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Analyzing reddit discourse surrounding generative AI

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Abstract

Generative AI finds itself at the peak of Gartner's Emerging Technology hype cycle. New users of AI frequently turn to social media to not only share their experience but also explore how the new technology could be used. This exploratory analysis seeks to better understand how social media is being used for the sharing of this knowledge through an analysis of topics as well as the relationships among the virtual communities that these users post in. We extract and analyze 5.4M user submissions related to AI across 12 subcommunities of discourse from Reddit. Through topic analysis and sentiment analysis we look to understand what is being discussed both positively and negatively about generative AI. This analysis provides insights into the types of conversations about generative AI on Reddit and serves as a foundation for future research into social media discourse on this topic.

Keywords: reddit, social network analysis, generative AI, ethics, information technology

Introduction

There is no question that generative AI is in the spotlight right now. Gartner declares "Emergent AI will have a profound effect on Business and Society" (*Gartner Places Generative AI on the Peak of Inflated Expectations on the 2023 Hype Cycle for Emerging Technologies*, n.d.) and places it at the peak of inflated expectations on the Emerging Technology hype cycle. This means that there is a general heightened interest in AI and s academics we are constantly being challenged as to what role generative AI will have in our research, in our classrooms, and in society.

The purpose of this exploratory study is to examine how Generative AI is being discussed on social media. Mainstream media news around AI has ranged from the negative "X Is Being Flooded With Graphic Taylor Swift AI Images" (*X Is Being Flooded with Graphic Taylor Swift AI Images - The Verge*, n.d.), to the cautious "Bill Gates Thinks AI Taking Everyone's Job could be a Good Thing" (Archer, n.d.) to the positive "How AI Can Tackle 5 Global Challenges" (Captain, 2023). This exploratory work examines how social media users are discussing AI via Reddit discussion forums, called *subreddits*.

Literature Review

Artificial intelligence (AI) has roots that can be traced back to the 1940s. Key early milestones include Isaac Asimov's Three Laws of Robotics, Alan Turing's development of the code-breaking machine "The Bombe," the Turing Test, and the Dartmouth Summer Research Project on Artificial Intelligence in 1956, which marked the formal recognition of AI as a field (Haenlein & Kaplan, 2019).

There were periods of significant progress and subsequent AI winters, where interest and funding in AI research waned due to unmet expectations (Muthukrishnan et al., 2020). Eventually there was a resurgence of interest in AI that can be attributed to advancements in computational power and deep learning techniques such as neural networks. This resurgence yielded milestones such as IBM's Deep Blue (1990s) and Google's AlphaGo (2010s) which conquered human world chess and Go champions, respectively.

The evolution of AI has further accelerated in the last decade. Breakthroughs such as Alex Net in 2012 and Resnet in 2015 marked the beginning of widespread use of Deep Learning. Bidirectional Encoder Representations from Transformers by Google in 2018 introduced a new way of pre-training language models and achieved state-of-the-art results on various Natural Language Processing tasks. Open AI's Generative Pre-Trained Transformer Series has demonstrated capabilities in generating human-like text. Advancements in hardware such as the development and refinement of Graphics Processing Units have provided the necessary computational power to train these models (Muthukrishnan et al., 2020).

Ethical Considerations

Much has been written regarding the challenges and opportunities of using AI, in particular ChatGPT. Challenges include privacy issues, data confidentiality, bias, misinformation, academic integrity, job displacement, and copyright compliance. Opportunities involve efficiency improvements, idea generation, personalized learning, enhanced productivity, multilingual communication, and cost savings (Bukar et al., 2024). Gill (2024) offers an examination of the ethical considerations surrounding AI technologies, including generative AI like OpenAI's ChatGPT. The article critiques the deterministic nature of AI algorithms and highlights their limitations in replicating human creativity and intelligence. Gill raises significant concerns about ethical alignment, transparency, and the impact on human identity and societal values.

Others have examined public discourse surrounding ChatGPT, highlighting both excitement and concerns. The public's reaction to ChatGPT reflects a blend of enthusiasm for its potential and wariness about its ethical implications and accuracy (Ng & Chow, 2024). One of the obvious potential pitfalls of training AI to think like a person is that they may replicate some of our own worst tendencies. Therein lies the challenge of ensuring that AI systems do not merely replicate human biases and unethical behavior. One study identifies opportunities for AI to enhance decision-making in various domains such as resource allocation, risk management, and public and private sector management by incorporating social preferences into AI algorithms (Klockmann et al., 2022).

The use of AI, specifically Generative Adversarial Networks (GAN), in settings such as social media and the news give examples of the potential harm that can be caused. There are challenges such as the impact on self-image and mental health, particularly through filters like "Teenage Look" and "Bold Glamour." These filters can exacerbate body dysmorphic disorder (BDD) in users and lead to increased body dissatisfaction and eating disorders. While there are potential opportunities for AI to create realistic and engaging content, these come with significant risks (Pendergrass, 2023).

Effectiveness of a finely-tuned BERT model in classifying GPT-generated fake news versus real-world news articles is still evolving. While the model demonstrates high accuracy in detecting AI-generated fake news (84-100%), it struggles with accurately classifying legitimate news articles, indicating a potential bias or issue with feature selection (Stewart et al., 2023). The study underscores the need for further fine-tuning and exploring additional models and larger datasets to improve the efficacy of detecting fake news. The authors also argue the need to ensure that AI-generated text detectors are not biased and are used ethically, avoiding the promotion of self-interest or political agendas. They emphasize the importance of balancing

the need for accurate news reporting with the right to free speech and expression. Ethical considerations include ensuring transparency, accountability, and the development of fair algorithms to maintain public trust in AI systems for news classification (Stewart et al., 2023).

One group of researchers (Huang et al., 2022) categorize AI ethical issues into individual, societal, and environmental levels. Individual issues include privacy, autonomy, and human dignity. Societal level challenges encompass justice, accountability, transparency, privacy, job replacement, and human relationships. Environmental concerns focus on natural resource consumption, pollution, energy use, and sustainability. The authors highlight the need for comprehensive guidelines and principles to address these challenges effectively.

Research has been working towards effective mitigation to address AI bias, which can lead to discrimination, faulty decision-making, and adverse impacts on individuals, communities, and businesses. Bansal et al. (2023) discuss examples of AI bias in various contexts, such as healthcare, hiring practices, and judicial systems, illustrating how biased algorithms can perpetuate discrimination and injustice. A proposed classification framework categorizes the impacts of AI bias into four primary domains: fundamental rights, individuals and societies, the financial sector, and businesses and organizations. Opportunities lie in developing transparent and inclusive AI systems by targeting these specific types of bias.

Some scholars (Ali & Wibowo, 2023) have evaluated the use of ChatGPT for generating programming code in an introductory programming course. Here there are some concerns, including the potential for cheating by students, and the need for educators to carefully integrate AI tools into the curriculum to support learning rather than replacing fundamental programming skills. Challenges identified include the potential for inconsistencies and the inability of ChatGPT to generate modular code across multiple files, which is crucial for advanced programming tasks. Opportunities highlighted involve ChatGPT's ability to generate well-designed code for introductory exercises, providing clear explanations and enhancing students' understanding of programming concepts.

Vaccari and Chadwick (2020) explore the impact of deepfakes on deception, uncertainty, and trust in news through their study on synthetic political videos. Their findings suggest that while deepfakes may not necessarily deceive individuals, they can create significant uncertainty, reducing trust in news on social media.

Social Media

Social media, especially platforms like Reddit, has become an invaluable resource for research due to its vast and diverse user base. There is precedence of Reddit-based thematic analysis for various trends in our society (Caplan & Purser, 2019). Research has been conducted to understand the user data from Reddit including behavior of users (Record et al., 2018). Reddit's organized structure and subreddits make it a great tool for research, providing advantages in understanding and analyzing data. Studies often focus on how users connect and interact within communities. Researchers usually use graph networks and apply algorithms to study the relationships between these communities (Sawicki et al., 2023). There is precedence where researchers have analyzed Reddit user data and comments to understand societal trends such as gender biases towards politicians (Marjanovic et al., 2022). Research scientists have also argued that the evolution of social media, especially Reddit, has opened the door for meaningful engagement between scientists and the general public. This represents a significant improvement from the past, where the general public could only gain access to the experts through the media (Hara et al., 2019). With its extensive and varied audience, Reddit serves as a crucial tool for studies, enabling in-depth examination of user behaviors and societal patterns. By examining user interactions and community dynamics, researchers can understand

thematic trends in our society. However, just because knowledge is being shared does not mean that knowledge is correct. Lee and Valenzuela (2024) find that social media news consumption is often fueled by misinformation. This research provides a perspective on one of the most important topics of today, Generative AI, by analyzing the user discussions in Reddit.

Methodology

This exploratory study employs a comprehensive methodology to analyze 5.4 million Reddit user submissions, focusing on the conversations related to AI. By leveraging topic modeling and sentiment analysis, we identify 12 distinct subcommunities within the AI discourse and delve deeply into the "Generative AI" subcommunity. Our analysis not only uncovers the prevalent themes and sentiments but also sheds light on the dynamic relationships among these virtual communities. The data for this study was drawn from Reddit, a popular social media site where users can submit, comment, and vote (up or down) on others' posted content based on forums of conversation called subreddits. The data was gathered from Pushshift.io (Baumgartner et al., 2020) and spans the period from the founding of Reddit in 2005 through September 2023. To identify the relevant subreddits we searched using:

A) Google with search term "Best Artificial Intelligence Subreddit communities"
B) Reddit search feature and the term "Artificial Intelligence," then looking at the search results by communities
C) ChatGPT through the prompt "what are some of the best subreddits to read to learn about artificial intelligence?"

Combining these search results, we created a list of subreddits, removing duplicates. The resulting data is comprised of 5.4M submissions made across 41 subreddits. Table 1 provides a full listing.

Table 1: Technology Subcommunities

0 – Technology **r/technology**	**1- Science** **r/science**	**2 – Comp Sci** **r/CompSci** **r/algorithms**	**3 – BioInformatics** **r/bioinformatics**
4 – Generative AI r/ChatGPT r/OpenAI r/GPT3 r/ChatGPTCoding r/GPT4 r/GenerativeAI r/AIAssisted r/PromptDesign	5 – Futurology r/Futurology r/singularity r/DarkFuturology	6 – Machine Learning r/MachineLearning r/learnmachinelearning r/robotics r/artificial r/ArtificialIntelligence r/computervision r/deeplearning r/LanguageTechnology r/automate r/reinforcementlearning r/automation r/agi r/alife	7 – Image Generation r/stablediffusion r/midjourney r/aiArt r/dalle2 r/deepdream r/aiwars r/AIGenArt
8 – Programming r/programming	9 – Tech r/tech	10 – Neuroscience r/neuroscience r/cogsci	11 – Video Generation r/aivideos

For our social network analysis (SNA) we created a bipartite graph whose nodes consist of:

1) users that made submissions to any of the subreddits
2) subreddits

An edge, or connection, is formed between a user node and a subreddit nodes if the user made a submission to that subreddit. The edges are then weighted based on the total number of submissions that user made to that subreddit. This information was then entered into Gephi (Bastian et al., 2009) so that network statistics could be calculated. We utilized Gephi's Statistical Inference (Peixoto, 2019) feature to determine how many subcommunities existed and used Gephi's Modularity feature to determine the subreddits within each subcommunity. Our visualizations were created using the Force Atlas 2 layout (Jacomy et al., 2014) with nodes being sized based on the unique number of users submitting to each subreddit. The colors were established based on the subcommunities to highlight which subreddits were grouped together.

Topic Analysis

We ran a topic analysis using each submission's "title" field, which contains the text of the submission. Using the Python Gensim library (Rehurek & Sojka, 2011), we built our topics based on Latent Dirichlet Allocation (LDA) (Blei et al., 2003). We ran multiple iterations of LDA increasing our topic count until the coherence score plateaued for each subcommunity. Topic labeling was done using the top 15 words extracted from the LDA for each topic with the LDA term weighting taken into consideration.

Results

Our dataset consisted of 5.4M submissions made by 1.2M unique users across our 41 identified subreddits. Figure 1 shows the number of submissions per month including all 41 subreddits since the launch of Reddit. We observed periods of rapid growth with the most recent growth period beginning in 2022 which corresponds with the rise in interest in AI.

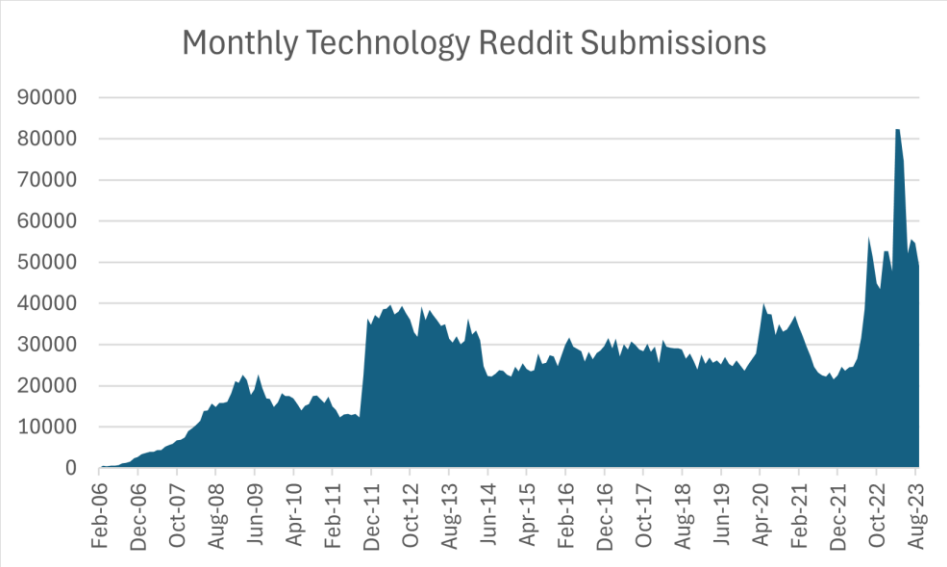

Figure 1: Monthly Reddit Submissions

Gephi's Statistical Inference tool recognized the entire 41 subreddit communities as a single community, providing justification for treating these 41 subreddits together. We were able to isolate 12 technical subcommunities through the Modularity Tool. Table 1 lists those subcommunities along with their associated subreddits.

We labeled each subcommunity based on the subreddits included in it. These subcommunities are based on submissions from users, not on the actual content of these submissions. We find that the subreddits are clustered together roughly as one would expect. For two subreddits to appear in the same subcommunity, there would need to be a significant number of the same users posting in both subreddits. This highlights the fact that posting behavior alone can aggregate subreddits of similar topics. However, we were surprised to see that r/technology and r/tech did not group together, suggesting that these two subreddits serve different audiences.

The annual volume of submissions for the 12 subcommunities in Table 1 is shown in Figure 2. As one would expect, the Gen AI and Image Generation subcommunities have seen rapid growth over the last 2 years of our sample while most other technology related communities have been seeing a decline in recent years. Since our dataset runs through September 2023, the recorded 2023 volume for all communities is only for the first nine months of the year. This means the rapid rise for Gen AI and Image Generation would probably be even higher than shown were we able to account for the full year.

Just because a subreddit was founded early does not mean it experienced constant growth. The two earliest subreddits (r/programming and r/science) have had slow declines over the past decade. We could speculate that those who participated in the generic r/programming subreddit have likely moved to more focused subreddits such as r/Python which currently has 1.2M members. As such, we would not put too much emphasis on the decline of the technology subreddits. However, what this chart does show us is that Reddit users, instead of discussing emerging technologies in previously established technology subreddits, are likely opting to launch new subreddits and are able to grow those subreddits rapidly, indicating that users are not loyal to any given subreddit.

Next, we break out the volume to better understand who is making submissions where. Users in our sample made an average of 4.44 submission per subreddit in 1.23 subreddits. This indicates that the average user limits their submissions to just one or two subreddits. The number of subreddits posted to by any given user ranged from 1 to 30. The most diverse user ("u/kk7nc") posted at least one submission in 30 of the 41 subreddits included in this study. The number of submissions by a single user across all 41 subreddits ranged from 1 to 33,027. Values near the maximum of this range could indicate some level of bot activity. However, as our dataset spans 17 years with a maximum of 33,027 posts, suggesting an average of roughly 2,000 posts per year, which is incredibly low for bot activity, there is no indication that these communities are overwhelmed with bot accounts.

Table 2 shows key statistics for the top 10 subreddits based on total number of submissions. We can see that the subcommunity classification recognized most of the largest subreddits as their own subcommunity. This indicates that there is not enough user overlap between the subreddits to consider them in the same subcommunity as other subreddits. However, as we move into the smaller subreddits we see the grouping of the image generating tools (r/midjourney, r/StableDiffusion, and r/aiArt). This suggests that users participating in those subreddits frequently post in the other image focused subreddits.

Table 2: Key Statistics for Top 10 Subreddits

Subreddit	# Unique Contributors	# of Submissions	Average # Sub per User	Page Rank	Subcommunity
r/technology	538,228	2,138,703	3.97	18.39%	Technology
r/science	230,103	881,215	3.83	7.37%	Science
r/programming	131,229	585,369	4.46	4.09%	Programming
r/futurology	70,308	294,342	4.19	2.01%	Futurology
r/tech	43,381	198,181	4.57	1.18%	Tech
r/MachineLearning	62,966	179,255	2.85	1.70%	Machine Learning
r/midjourney	29,639	97,854	3.30	0.95%	Image Generation
r/StableDiffusion	32,056	96,212	3.00	1.00%	Image Generation
r/ChatGPT	54,844	88,069	1.61	1.78%	Generative AI
r/aiArt	19,411	71,503	3.68	0.58%	Image Generation

One way of measuring importance in a social network is to consider the Page Rank measure (Brin & Page, 1998). The measure, created to prioritize web pages on Google's search results, shows the likelihood that a user would arrive at any given site. Here we can see that r/technology accounts for 18.39% of the traffic while the AI specific subreddits are each in the 1-2% range. This suggests that historically r/technology would have seen much more traffic, but we caution that many of the AI subreddits have only recently emerged. We would expect, based on the overall pattern of submissions in Figure 2, that the Page Rank will decrease for r/technology, ceding share to the AI subreddits.

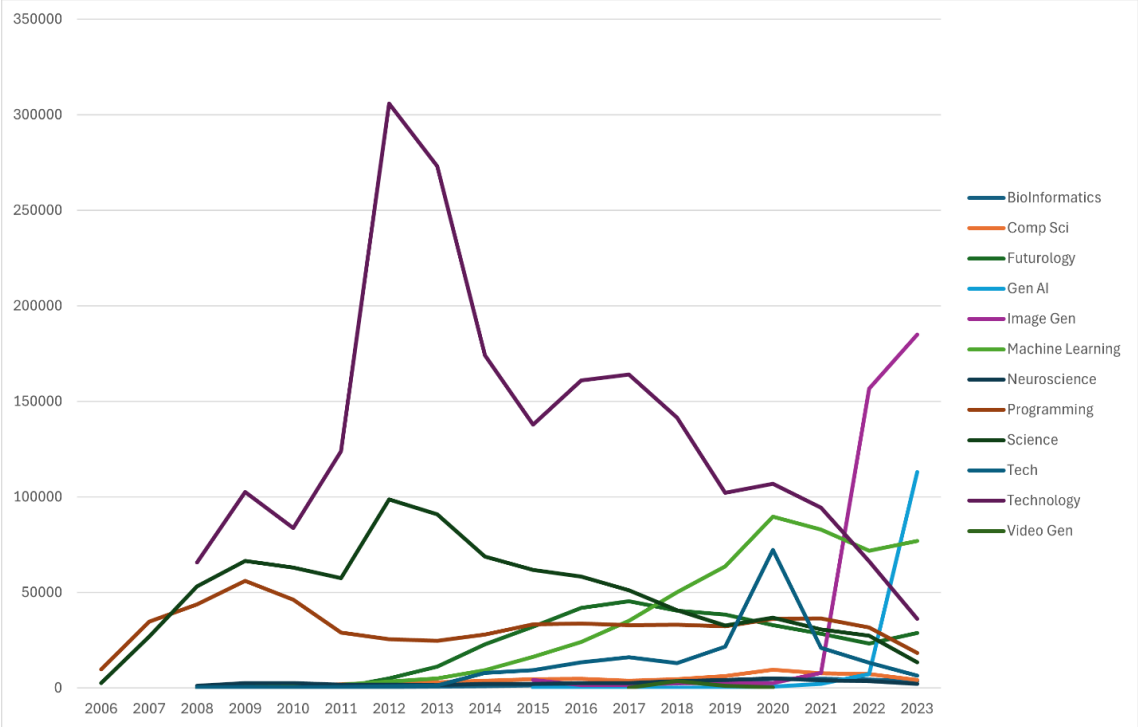

Figure 2: Annual Submissions by Subreddit

Figure 3 shows the entire user/submission/subreddit network as visualized using Gephi's Force Atlas 2 layout. Colors are based on the subcommunities from Table 1. The subreddits are sized based on the number of unique contributors to that community. This is done to de-emphasize subreddits that have a high number

of automated posts through bots. Subreddits with a larger percentage of shared users will be pulled together while those lacking shared users will be pushed apart. While the r/technology subreddit dominates this community with 38.97% of all users, it is interesting to note the other nearby subcommunities (Science, Futurology, and Programming) versus those pushed furthest away (Generative AI and Image Generation). This suggests that the subcommunity of users most interested in discussing generative AI and image generation does not necessarily overlap with those interested in core technology interests.

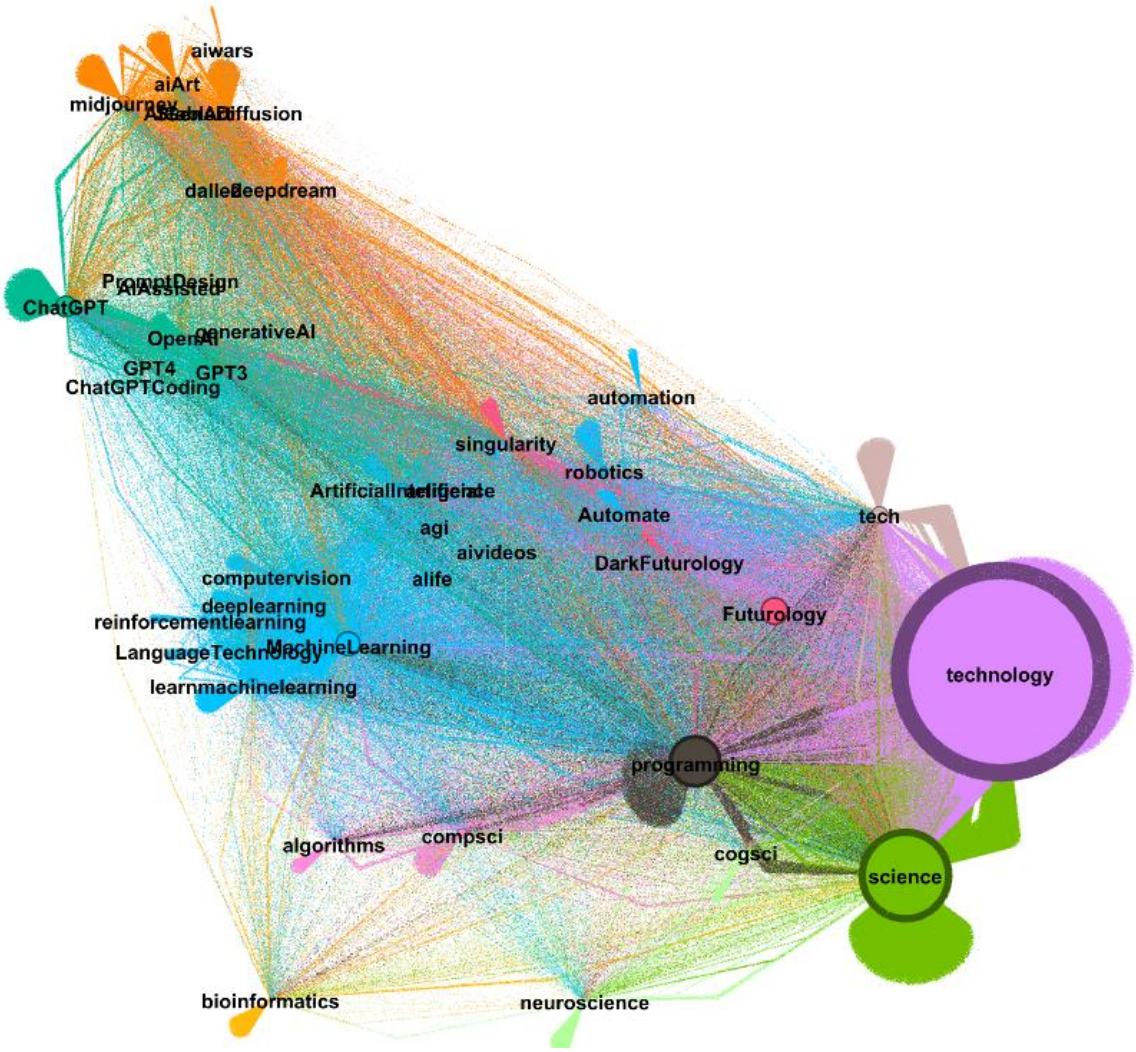

Figure 3: Technology Social Network Diagram

Topic Analysis

We turn our focus to the subcommunity labeled Generative AI (colored dark green in Figure 3). To understand what users are talking about with regards to Generative AI on Reddit, we performed an LDA topic analysis across the entire set of submissions for this group of subreddits and then applied those topics back to the individual submissions, selecting the most relevant topic for each submission as described below.

This subcommunity is made up of 60,045 users who made at least one submission to one of the 8 subreddits. There were a total of 141,988 submissions made. Figure 4 displays the most frequently occurring words

(after removing stop words) in the Generative AI subcommunity's submissions. These results indicate that most of the discussion is around using ChatGPT. This is not surprising given that 102,928 (72.5%) of all submissions were in r/ChatGPT. The only competing product to ChatGPT listed in the top 20 terms is Bing AI, which is integrated into the Bing search engine. No subreddits for competing products emerged through our search process.

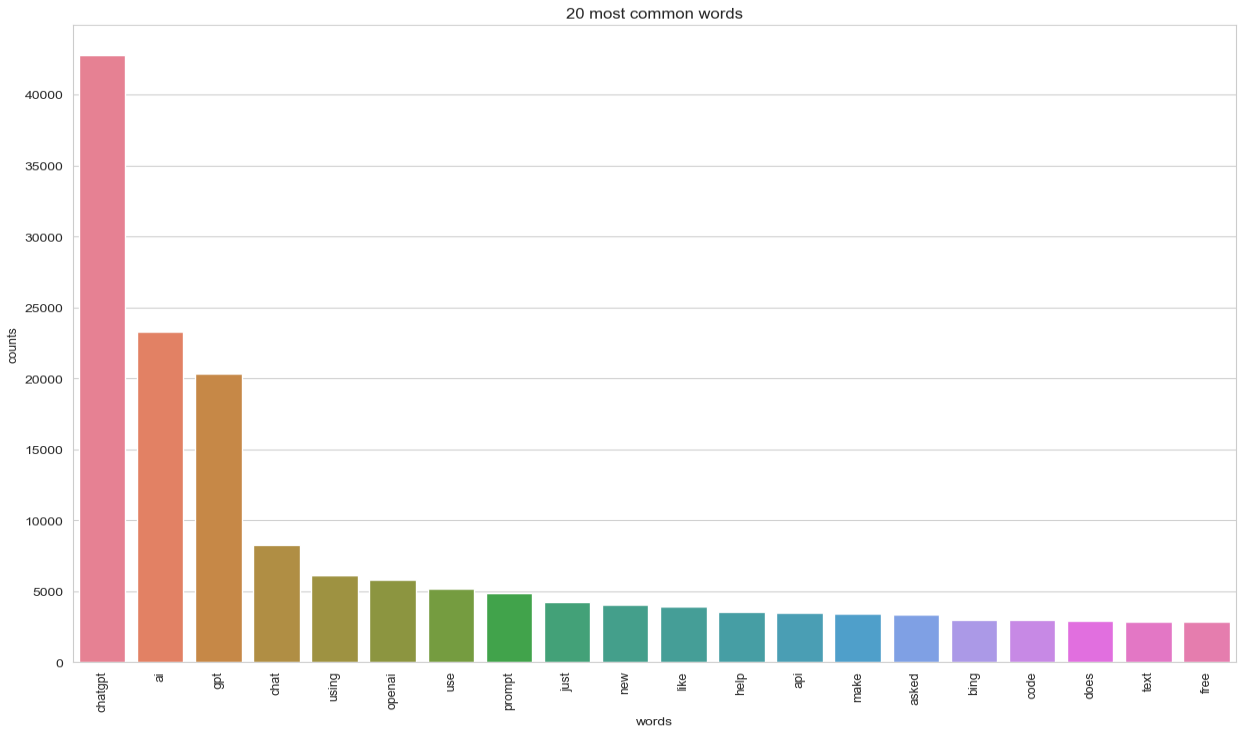

Figure 4: Top Terms in the Generative AI Community

Using coherence, scores we found the optimal number of topics in this subcommunity was 16. All 16 topics had ChatGPT appearing as the highest or second highest weighted term, again suggesting the conversation is dominated by ChatGPT. As such, labeling of the topics was based on nuances of lower-weighted unique terms (see Table 3 for Topic Labels). Figure 5 shows the intertopic distance map. This yields a visualization that shows not only the distribution of the words to the topics (i.e. size of circle) but also highlights which topics are similar (closer together) versus different. Eight of the sixteen topics are clustered together suggesting that these topics are similar with each other (i.e. have a high level of overlapping terms) and we would expect to see common themes throughout these topics.

Figure 5: Intertopic Distance Map

Considering the labels we assigned to each topic (Table 3), we can see that most of the topics are related to the actual use of the tool. This suggests that many in the community are simply trying to understand how to use the technology. This is certainly understandable when one considers the emerging status of the tools and the availability of these tools to the general public. Other topics of interest include discussions around "the future of AI" (Topic 10), "coding and improving work using GPT" (Topic 16), and "bypassing filters that are present in chatbots" (Topics 6 and 11).

Table 3: Generative AI Topic Labels

Topic Labels	
1 – Getting Started – Prompt Writing	9 – AI Gaming
2 – Using GPT APIs	10 – Future of AI
3 – Getting Started – Content Development	11 – Bypassing Filters using API
4 – Comparing Tools	12 – Creating Apps
5 – Prompt Engineering	13 – Snapchat Videos
6 – Bypassing Filters	14 – Open Source Development Tools
7 – Getting Started – Using APIs	15 – Chatbot Conversations
8 – Getting Started – Accessing AI	16 – Coding & Improving Work using GPT

Next, we identified the dominant topic for each submission and assigned that submission to that topic. Figure 6 shows the allocation of topics across each subreddit. The allocation is the percent of that subreddit's submissions that fall in each topic. We observe that there is not a great deal of distinction between the subreddits. In other words, across these subreddits, users are still trying to understand how to use the tool. The lowest volume topic (Topic 6) was related to bypassing filters. On the one hand we are heartened that this is the lowest volume topic while we are also dismayed that the topic even exists.

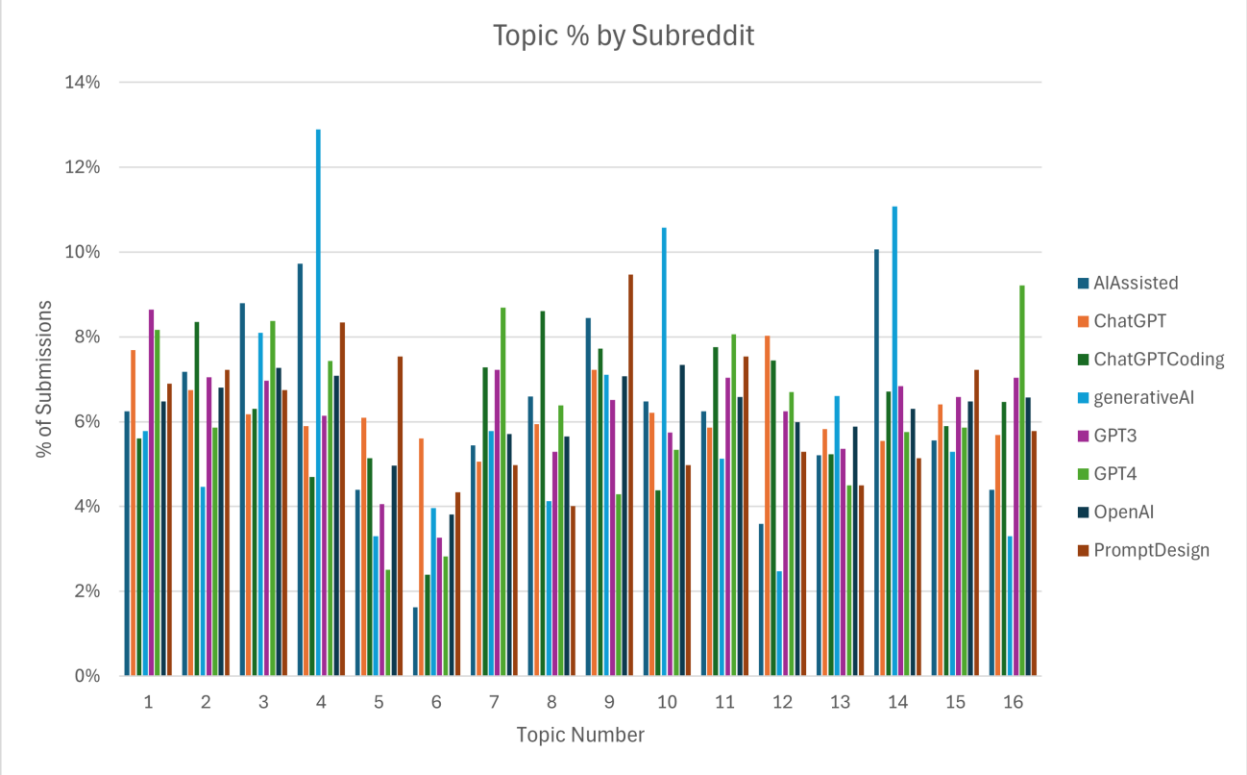

Figure 6: Topic Distribution by Subreddit

We turn our attention to examining where information that is being shared is coming from. We extracted the top 15 non-Reddit sites from which submissions shared information for each subreddit. The results are seen in Figure 7. Youtube is the largest site of shared information. Since most of our topics were related to getting started with AI, it appears that Youtube is a popular platform for first learning how to use AI.

Other sites of interest include Medium.com, where both professionals and non-professionals share their expertise, and elblogdefamosas.com which defines itself as "a resource for marketers to find AI tools and platforms to work smarter, faster, and cheaper." Softswarecracks.com is a website touting "All Type of Cracked PC Software" suggesting that some GPT users were interested in bypassing the restrictions of ChatGPT.

Github appearing in the top 15 suggests that users were interested in learning about how to write code to access APIs. Finally, the link to arxiv.org, home of "nearly 2.4 million scholarly articles" points to academic research being shared with the community. As we saw with the topics, the distribution of these sites across the subreddits suggest similar discussions were occurring no matter what subreddit was involved.

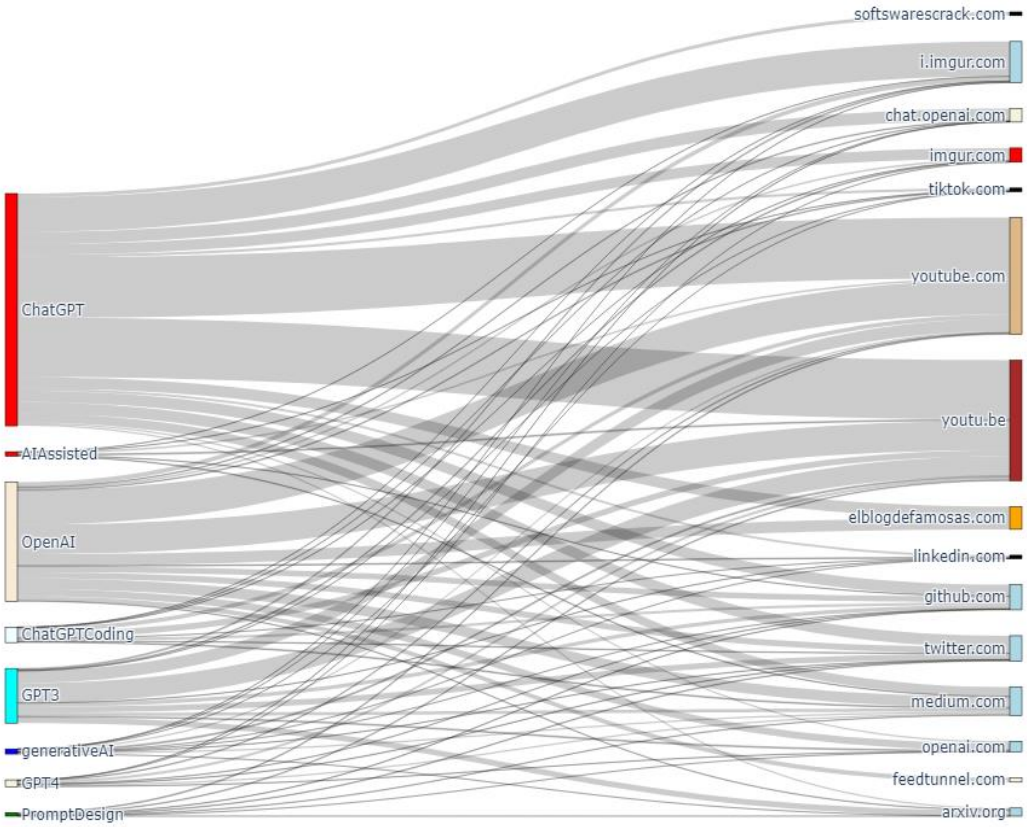

Figure 7: Subreddit by News Source

Finally, we scored each submission for sentiment (see Figure 8) using the Python library Vader, which assigns a comprehensive score ranging from -1 (extremely negative) to +1 (extremely positive). The mean across all submissions was +0.079. The distribution amongst the subreddits ranged from a mean of +0.071 (r/ChatGPT) to +0.199 (r/Promptdesign). Figure 8 shows the boxplots for sentiment by subreddit. We can see that across all subreddits, sentiment was generally positive. These scores indicate that the community overall is talking positively about these technologies.

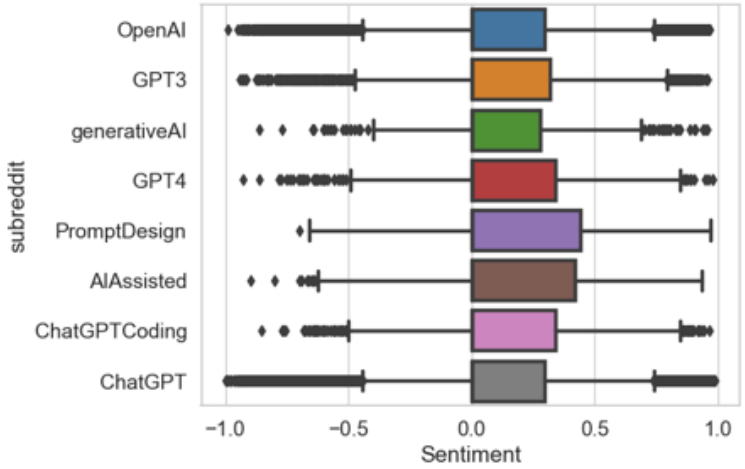

Figure 8: Sentiment by Subreddit

Discussion

The purpose of this exploratory study was to understand how Reddit users are talking about AI. Our first key finding is that the community discussing AI is different from those historically focused on other technologies. This suggests that AI appeals to a broader user base than traditional technology-based topics. Additionally, it shows that Reddit communities can emerge spontaneously with new technologies, necessitating that analysts of emerging technologies cannot rely on pre-existing technology communities.

Our second key finding is that the Generative AI subcommunity is distinct from the Image AI subcommunity and should be treated as two separate entities in future analysis. This supports the notion that generative AI is multifaceted and attracts various communities of interest. Researchers cannot rely on a single Reddit community to comprehend the complexity of AI.

Our third key finding is that discussions about generative AI primarily revolve around learning to use the technology. While mainstream media often focuses on AI replacing jobs, generating inappropriate content, and aiding academic dishonesty, these topics are not dominant on Reddit. Instead, users are exploring ways to use the technology and occasionally discussing bypassing restrictions to create content that AI companies might deem inappropriate.

Our fourth key finding is that the overall sentiment about AI on Reddit is positive. Similar to our previous finding, discussions do not dwell on the negative aspects of AI. The Reddit community generally views AI favorably, without a vocal group of critics countering these positive discussions.

Our fifth key finding is that YouTube is the preferred media platform for this community, rather than traditional technology websites. This underscores that the dissemination of AI-related information is driven by the general public, which may or may not ensure accuracy in shared information.

Finally, our analysis indicates that user subcommunities can be distinguished by analyzing posting patterns. The communities discussing generative AI and AI imaging are distinct and have shown significant increases in user activity in recent years. There is evidence suggesting that users increasingly gravitate toward specialized communities rather than using broader, pre-existing ones. Unlike Twitter/X research, there is little to no evidence that bots significantly influence discussions on Reddit. Our topic analysis suggests that many users are grappling with how to use AI to enhance productivity, as expected with an emerging technology. A notable concern is the interest and discussion around bypassing safeguards, implying that Reddit serves as a platform for sharing techniques to circumvent these protections.

Conclusion

In conclusion, our exploratory study sheds light on the dynamic discourse surrounding AI within Reddit communities. Unlike traditional technology spheres, the AI community on Reddit encompasses a diverse range of users, indicating broader societal engagement with the technology. The distinct subcommunities focused on Generative AI versus Image AI underscore the multifaceted nature of AI applications, necessitating nuanced approaches in future research and analysis. Moreover, discussions predominantly revolve around practical applications and learning rather than sensationalized concerns portrayed in mainstream media. The overwhelmingly positive sentiment towards AI within these discussions suggests a prevailing optimism, largely unchallenged by dissenting voices. Finally, the preference for YouTube as an information medium highlights the evolving landscape of AI discourse, driven by public dissemination rather than conventional technology channels. This study underscores the importance of monitoring and

understanding emerging Reddit communities to capture a comprehensive view of public perceptions and interactions with AI technologies.

Limitations and Directions for Future Research

This paper traces the trajectory of the Reddit discourse on Generative AI through September 2023 when this research was launched. It would be worthwhile to shift this interval forward to capture the most recent conversations. The rise in the subcommunity associated with AI Image Creation is worth noting and will merit its own deeper look in the future. Our analysis has not examined statistics associated with upvotes, downvotes or numbers of comments on posts, all of which could yield interesting insights.

Additionally, future research could explore the comparative analysis of AI discourse across different social media platforms, such as Twitter, Facebook, and LinkedIn, to understand how discussions vary by platform and audience. Investigating the role of influential users or "superposters" who contribute significantly to AI conversations can reveal patterns of influence and information dissemination within these communities.

As with all emerging technologies, changes and usage can change rapidly as the technology matures. While our findings are appropriate for this point in time, we would expect significant changes to occur as the community becomes more comfortable with the technology and realizes the capabilities of the technology. As such, longitudinal studies that use this study as a baseline point in time would be appropriate and encouraged.

Finally, examining the ethical implications and societal impacts of AI discussions on social media, particularly in terms of misinformation, bias, and public perception, will be crucial for developing strategies to mitigate potential negative consequences and promote responsible AI usage.

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