COVID-19 Informer Case Study - Goldie Zhu, Qiaoru Zhang, Selin Sabrican, Julia Gil
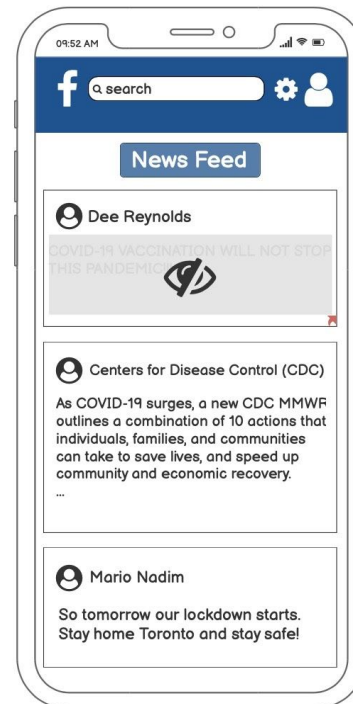
The COVID-19 Informer is an app extension for Facebook, which is part of the Information Technology Sector. It is an add-on to the UI of the existing Facebook app and is created to help Facebook users avoid COVID-19 misinformation. It has four features: promotion, filter, trigger warning, and color-coding. The Promotion Feature singles out verified COVID-19 posts and promotes them to Facebook users. The Filtering options features allow Facebook users to filter posts for a specific date, source, and location. The Trigger Warning feature blocks out COVID-19 related content and allows Facebook users to choose whether or not they want to see the content. The Color Coding feature uses colors to allow users to quickly determine the accuracy of information or source.
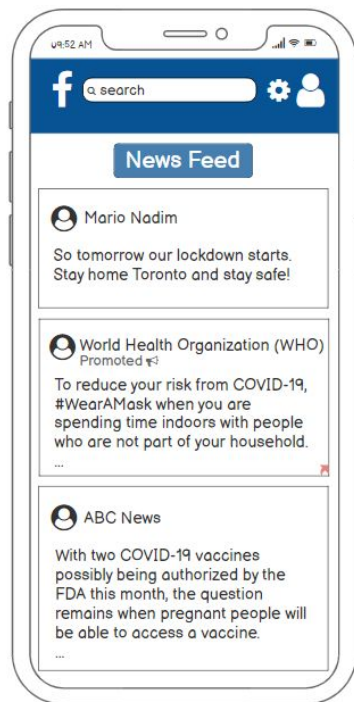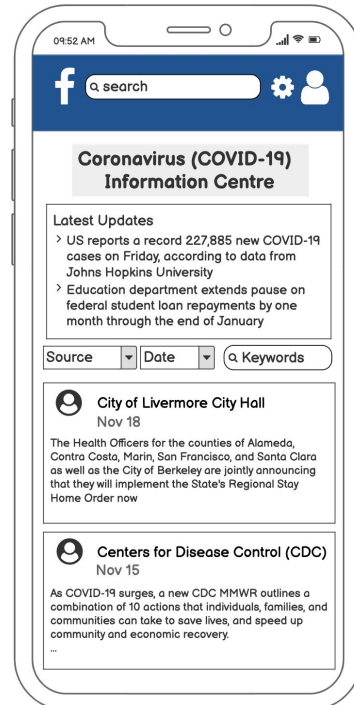
Promotion Feature   *Filtering Options Feature*   *Trigger Warning Feature*   *Color- Coding Feature*

The purpose of each feature is the Trigger Warning Feature reduces the probability of Fiona Fonte accessing COVID-19 misinformation, the Color-Coding Feature enhances digital media literacy on Facebook, the Promotion Feature connects users to authorized COVID-19 sources, and finally, the Filter Options Feature shortens the time spent accessing relevant information in the COVID-19 Information Center. After the completion of five design steps, the design team decided that these four features would be most effective in minimizing the spread of misinformation on Facebook. Next, I will elaborate on the five steps the designers of COVID-19 Informer completed to create and polish the finished product.

1. Discovery

In the Discovery phase of the design process, the design team laid out the goals and scope of the project, which was to improve the experience of Facebook users when they interact with COVID-19 information. The problem description was created, and primary and secondary research was used to determine the common needs, experiences, and problems of regular Facebook users. Through the use of interviews and a Google survey, the design team was able to understand the problems that users encountered. Thanks to Qiaoru, the design team was able to efficiently obtain and analyze a lot of data. Some questions and results from the survey below:

Question 4 :

How often have you encountered information regarding COVID-19 on Facebook?

Table 3: Summarizes the central tendency measures from the Facebook user data set

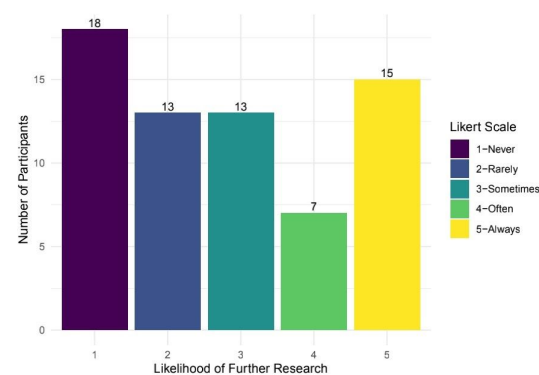| Mean	Median	Mode
2.727273	3	2
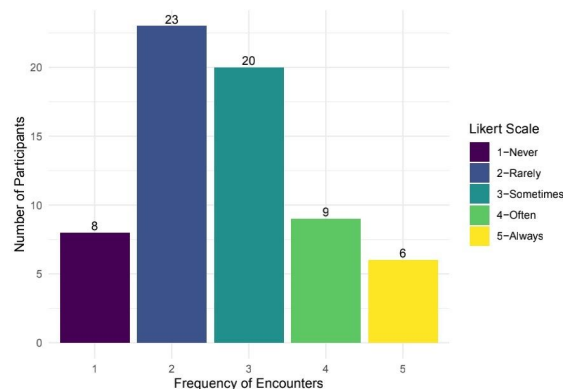
Question 8 :

Do you conduct further research on information relating to COVID-19 that you encounter on Facebook?

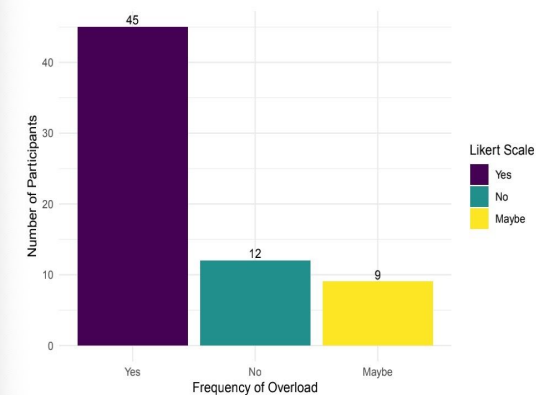Table 4: Summarizes the central tendency measures from the Facebook user data set

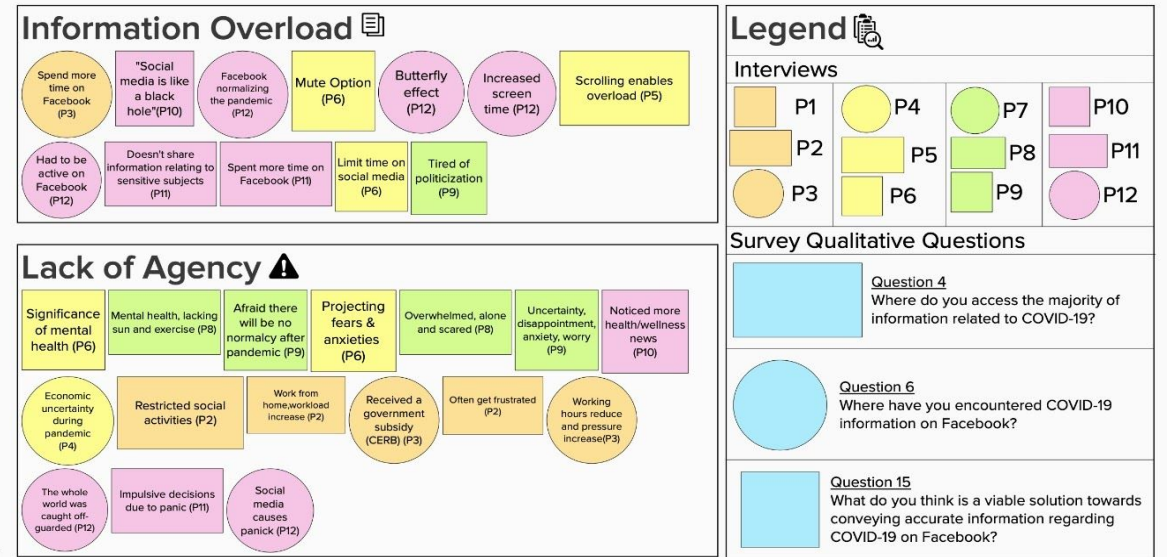| Mean	Median	Mode
2.818182	3	1

Question 9 :

Have you experienced information overload at anytime during the COVID-19 pandemic?

2. Interpretation

In the interpretation phase of the design process, the design team cleaned up data and analyzed their findings. Then, the findings were sorted on Mural into an Affinity Diagram (right), which shows main themes and relevant information from the primary and secondary sources. After collecting data, the design team used the primary research presented in the Affinity diagram to create our persona, Fiona Fonte (below).

Information Overload 📋

Spend more time on Facebook (P3)

"Social media is like a black hole"(P10)

Facebook normalizing the pandemic (P12)

Mute Option (P6)

Butterfly effect (P12)

Increased screen time (P12)

Scrolling enables overload (P5)

Had to be active on Facebook (P12)

Doesn't share information relating to sensitive subjects (P11)

Spent more time on Facebook (P11)

Limit time on social media (P6)

Tired of politicization (P9)

Lack of Agency ⚠

Significance of mental health (P6)

Mental health, lacking sun and exercise (P8)

Afraid there will be no normalcy after pandemic (P9)

Projecting fears & anxieties (P6)

Overwhelmed, alone and scared (P8)

Uncertainty, disappointment, anxiety, worry (P9)

Noticed more health/wellness news (P10)

Economic uncertainty during pandemic (P4)

Restricted social activities (P2)

Work from home,workload increase (P2)

Received a government subsidy (CERB) (P3)

Often get frustrated (P2)

Working hours reduce and pressure increase(P3)

The whole world was caught off-guarded (P12)

Impulsive decisions due to panic (P11)

Social media causes panick (P12)

Legend 🔍

Interviews

P1	P4	P7	P10
P2	P5	P8	P11
P3	P6	P9	P12

Survey Qualitative Questions

Question 4
Where do you access the majority of information related to COVID-19?

Question 6
Where have you encountered COVID-19 information on Facebook?

Question 15
What do you think is a viable solution towards conveying accurate information regarding COVID-19 on Facebook?

Affinity Diagram

Fiona Fonte played an essential role in the design process and represents the average Facebook user. The design team specified characteristics of Fiona, such as technical abilities and personality. To see a clearer view of this polished persona (left), visit

https://drive.google.com/file/d/1azfgIE9_CU9vgS74oCj_3DImI6jLO505/view.
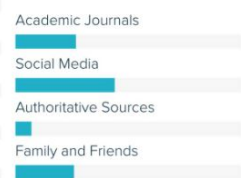

Bio

I'm an aspiring Counselling Psychologist currently completing my master's program at the University of Toronto. My work as a community volunteer has contributed to the growth of my personal network on Facebook. Due to the pandemic, I have spent a considerable amount of time on Facebook. I have noticed that my News Feed is filled with information regarding COVID-19. I find it hard to determine the source or verify this information because I'm used to being presented with academic articles. As they are peer-reviewed, the verification process becomes the author's responsibility.

I find myself passively accepting the information posted by my own network of family, friends, and colleagues. I would like Facebook to create an environment that prioritizes fact-checking and promotes verified sources. These tools would enable me to interact with the platform as an informed user.
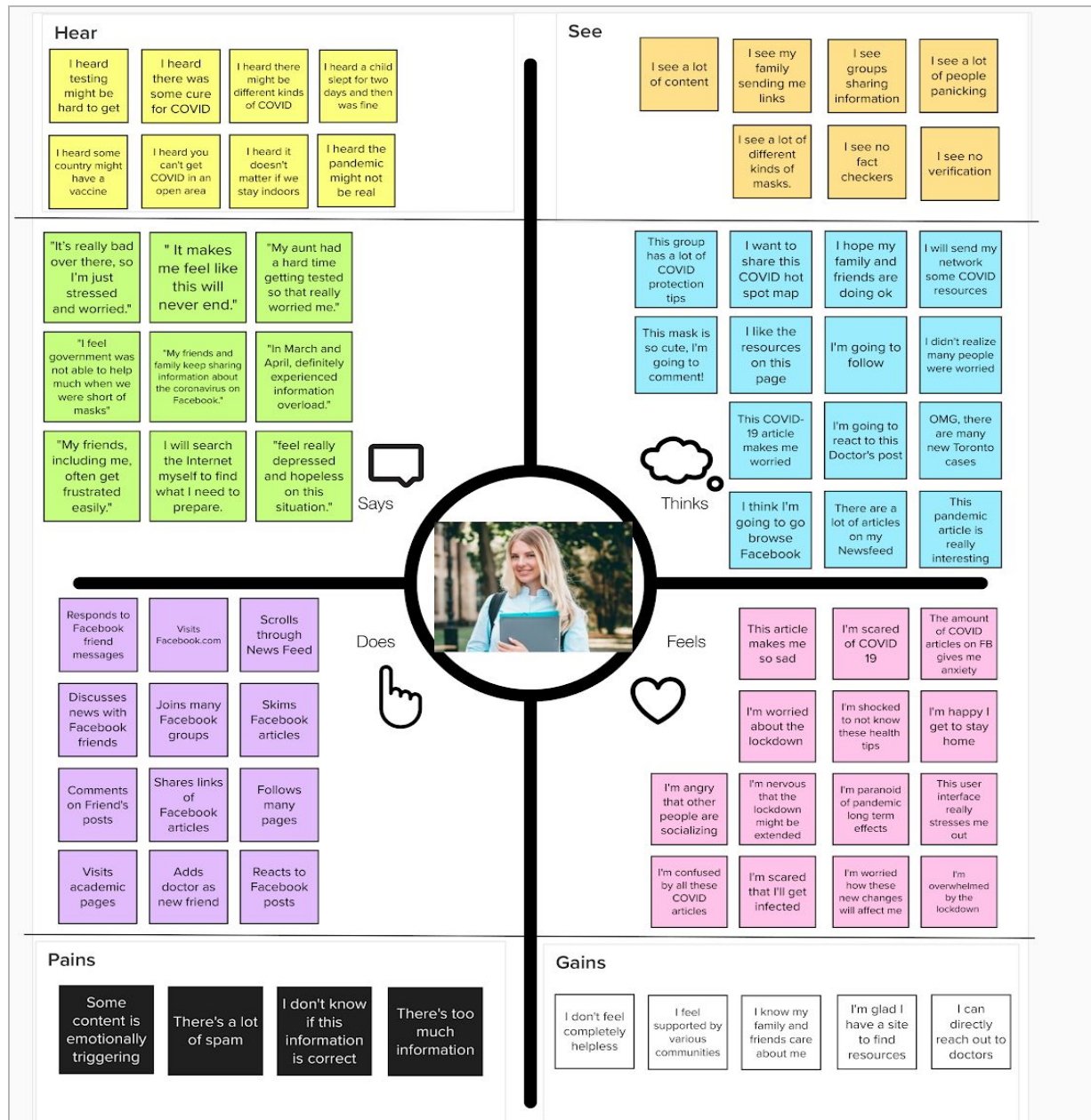
"A lot of information is being presented to me.""

Age: 24
Work: Community Volunteer for Salvation Army
Family: Single
Location: Toronto, ON
Character: Master's Student

Personality

Introvert — Extrovert
Thinking — Feeling
Adventurous — Cautious
Impatient — Patient

Technical Abilities

Research
Read
Fact-check
Distinguish misinformation
Share verified information

Preferred Sources of Information

Academic Journals
Social Media
Authoritative Sources
Family and Friends

The next step was the empathy map (left), which is a holistic exploration of Fiona Fonte and her experiences with COVID-19 misinformation on Facebook. The design team explored eight feelings and senses of Fiona to help the design team better understand the target user's pain points, values, motivations, feelings, and behaviors. The design team explored eight dimensions for their empathy map: say, do, think, feel, pain, gain, hear, and see.

Then, the design team examined the journey of Fiona Fonte interacting with Facebook by utilizing data from our empathy map. The As-Is Scenario (below) was created to describe Fiona's behavior on Facebook as well as her interactions with COVID-19 information on Facebook. Five steps were explored: prepare, explore, interact, verify, and spread. WIthin the subsections, the design team decided that "Thinking and Explore" and "Doing and Verify" had the most potential for improvement.
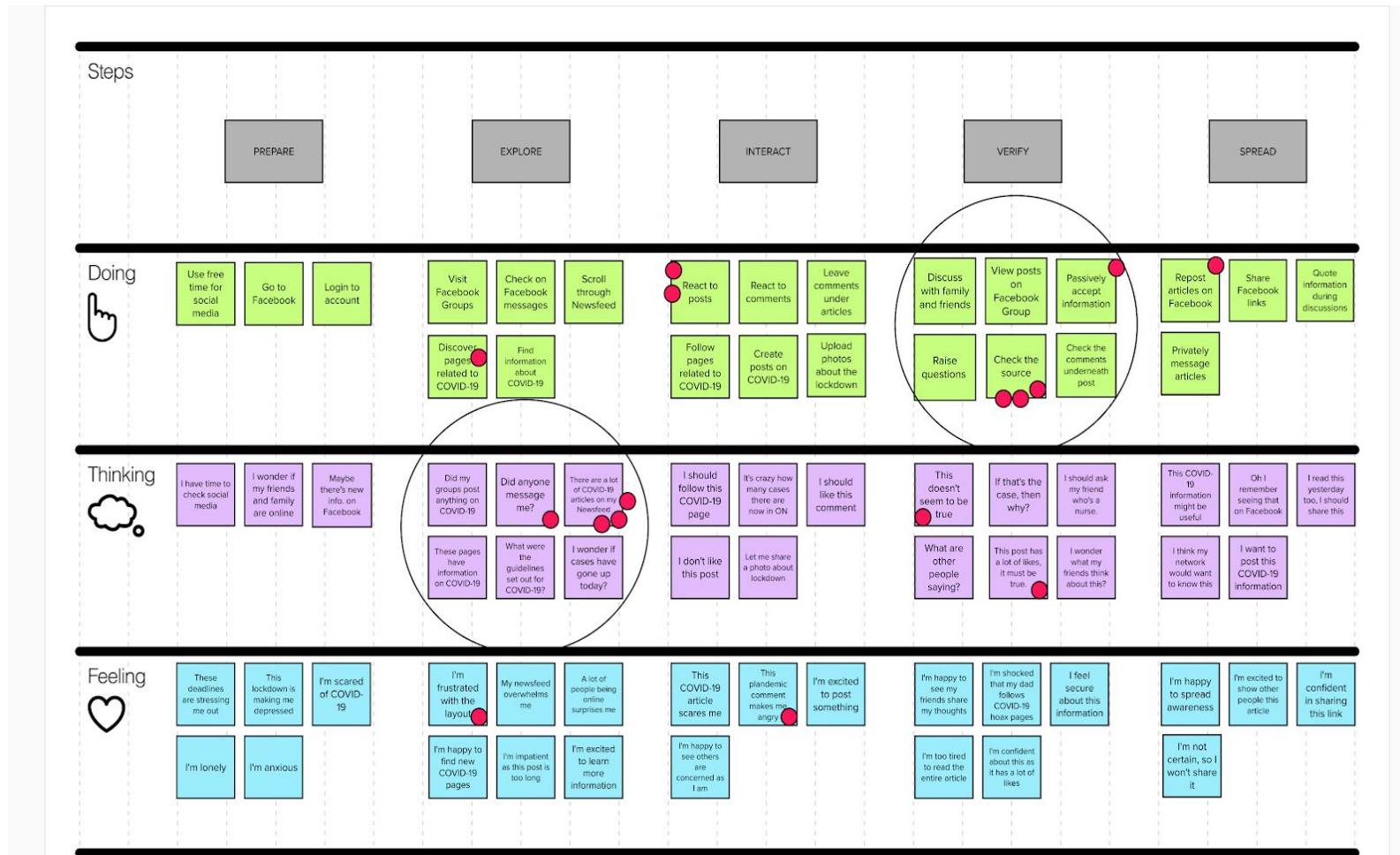
3. Ideation

In the Ideation phase of the design process, the design team pinpointed specific problems that they wanted their final project to address through the use of need statements. These statements were rewritten multiple times to ensure that they were user-centric and representative of regular Facebook user needs. Based on these need statements, all members of the design team brainstormed many features that could be implemented to address these needs. These feature ideas were then organized into idea clusters (right), which were organized by theme and helped the design team pinpoint common feature ideas. Throughout the entire process, the four members of the design team were constantly debating and improving parts of the design process. There were many debates on the benefits of implementing certain features as well as the obstacles that would be faced and the problems that might occur. In this part of the process, the design team was focused not only on feasibility but also on optimizing the benefits for users.
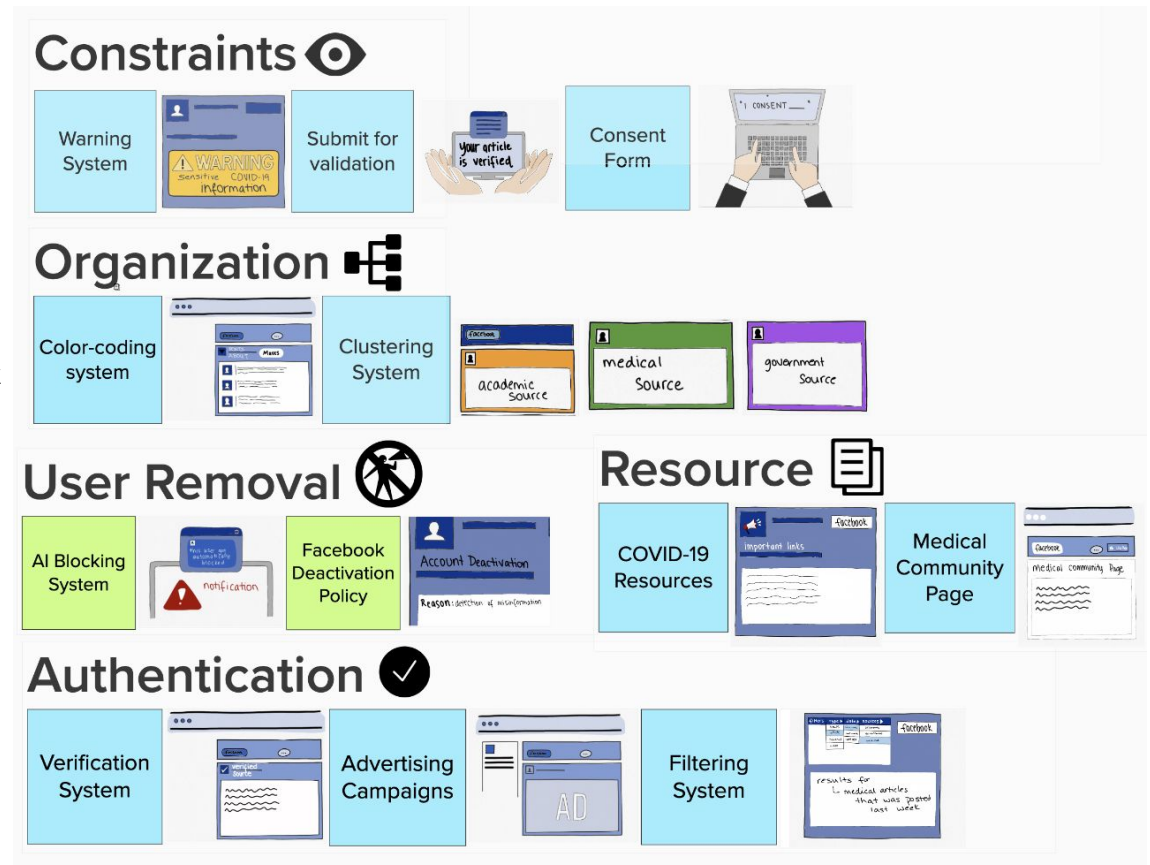
The ideas were then placed on a prioritization grid (below) to determine which features would be the most effective at achieving the
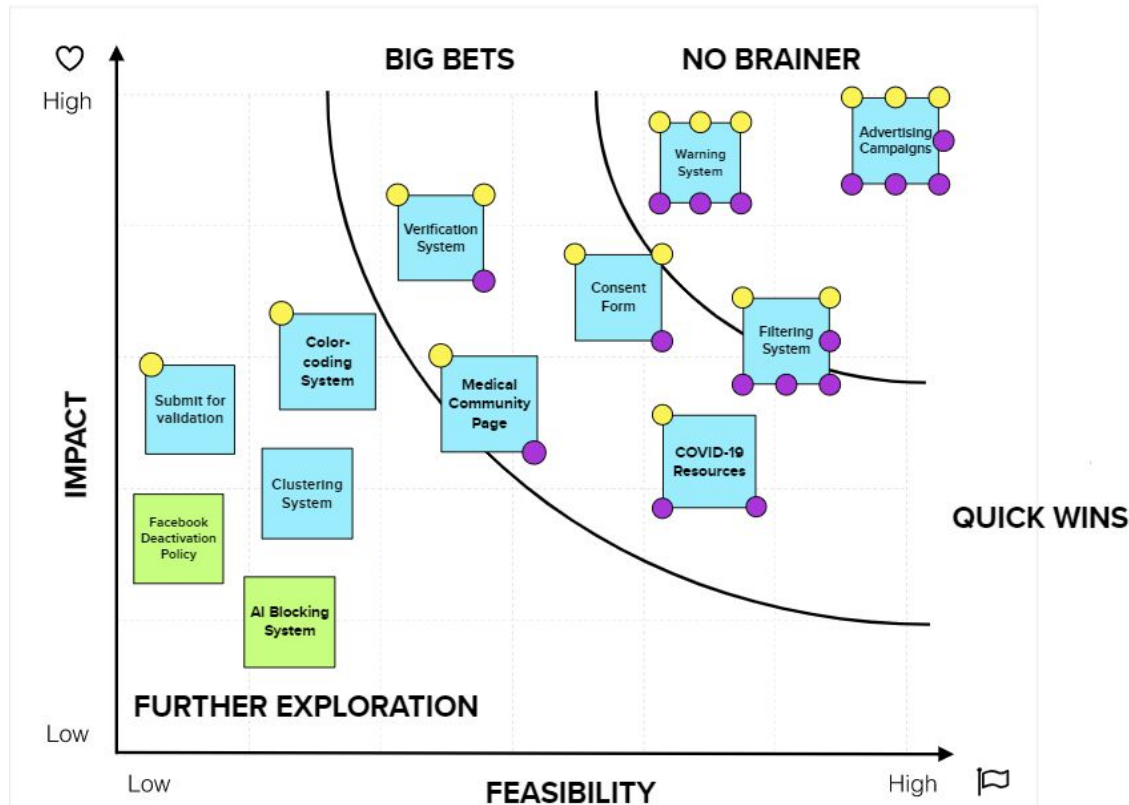
design team's goals and which features would be the most implementable. The design team discussed Fiona's experience on Facebook and although the design team had some overlapping opinions, there was division on the effectiveness and feasibility of each idea for Fiona. Four votes for each member of the design team were then cast based on impact (yellow dots) and feasibility (purple dots). Through discussion, voting, and rearranging, the design team was able to come to the important consensus on ideas that would cover all of Fiona's needs.

4. Experimentation

In the experimentation phase of the design process, the design team created a table of hypotheses to determine the effects of implemented features and created a To-Be Scenario (below) to visualize Fiona's journey navigating COVID-19 information on Facebook. The design team discussed how Fiona Fonte's"Accessing and Sharing Verified COVID-19 Information on Facebook" journey should progress and simplified the steps to "On Boarding to Facebook", "Locate verified information on Facebook", and finally "Discover and Share COVID-19 verified information on Facebook." Below, the characteristics of each step are written and divided into things Fiona is "Doing," "Thinking," and "Feeling."

After all these

visualizations, it was finally time to start creating features. In the experimentation phase, the design team created low-fidelity prototypes first and tested them on a few willing interview participants. Feedback was gathered and appropriate changes were made before the creation of the medium-fidelity prototype, which was mainly done by Selin. These were created on Balsamiq and allowed testers to interact with the UI and experience COVID-19 Informer's features. Some changes were made as the design team clicked through this prototype in order to create a better user experience. The pictures from the medium-fidelity prototype can be seen on the first page of the case study where COVID-19 Informer was introduced.

5. Evolution

In the Discovery stage, the initial problem space stated was that the design would create an information system for Facebook that targets COVID-19 misinformation. Thus, this design would accomplish facilitating access to accurate information for the general public. However, the usability testing of the low-fidelity prototype demonstrated that the problem space had to be reconfigured to Fiona Fonte's needs. Therefore, the design challenge transformed into facilitating navigation, not access, of COVID-19 content on Facebook. In the Interpretation stage, the group enjoyed creating a persona based on our primary research. However, this new experience made it difficult to gage the thoughts of Fiona Fonte. This led to discussions into feature-centric and designer-centric approaches during the design process. This resulted in a substandard as-is scenario. The design team came to this realization during the development of the needs statements in the Ideation stage. The design team ensured that Fiona Fonte was the center in the generation of broad, conceptual ideas.

The design team liked the creative parts of the project such as generating ideas in the Ideation stage and prototyping in the Experimentation stage. The design team used a combination of horizontal and vertical prototyping in order to transition from the main page to the four features. However, the development of the hypothesis table was frustrating as it involved a strong grasp of the English language. The design team revisited these statements on six separate occasions as the design team was not proficient at wordsmithing. However, this process was important as the design team knew these statements were vital in translating our ideas into features.