

Figure 1: Google Trends on public interest in Memes and Jesus from 2004-Present.

MIME: Scrolling Through Laughs

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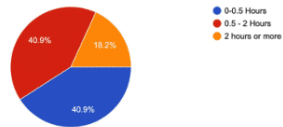
ABSTRACT

Memes have become a predominant means of expression in the internet culture- they are not only used as a means of entertainment but as an important tool for advertising, spreading propaganda and even political ideologies [4]. However, the creation of memes is limited to a niche community of content creators who are skilled in photo/video editing software. Mime is a platform which empowers people who lack these skills to become a part of the meme conversation. We built a one-stop solution for all meme needs - a maker space where people can create memes, a personalized meme feed, and a space to connect with other meme enthusiasts. Further, we hypothesize that a person's meme interests can be an intrinsic indicator of social preferences and can form the basis of strong interpersonal connections. We aim to create a strong community by enabling users to form connections based on similar meme interests.

MIME: Scrolling Through Laughs

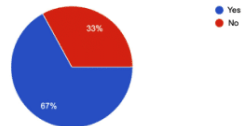
How much time in a day, do you spend in scrolling memes?

88 responses



Do you think that the memes you like/make represent your emotions?

88 responses



Would you like to find people with similar interest in memes?

88 responses

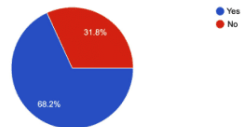


Figure 2: Results of the initial survey to test how many people engage with memes on an everyday basis and would they like to connect with other people based on meme interests.

KEYWORDS

Memes;Mime;Social media;Expression;Internet;Pop culture;Advertising;Design;Preferences

INTRODUCTION

The age of online social media has given internet users a platform to express their views and opinions. One of the most popular forms of expression these days is through internet memes. A meme is an image, video, piece of text, etc., typically humorous in nature, that is copied and spread rapidly by Internet users, often with slight variations [2].

Memes have gotten increasingly popular over the years. They are extensively used in marketing and politics too. Richard Dawkins, in his book *The Selfish Gene* [1], goes on to say that 'memes are cultural replicators'. A study done by Heidi E. Huntington in Colorado State University shows that 'memes influence users'. Google Trends shows that user interest in memes has surpassed that in Jesus in 2014 [3].

Through research and our own experiences, we realized that memes are an unavoidable part of every millennial's life and they spend a considerable amount of time browsing through memes.

After doing a comprehensive study of currently available meme platforms, we identified several issues that prevent users on these platforms to get a complete meme experience. Currently, most meme generators are ill-equipped with the right tools. Some generators only provide predefined templates for users to edit or caption, while others provide a blank palette to doodle in, but none of them have all the options in one place. A lot of creators have to resort to photo/video editing software for their purposes. Even if a user were to compromise on the meme generator's shortcomings, none of the generators are directly linked to a social media or meme browsing platform. The existing meme browsers only had a common feed; none of them had custom topic wise feed calibrated to the user's interests. The user could himself go looking in the categories he was interested in, but no platforms save user's preferences and filter his feed accordingly. Since no platforms saved user's preferences, it follows that they were not using dynamic feed adaptation which could potential improve user experience greatly. Lastly, none of the platforms enabled preference driven connections between its users.

Mime is built taking care of all these considerations; we want to give the user a wholesome meme experience. It is a meme haven, a place where one can discover everything there is about memes. It encapsulates three aspects. First, it contains a personalized meme feed constantly calibrated to the

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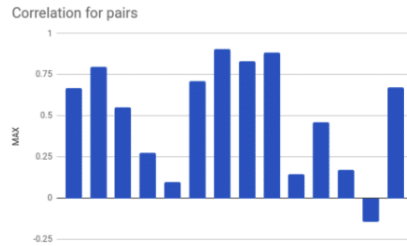


Figure 3: Correlation for responses of meme ratings for a pair of friends.



Figure 4: Correlation for responses of meme ratings for a pair of random subjects.

user's latest preferences using a relevance feedback loop. Second, it provides an all purpose maker space for uploading and creating memes using templates, free drawings and photos uploaded from phone gallery. Lastly, there is a social corner, so to say, enabling people to connect with other people with similar meme preferences.

INITIAL RESEARCH

Even though we were motivated to build a platform based on memes, we decided to do a user study with the aim to see if others felt the same and not just work on our assumptions. We conducted a survey to gauge the strength of our research and assumptions. A total of 88 people filled the survey and result turned out as follows: 61.3% people spent at least 30 minutes every day on memes; 70.7% felt that memes they like represent their emotions and they connect with their content on a daily basis; 68% people wanted to connect to people with similar meme interests.

DECEPTIVE STUDY

We conducted a deceptive study in which undergraduate students were asked to participate in pairs with friends. The study was conducted with 14 pairs (28 people). They were told that they would be answering questions on Behaviour and Interaction of Users on Online Social Media. However, we actually wanted to compare the meme preferences of people with their friends and other random subjects. Not telling the subjects the true purpose of the study ensured that we got unbiased responses and improved the credibility of the outcome.

The purpose of our study was twofold - to validate our assumption that there was a discernible correlation between friends and their meme interests, and to get an idea of what people think about our app, get suggestions and discuss privacy concerns. The subjects of each pair were sat down separately so they could not influence each other's responses.

The study was conducted in three phases. First, in the pre-activity interview, we asked the subjects some questions on social media usage and how they made new connections online. The second part was the main focus of the study. We set up a small website having 20 memes and asked the subjects to rate the memes on a scale of 1-10. The same set of memes was being shown to his partner in the other room. We found that correlation of two friends' responses was higher than the correlation between random subjects. Lastly, in the post-activity interview, we revealed the true purpose of the study and informed the participants about our platform. We conducted a small group discussion where we discussed the features such a platform should have and discussed a few interface options.

IDEATION

Incorporating their suggestions, preferences and privacy concerns, we made the following affinity diagram, on the basis of which we started designing the first prototype of our app. Our idea was

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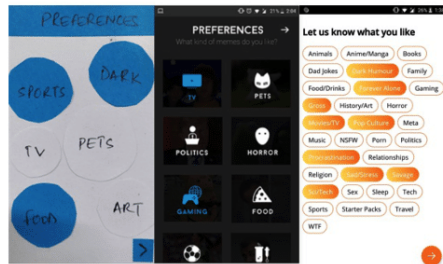


Figure 5: Evolution of Preferences window

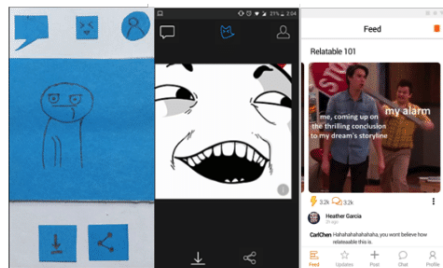


Figure 6: Evolution of Feed window

simple. We wanted our users to login and move through the cycle of exploring memes and reacting to them which would act as the feedback to calibrate the feed as per the users' preferences. As an outcome of their browsing and reacting, a profile of their interests would be created, which would be cross-correlated with other people's profiles to get accurate matches. These would be suggested to the user as possible connections which the user could follow and chat with. Then, we started with deciding the main features of the app. They included: login, meme category preferences, a meme feed, like/dislike, chat, share/download memes, and a profile. We had some ideas in mind for the design of a few pages and decided on the interactions between the pages.

LOW FIDELITY PROTOTYPE

We made a low-fi prototype on the basis of the affinity diagram. We then conducted a few iterations of user testing to improve the usability of the interfaces, ease of transition between interfaces and to find out if any action defined by us was not intuitive.

Issues identified during user testing and the design changes made:

Users preferred bars over schematics to depict their preferences in their profile. They were confused by what the schematic and its dotted boundaries represented. A small difference in preferences between two categories could not be detected easily by the naked eye which made the comparison between categories difficult. There was no problem in setting preferences but users had a doubt regarding the size of the circles for preferences and if that had anything to the number of memes that would be available. It looked unorganized and cluttered. Liking a meme through swipe up was not intuitive as most apps have double tap to like. So, swiping up to upvote (like) a meme is not intuitive to the user as the first action performed by the user is double tap or finding the like button. There was a problem in finding suggestions window (the button for going to suggestions was the logo) as the users never thought that the logo was actually a button. The direction of going from homepage to chat and then a particular chat was not unidirectional which made it confusing and annoying. The schematic highlighting preferences were changed to bars placed in descending order. The length of the bar represented their extent of liking for a category. We changed the preferences options to square boxes with equally spaced square boxes instead of the circle. We changed the gesture for like to double tap instead of swipe up. We added an 'i' button at the corner of each meme to guide the user through the whole window. Made the flow from homepage to chat window to chats unidirectional.

HIGH FIDELITY PROTOTYPE

The low-fi was translated into the first high-fi prototype of our app, incorporating the design changes identified as the results of user study. At this point, started thinking about a name for the app. At first, we decided on MayMayMe. It is a combination of the words MayMay (a mispronunciation of

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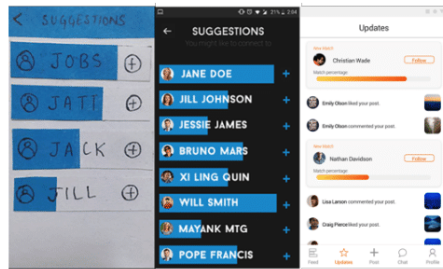


Figure 7: Evolution of Suggestions/Notifications window

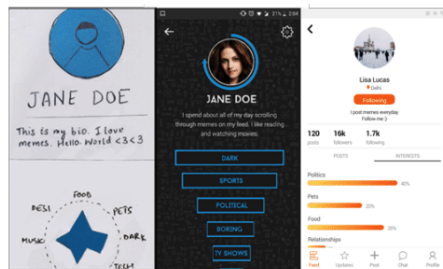


Figure 8: Evolution of Profile window

Meme, often made fun of in the meme community) and Me. It was a modification of the phrase 'meet me' to 'meme me' as our app will help users connect based on meme interests. Additionally, it can be interpreted as internet lingo for 'send me a meme'. However, it was not received well by the users. It was pointed out that there were too many syllables. Finally, we switched to 'MIME'. It was a combination of 'my/mine' and 'meme'. Our vision for this app is for the common user to be able to express his sense of humor effortlessly and claim ownership for it. Hence, 'my meme' sounds like an appropriate name for it. 'Mime' also means 'to use only gesture and movement to act out (a play or role)'. It is an art form utilizing indirect ways of communication to express oneself, which, we feel, is the role that memes play in our community as well.

USER TESTING

To perform user testing, we went to the ongoing Meme Festival in Delhi (March 30 - April 1) to receive feedback from the potential users of the app. The symbol for like (or 'lit' as we used to call it) - it was the symbol for fire - was not too popular as it seemed too mainstream. The name was not a very catchy one. It was pointed out that there were too many syllables. As for the logo, the meaning or the significance was not immediately obvious so it did not catch much attention. Some people liked the dark mode, but most people suggested that there should be a light mode as well. The memes did not have a caption. Content creators were of the opinion that a caption was a must. It would also go a long way in easier lookup for later. The app did not have an option to comment on memes. Users pointed out that comment threads were a quintessential part of the meme universe and were, at times, funnier than the meme itself. One thing that they did not like were the quality of memes. We are now looking into new sources to get better memes. There were some concerns regarding privacy, so we explored the idea of anonymizing the profile according to the needs of the user. People pointed out that there must be a simple tutorial at first login, even though app itself is quite intuitive. The suggestions window was not intuitively accessible (tapping on the logo) even after adding the 'i' button at the corner of each meme to guide the user through the whole window. Some of the users wanted upvote/downvote but the general consensus stood with double-tap to like. In the earlier version, there was an option of liking a meme but no option of unliking it. This was because we wanted to keep the app minimal and flowing. However, many people pointed out that a meme could get liked by mistake.

FINAL VERSION - MIME

After identifying all these issues, we decided that it was time to do a major overhaul in the app design and features. Symbol for 'lit': Our previous symbol for 'lit' was a symbol of power in the natural elements - fire. We started looking in the natural elements and found that the other powerful natural element, a lightning bolt, would be perfect for us. Choosing the logo: We decided to keep it simple and use our icon for 'lit' personified by laughing eyes, on a disc of yellow. It was easier to understand

that it represented something flashy. Light mode vs Dark mode: As our a result of our user study, we found that most users preferred a light mode, hence we decided to keep the app in light mode by default and have an option of switching to dark mode in the settings. Caption and Commenting: To enable captioning and commenting, we changed the feed screen to look like this. We added a navigation bar at the bottom of the screen for easier switching between screens. Earlier the buttons for switching between screens were at the top left and right of the screen, so out of reach for the average user's thumb. Tutorial: As per justified public demand, we added tutorial slides at the landing screen of the app so first time users would not have a hard time figuring out the basic usage. Notifications cum suggestions page: To turn this app into a proper social media platform, we added an updates tab, so people would be notified when people like or comment on their posts. Such validation, we believe, would lead users to come back and check the app more and more frequently. We decided to incorporate the follow suggestions, within the updates tab, as users were finding it difficult to go to the suggestions window in the earlier design. Furthermore, we feel that every time a match is identified, a user needs to be separately notified about it rather than the user needing to go to the suggestions window to look for people to follow. This would facilitate connections on this platform and make it more likely that people find others with similar interests. Unlike: We added the option of double tapping a liked meme again to unlike.

DISCUSSION AND CONCLUSION

Since Mime will be the first community of its kind, it also opens up a lot of research possibilities. An interesting research area is how much of the network is Influenced (i.e. the connections made on similar meme preferences) and how much is Organic (i.e. the connections made without algorithmic suggestions). A high Influence-to-Organic ratio would suggest the success of meme preference based matching and result in a closely knit community.

We are interested in the converting a person who only views memes (consumer) to become a person to frequently generates them as well (producer). The consumer-producer conversion trends can give us a lot of information about the impact that Mime is making on its users. Additionally, how can we give incentives to a user who just consumes memes to become a producer of memes.

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