two measures were used to evaluate the rate of interpersonal interaction by taking into account the complete definition of interpersonality. In particular, submitter replies measured the presence of social focus and sentiments measured the existence of emotional valence in the interactions. Both social focus and emotional valence are integral identifiers of interpersonality and differentiate interpersonal interaction from impersonal interaction.

Both measures show that the data supports previous research that claims that text-based interactions allow for interpersonal interaction. Furthermore, both measures demonstrate that while gender does not influence the rate of interpersonal interaction, they do significantly affect the emotional valence and the amount of interpersonal interaction. Data about submitter replies revealed that women engage in interpersonal interactions at the same rate as men, but have higher amounts of interaction when they engage in these interactions. Data about the sentiment of submission groups showed that the rate of high levels of emotional valence does not differ based on the submitters gender, but that male submission groups are more likely to have negative or toxic sentiments.

This study also reinforces previous research that asserts that female submitters are less likely to receive negative ethical judgements—be voted “YTA”—on r/AmITheAsshole. The data from this research also adds that negative sentiment is not significantly related to negative ethical judgements.

However, this research is limited by the number of posts analyzed. It is also limited because using this method and that Communalytic does not allow users to specify a time period to analyze posts from, means that the submission groups most likely do not include all of the comments and replies that a post will garner. It is possible that the data analyzed would be different with all of these comments and replies than what was downloaded using Communalytic. Furthermore, since ages, genders, and topics were manually input, there is also a slight possibility of user error, resulting in some of the data being miscategorized.

This research could be expanded by applying the same analysis onto a larger dataset. It could also be explored whether the topic within the advice forum affects any of the metrics discussed. Similarly, future research could explore whether the gender of the person involved effected the metrics discussed. Research about online forums and interactions could also explore the effect of gender on the category of interactions as defined by Beuchot and Bullen. The researchers explain that they break interactions into different categories:

“Active, reactive, or interactive. Interaction is *active* when it does not refer to other messages. Interaction is *reactive* when it refers implicitly or explicitly to a message posted immediately before the reactive message. What distinguishes *interactive* interaction from active or reactive interaction is ‘the extent to which messages in a sequence relate to each other, and especially the extent to which later messages recount the relatedness of earlier messages’ (Rafaeli & Sudweeks, 1998, p. 175). Interactivity thus requires a thread of messages, or a chain of interrelated messages, while reactivity can be assimilated to one-way feedback. Thus, interactivity expresses the degree to which ‘interaction transcends mere reaction’ (Berthold, Sudweeks, Newton, & Coyne, 1998, p. 191). Interaction in its three dimensions (active, reactive, interactive), together with interpersonality is a pivotal measure of the social dynamics of group communication” (Beuchot and Bullen).

Beuchot and Bullen use these categories of interpersonal interaction to evaluate the quality of interaction and dynamics in educational online discussion forums, however this method of categorization could be applied to indicate interaction quality and dynamics in other contexts. Future research could read individual comments to label category of interaction they are and see if there is any relationship between category, gender, and sentiment.

# REFERENCES

Attwood, Feona, et al. “Sense about Sex: Media, Sex Advice, Education and Learning.” *Sex Education*, vol. 15, no. 5, Sept. 2015, pp. 528–39. *DOI.org (Crossref)*, https://doi.org/10.1080/14681811.2015.1057635.

Beuchot, Alberto, and Mark Bullen. “Interaction and Interpersonality in Online Discussion Forums.” *Distance Education*, vol. 26, no. 1, May 2005, pp. 67–87.

Bingham, Adrian. “Newspaper Problem Pages and British Sexual Culture Since 1918.” *Media History*, vol. 18, no. 1, Feb. 2012, pp. 51–63. *EBSCOhost*, https://doi.org/10.1080/13688804.2011.632187.

Burge, Amy. “The Rough Guide to Love: Romance, History and Sexualization in Gendered Relationship Advice.” *Journal of Gender Studies*, vol. 27, no. 6, Aug. 2018, pp. 649–60. *ProQuest*, https://doi.org/10.1080/09589236.2017.1287065.

Cannon, Emily, et al. *“Don’t Downvote A$$$s!!”: An Exploration of Reddit’s Advice Communities*. arXiv:2109.09044, arXiv, 18 Sept. 2021. *arXiv.org*, http://arxiv.org/abs/2109.09044.

Carr, Georgia. “‘Is This Normal?’: Examining Sex Education in a Corpus of Magazine Advice Columns.” *Australian Review of Applied Linguistics*, vol. 43, no. 2, 2020, pp. 145–68. *ProQuest*, https://doi.org/10.1075/aral.00030.car.

Collisson, Brian, et al. “‘Should I Break Up or Make Up?’ A Text Analysis of Online Relationship Advice.” *North American Journal of Psychology*, vol. 20, no. 2, June 2018, pp. 301–10.

Communalytic. “Home.” *Communalytic*, https://communalytic.org/. Accessed 1 Apr. 2024.

De Candia, Sara, et al. “Social Norms on Reddit: A Demographic Analysis.” *14th ACM Web Science Conference 2022*, ACM, 2022, pp. 139–47. *DOI.org (Crossref)*, https://doi.org/10.1145/3501247.3531549.

Foster, Meg. “Online and Plugged In?: Public History and Historians in the Digital Age.” *Public History Review*, vol. 21, Dec. 2014, pp. 1–19. *DOI.org (Crossref)*, https://doi.org/10.5130/phrj.v21i0.4295.

Giorgi, Salvatore, et al. *Author as Character and Narrator: Deconstructing Personal Narratives from the r/AmITheAsshole Reddit Community*. arXiv:2301.08104, arXiv, 19 Jan. 2023. *arXiv.org*, http://arxiv.org/abs/2301.08104.

Healy, Kieran. “The Performativity of Networks.” *European Journal of Sociology / Archives Européennes de Sociologie / Europäisches Archiv Für Soziologie*, vol. 56, no. 2, 2015, pp. 175–205.

Kellaway, Julie A., and Lori R. Kogan. “Relationship Advice Columns from Two Popular Magazines: Implications for Therapy with Women, Men and Heterosexual Couples.” *Journal of College Student Psychotherapy*, vol. 19, no. 1, 2004, pp. 35–55.

Lulu, Reem Adib, and Sharifah Nurul Huda Alkaff. “A Cross-Cultural Study of Persuasive Strategies in Relationship Advice Articles in Women’s Magazines.” *Gema Online Journal of Language Studies*, vol. 19, no. 2, May 2019. *ProQuest*, https://doi.org/10.17576/gema-2019-1902-02.

Lutes, Jean M. “Lovelorn Columns: A Genre Scorned.” *American Literature: A Journal of Literary History, Criticism and Bibliography*, vol. 91, no. 1, Mar. 2019, p. 59. *ProQuest*, https://doi.org/10.1215/00029831-7335349.

Morrow, Phillip R. “Telling about Problems and Giving Advice in an Internet Discussion Forum: Some Discourse Features.” *Discourse Studies*, vol. 8, no. 4, Aug. 2006, pp. 531–48. *SAGE Journals*, https://doi.org/10.1177/1461445606061876.

“Reddit Data Structure.” *Communalytic*, 11 Nov. 2021, https://communalytic.org/tutorials/reddit-data-structure/.

# APPENDIX

Link to GitHub Repository with the datasheet: <https://github.com/sierradwalker/RedditandGender>

*Table 1:* Column heading names

|  |  |  |
| --- | --- | --- |
| Column | Name | Notes |
| A | id |  |
| B | date |  |
| C | author | Removed after analysis is complete |
| D | title |  |
| E | topic | Manual input |
| F | gender of poster | Manual input |
| G | age of poster | Manual input |
| H | gender of involved | Manual input |
| I | age of involved | Manual input |
| J | text |  |
| K | comment\_on |  |
| L | type |  |
| M | score |  |
| N | upvote\_ratio |  |
| O | url | Removed after analysis is complete |
| P | permalink | Removed after analysis is complete |
| Q | user\_flair | Removed after analysis is complete |
| R | submission\_flair |  |
| S | Toxicity |  |
| T | Severe Toxicity |  |
| U | Profanity |  |
| V | Identity Attack |  |
| W | Insult |  |
| X | Threat |  |
| Y | textblob\_polarity |  |
| Z | vader\_sentiment\_positive |  |
| AA | vader\_sentiment\_neutral |  |
| AB | vader\_sentiment\_negative |  |
| AC | vader\_sentiment\_compound |  |
| AD | RuSentiment\_positive |  |
| AE | RuSentiment\_neutral |  |
| AF | RuSentiment\_negative |  |

*Table 2:* Analyses run on submission groups

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Column | Name | Explanation | Function | Example formula |
| AH | Comments and Replies | Give a total number of posts associated with the submission | SUM | =SUM(AI27:AJ27) |
| AI | Comments | Give a total number of comments associated with the submission | COUNTIF | =COUNTIF(L27:L41,"Comment") |
| AJ | Replies | Give a total number of replies associated with the submission | COUNTIF | =COUNTIF(L27:L41,"Reply") |
| AK | Submitter Replies | Give a total number of posts associated with the submission that were posted by the submitter | COUNTIF | =COUNTIF(C28:C41, C27) |
| AM | Toxicity Avg | Give an average of the toxicity value of the posts associated with the submission | AVERAGE | =AVERAGE(S27:S41) |
| AN | Sentiment Avg | Give an average of the sentiment value of the posts associated with the submission | AVERAGE | =AVERAGE(Y27:Y41) |
| AO | NTA | Give a total number of posts that said the submitter was not the asshole | SUM, COUNTIF | =SUM(COUNTIF(J28:J41, {"\*NTA\*","\*YWNBTA\*"})) |
| AP | YTA | Give a total number of posts that said the submitter was the asshole | SUM, COUNTIF | =SUM(COUNTIF(J28:J41, {"\*YTA\*","\*YWBTA\*"})) |
| AQ | ESH | Give a total number of posts that said “ESH” about the submission | SUM, COUNTIF | =COUNTIF(J28:J41, "\*ESH\*") |
| AR | Judgement | Label the post with the most popular judgement | IF | =IF(AO27>AP27,(IF(AO27>AQ27,"NTA","YTA")),IF(AP27>AQ27,"YTA","ESH")) |

*Table 3:* Explanation of summary analyses

|  |  |  |
| --- | --- | --- |
| Parent analysis, Name | Explanation | Function |
| Percentage | Gives the percentage of the prior value out of the relevant data | Division |
| Averages, Comments and Replies | An average of the number of posts associated with the submission | AVERAGE |
| Averages, Comments | An average of the number of comments associated with the submission | AVERAGE |
| Averages, Replies | An average of the number of replies associated with the submission | AVERAGE |
| Averages, Submitter replies | An average of the number of replies posted by the submitter associated with the submission | AVERAGE |
| Totals, All | The total number of submission groups | COUNTIF |
| Totals, With Comments/ Replies | The total number of submission groups that contains comments or replies | COUNTIF |
| Totals, With Interaction | The total number of submission groups that contains comments or replies posted by the submitter | COUNTIF |
| Sentiment, Average | The average sentiment value | AVERAGE |
| Sentiment, positive | The total number of submission groups that have a positive sentiment value (defined as greater than 0.05) | COUNTIF |
| Sentiment, negative | The total number of submission groups that have a negative sentiment value (defined as less than  -0.05) | COUNTIF |
| Sentiment, neutral | The total number of submission groups that have a neutral sentiment value (defined as between  -0.05 and 0.05) | COUNTIF |
| Toxicity, Average | The average toxicity value | AVERAGE |
| Toxicity, Total toxic | The total number of submission groups are designated as toxic by their toxicity value (defined as greater than 0.3) | COUNTIF |
| Judgement, ESH | The total number of submission groups that have a judgement of ESH (Only applicable to submissions posted to r/AmITheAsshole) | COUNTIF |
| Judgement, YTA | The total number of submission groups that have a judgement of YTA (Only applicable to submissions posted to r/AmITheAsshole) | COUNTIF |
| Judgement, NTA | The total number of submission groups that have a judgement of NTA (Only applicable to submissions posted to r/AmITheAsshole) | COUNTIF |

*Table 4:* Formulas of summary analyses of averages

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Comments and replies | Comments | Replies | Submitter Replies |
| All | =AVERAGE(AH:AH) | =AVERAGE(AI:AI) | =AVERAGE(AJ:AJ) | =AVERAGE(AK:AK) |
| With Comments | =AVERAGEIF(AH:AH, ">0") | =AVERAGEIF(AI:AI, ">0") | =AVERAGEIF(AJ:AJ, ">0") | =AVERAGEIF(AK:AK, ">0") |
| M | =AVERAGEIF(F:F,"M", AH:AH) | =AVERAGEIF(F:F,"M", AI:AI) | =AVERAGEIF(F:F,"M", AJ:AJ) | =AVERAGEIF(F:F,"M", AK:AK) |
| M with Comments | =AVERAGEIFS(AH:AH, AH:AH,">0", F:F, "M") | =AVERAGEIFS(AI:AI, AI:AI,">0", F:F, "M") | =AVERAGEIFS(AJ:AJ, AJ:AJ,">0", F:F, "M") | =AVERAGEIFS(AK:AK, AK:AK,">0", F:F, "M") |
| F | =AVERAGEIF(F:F,"F", AH:AH) | =AVERAGEIF(F:F,"F", AI:AI) | =AVERAGEIF(F:F,"F", AJ:AJ) | =AVERAGEIF(F:F,"F", AK:AK) |
| F with Comments | =AVERAGEIFS(AH:AH, AH:AH,">0", F:F, "F") | =AVERAGEIFS(AI:AI, AI:AI,">0",F:F, "F") | =AVERAGEIFS(AJ:AJ, AJ:AJ,">0", F:F, "F") | =AVERAGEIFS(AK:AK, AK:AK,">0",F:F, "F") |
| NB | =AVERAGEIF(F:F,"NB", AH:AH) | =AVERAGEIF(F:F,"NB", AI:AI) | =AVERAGEIF(F:F,"NB", AJ:AJ) | =AVERAGEIF(F:F,"NB", AK:AK) |
| NB with comments | =AVERAGEIFS(AH:AH, AH:AH,">0", F:F, "NB") | =AVERAGEIFS(AI:AI, AI:AI,">0", F:F, "NB") | =AVERAGEIFS(AJ:AJ, AJ:AJ,">0", F:F, "NB") | =AVERAGEIFS(AK:AK, AK:AK,">0", F:F, "NB") |

*Table 5:* Formulas of summary analyses of totals

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | All | M | F | NB |
| All | =COUNTIF(F:F, "<>")-1 | =COUNTIF(F:F, "M") | =COUNTIF(F:F, "F") | =COUNTIF(F:F, "NB") |
| With Comments/ Replies | =COUNTIFS(F:F, "<>", AH:AH, ">0") | =COUNTIFS(F:F, "M", AH:AH, ">0") | =COUNTIFS(F:F, "F", AH:AH, ">0") | =COUNTIFS(F:F, "NB", AH:AH, ">0") |
| Percentage | =AW6/AW5 | =AX6/AX5 | =AY6/AY5 | =AZ6/AZ5 |
| With Interaction | =COUNTIFS(F:F, "<>", AK:AK, ">0") | =COUNTIFS(F:F, "M", AK:AK, ">0") | =COUNTIFS(F:F, "F", AK:AK, ">0") | =COUNTIFS(F:F, "NB", AK:AK, ">0") |
| Percentage | =AW8/AW5 | =AX8/AX5 | =AY8/AY5 | =AZ8/AZ5 |

*Table 6:* Formulas of summary analyses of sentiment totals

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | All | M | F | NB |
| Average | =AVERAGEIF(AN:AN, ">0") | =AVERAGEIFS(AN:AN,AN:AN, ">0",F:F, "M") | =AVERAGEIFS(AN:AN,AN:AN, ">0",F:F, "F") | =AVERAGEIFS(AN:AN,AN:AN, ">0",F:F, "NB") |
| Totals |  |  |  |  |
| positive | =COUNTIF(AN:AN, ">0.05") | =COUNTIFS(AN:AN, ">0.05", F:F, "M") | =COUNTIFS(AN:AN, ">0.05", F:F, "F") | =COUNTIFS(AN:AN, ">0.05", F:F, "NB") |
| percentage | =AW15/AW5 | =AX15/AX5 | =AY15/AY5 | =AZ15/AZ5 |
| negative | =COUNTIF(AN:AN, "<-0.05") | =COUNTIFS(AN:AN, "<-0.05", F:F, "M") | =COUNTIFS(AN:AN, "<-0.05", F:F, "F") | =COUNTIFS(AN:AN, "<-0.05", F:F, "NB") |
| percentage | =AW17/AW5 | =AX17/AX5 | =AY17/AY5 | =AZ17/AZ5 |
| neutral | =COUNTIFS(AN:AN, "<0.05",AN:AN, ">-0.05") | =COUNTIFS(AN:AN, "<0.05",AN:AN, ">-0.05", F:F, "M") | =COUNTIFS(AN:AN, "<0.05",AN:AN, ">-0.05", F:F, "F") | =COUNTIFS(AN:AN, "<0.05",AN:AN, ">-0.05", F:F, "NB") |
| percentage | =AW19/AW5 | =AX19/AX5 | =AY19/AY5 | =AZ19/AZ5 |

*Table 7:* Formulas of summary analyses of toxicity totals

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | All | M | F | NB |
| Average | =AVERAGEIF(AM:AM, ">0") | =AVERAGEIFS(AM:AM,AM:AM, ">0",F:F, "M") | =AVERAGEIFS(AM:AM,AM:AM, ">0",F:F, "F") | =AVERAGEIFS(AM:AM,AM:AM, ">0",F:F, "NB") |
| Total toxic | =COUNTIF(AM:AM, ">0.3") | =COUNTIFS(AM:AM, ">0.3",F:F, "M") | =COUNTIFS(AM:AM, ">0.3",F:F, "F") | =COUNTIFS(AM:AM, ">0.3",F:F, "NB") |
| Percentage | =AW24/AW5 | =AX25/AX5 | =AY24/AY5 | =AZ25/AZ5 |

*Table 8:* Formulas of summary analyses of judgements

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | All | M | F | NB |
| Totals |  |  |  |  |
| ESH | =COUNTIF(AR:AR, "ESH") | =COUNTIFS(AR:AR, "ESH", F:F, "M") | =COUNTIFS(AR:AR, "ESH",F:F, "F") | =COUNTIFS(AR:AR, "ESH",F:F, "NB") |
| percentage | =BC6/AW5 | =BD6/AX5 | =BE6/AY5 | =BF6/AZ5 |
| YTA | =COUNTIF(AR:AR, "YTA") | =COUNTIFS(AR:AR, "YTA",F:F, "M") | =COUNTIFS(AR:AR, "YTA", F:F, "F") | =COUNTIFS(AR:AR, "YTA",F:F, "NB") |
| percentage | =BC8/AW5 | =BD8/AX5 | =BE8/AY5 | =BF8/AZ5 |
| NTA | =COUNTIF(AR:AR, "NTA") | =COUNTIFS(AR:AR, "NTA",F:F, "M") | =COUNTIFS(AR:AR, "NTA", F:F, "F") | =COUNTIFS(AR:AR, "NTA",F:F, "NB") |
| percentage | =BC10/AW5 | =BD10/AX5 | =BE10/AY5 | =BF10/AZ5\ |

*Table 9:* Breakdown of submission groups by gender and presence of comments

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | All | Male | Female | Nonbinary |
| All | 251 | 99 | 149 | 2 |
| With Comments/ Replies | 222 | 85 | 135 | 1 |

*Table 10:* Breakdown of submission groups by gender, presence of comments, and forum

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | All | Male | Female | Nonbinary |
| r/RelationshipAdvice Posts | 168 | 64 | 103 | 1 |
| r/RelationshipAdvice Posts with Comments | 140 | 50 | 90 | 0 |
|  | All | Male | Female | Nonbinary |
| r/AITA Posts | 83 | 35 | 46 | 1 |
| r/AITA Posts with Comments | 82 | 35 | 45 | 1 |