



# ESPRESSO

*The social media refresh you actually need.*

Meet the team (CERTIFIED SQUAD)

- Abdelrahman SAYED AHMED
- Ahmed KHATER

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# *1. Problem / Solution*

Excessive social media usage has become a growing problem in recent years, with many individuals spending excessive amounts of time on social media platforms. This problem can have a negative impact on an individual's mental and physical health, as well as their relationships and overall well-being.

One of the main causes of excessive social media usage is the addictive nature of these platforms. Social media companies use algorithms and other techniques to keep users engaged for as long as possible, leading to a "feedback loop" of constant notifications and updates that can be difficult to resist. Additionally, the fear of missing out (FOMO) can also contribute to excessive social media usage, as individuals may feel the need to constantly check for updates and notifications to stay connected with their friends and social networks.

Our proposed solution is an alternative a new improved platform, a minimal, well-structured, and trusted source of information and news, offering new functionalities along with minimizing the distracting features.

## *2. NeedFinding*

### **a. Domain**

Our domain of interest is the Fear of missing out (FOMO), which is considered one of the main causes for the excessive social media usage.

Our target population is everyone already familiar and a user of social media, where the usage of our app would offer a strong alternative for traditional social media experience while reducing their screen time.

## **b. Interviews (First Round)**

For the first round of interviews, we chose 3 participants to understand how they deal with social media and more important whether they aware of the negative impact of social media on their lives or not.

### **i. Interviews Methodologies and procedures**

#### **Interview 1**

<b><i>Interviewee</i></b>	Mohamed MOUSTAFA
<b><i>Occupation</i></b>	Senior Social media marketer and SEO specialist.
<b><i>Interviewers</i></b>	Abdelrahman SAYED AHMED (Leading)
	Ahmed KHATER (Taking Notes)
<b><i>Modality</i></b>	Remote (via Zoom)
<b><i>Used material</i></b>	Meeting/Recording via zoom platform

#### **Questions**

- What are your thoughts about social media nowadays?
- How do you typically use social media?
- What kind of applications are you using mostly and why not others?
- Did you try cutting yourself off social media for a certain period?
- Do you typically interact with people on social media? and why?
- How often do you check your social media, and what triggers that?
- Can you state 3 pros and 3 cons of using social media?
- What methods did you use to cut off your social media usage?
- Do you rely on social media as a source for news? and how do you react to it?
- How important is social media in your field , (follow up : do you use any alternatives)?
- How long have you been working in the field of social media marketing and what's your current experience level ?
- Do you think there is any room for improvement in your field ?

## **Interview 2**

<b><i>Interviewee</i></b>	Mostafa ASADOLLAHY
<b><i>Occupation</i></b>	Masters student at polticenico di Torino
<b><i>Interviewers</i></b>	Chunbiao HUANG (Leading and taking notes)
<b><i>Modality</i></b>	In person
<b><i>Used material</i></b>	Phone camera and recorder

### **Questions**

- What kind of social application are you using most frequently?
- In generally, when you will use it. Suggestion for this application
- What is your purpose of using social media websites?
- Will you post pictures, comments, etc, on your social media accounts?
- Do you feel good if your friends comment under your post?
- Do you recommend children to use social media or not? Why?
- Will you spend long time to chat with your friends or family? Which way? Online or in person? What's your opinion?
- Do you through social medial application to make friends?
- If you read something on social medial websites and you have opinion about it, would you share it, or keep it to yourself?

### **Interview 3**

<b><i>Interviewee</i></b>	Khaled SHAKER
<b><i>Occupation</i></b>	Doctor (General Practitioner)
<b><i>Interviewers</i></b>	Ahmed KHATER (Leading)
	Abdelrahman SAYED AHMED (Taking Notes)
<b><i>Modality</i></b>	In Person
<b><i>Used material</i></b>	Phone camera and recorder

### **Questions**

- Is social media part from your daily routine?
- Tell us about your typical social media usage.
- How long you think you are using social media daily?
- On a scale of 1 to 5 rate how much you think you use social media in your normal day?, Is it the amount you want ?
- Do you use some social media apps more than others? (List them in order) and why?
- Do you follow up with recent news (local, worldwide) through social media?
- Does what you see in social media affects your day?
- How do you think our relationships with families/friends are affected with/without social media?
- Do you typically interact with people on social media? or just silent follower?
- Do you use social media to contact or deliver information to you patients?
- From professional point of view, what is the impact of social media of public awareness with topic related to health?
- What was the role social media played in COVID?
- Did you have any remarkable situation because of people wrongly using social media?
- Do you think (or happen to see) a patient who was directly affected by social media, either mentally or physically?



## ii. Results

From the first round of interviews, we had a primitive insight on:

- Why do users use social media?
- The benefits / drawbacks of using social media on daily basis.
- How does social media platforms trap users into wasting long time?
- Are users aware about how much time they use social media?

### Main quotes and answers summary:

#### MOUSTAFA

- We market using tools provided by social media websites ***to track users' interaction, habits, and interests.***
- Aside from using social media for fun, I use it ***to find people with similar work and life interests*** which is important to improve myself.
- Reels make me use social media more than I would like to, as ***I lose track of time.***
- I usually use LinkedIn, Facebook and Instagram, I have a twitter account, but I don't use It usually, it just doesn't feel intimate or friendly as Facebook, and also it has other community and way of interaction.
- I ***did try to cut myself of social media for almost 5 months***, it was good experience, and it changed the way I use social media, ***but I felt left out and did not understand most of trending things*** at the time.
- I always try to verify the news I see on social media, but I see it as a drawback that sad news turns the feeds into mourning it reflects on everybody (also me) so sometimes I just stop using it to keep my mood better.

## **ASADOLLAHY**

- YouTube is my most frequently used social medial application. Most important reason is ***I can learn a lot from some videos related*** technology.
- Because ***I can't meet my parents, so chatting online is primary way***. However, for friends I usually chat face to face.

## **SHAKER**

- ***I use social media in my spare time*** so it's not overcoming my priorities, but I think that time sometimes can be used better.
- In Italy Facebook is used to recruit for job offers and updates more than LinkedIn in the medical field.
- I always take human error/bias into consideration while seeing news on social media, I usually refer to multiple authenticated sources to be sure.
- During covid pandemic, ***sometimes I was stressed expecting the worse at work***, after seeing news about numbers of infected people and the exaggerated the situation.
- I don't share my private life on social media, ***and social media never reflect the real personality***.
- ***A lot of people suffer from mental and psychological issues due to the stress and lifestyle seen on social media***, things like anxiety and eating disorders are very common.
- ***Social media gave opportunity to everyone to share their opinions*** , sometimes in fields that needs experts like medical information which ***causes problems for us doctors and chaos among people*** , which subsequently decreases the awareness and affect how people deal with mild symptoms.

## c. Initial synthesis

### i. Brainstormed needs

- Users need a time-wise controlled social media platform.
- Reliable source of news.
- More honest, less stressing lifestyle examples.
- Good, creative, and well-organized design.
- Less distraction.
- Good way to connect with people who have same interests .
- Ways to keep contact with friends/relatives and their life events.
- A fun way to pass spare time with a value.
- Deal with the fear of missing out (FOMO).
- Easier way to control feeds and customizing it.

### ii. Most insightful user needs.

#### 1- Dealing with Fear of missing out (FOMO)

ALL THE PARTICIPANTS COMPLAINED ABOUT HAVING TO BE REGULARLY AVAILABLE ON SOCIAL MEDIA TO STAY UPDATED ON TRENDS AND NEWS.

#### 2- Time-wised controlled social media platform

USERS EXPRESSED THE PROBLEM OF BEING TRAPPED INTO INFINITE SCROLLING AND LOSING TRACK OF TIME WHILE USING SOCIAL MEDIA.

#### 3- User needs less distraction.

A MAIN CAUSE OF INEFFICIENCY FOR USERS WAS GETTING DISTRACTED BY THEIR SMARTPHONES FOR VARIOUS THINGS LIKE NOTIFICATIONS AND MESSAGES.

### iii. Most focused domain

OUR MOST FOCUSED DOMAIN IS FEAR OF MISSING OUT (FOMO)

WE CHOSE THIS USER NEED BECAUSE IT'S CONSIDERED ONE OF THE MAIN CAUSES FOR USERS EITHER TO STAY ON SOCIAL MEDIA FOR A LONG TIME OR BEING ATTACHED TO IT AND FINDING DIFFICULTY TO STAY OFF IT FOR LONG PERIODS OF TIME.

## **d. Interviews (Second Round)**

### **i. Interviews Methodologies and procedures**

#### **Interview 1**

<b><i>Interviewee</i></b>	Mahmoud SAIED
<b><i>Occupation</i></b>	Bachelors' student.
<b><i>Interviewers</i></b>	Abdelrahman SAYED AHMED (Leading)
	Ahmed KHATER (Taking Notes)
<b><i>Modality</i></b>	In person
<b><i>Used material</i></b>	Phone camera and recorder

#### **Questions**

- How do you typically use social media?
- How much time do you think you use social media every day?
- Do you rely on social media to follow up with specific topics or categories, for example (politics, sports, science, etc.)?
- How much do you trust what you read on social media?
- Do you typically interact with people on social media? and why?
- If you read something on social media and you have opinion about it, would you share it, or keep it to yourself?
- Do you think social media affects self-confidence?
- Do you feel the need to open social media just to check what is happening right now?
- Do you interact with other people on social media or in real life to talk about social media trends?
- Did you try to leave social media for a while before?
- Do you feel obligated to know trends on social media and always follow up with it?
- Do you think some social media apps are more important than others?
- Are you interested in knowing the top trends on most of social media apps? or only the ones that you use the most?
- Can you tell us 2 good things and 2 bad things about current social media platforms?

## **Interview 2**

<b><i>Interviewee</i></b>	Francesco
<b><i>Occupation</i></b>	Software Engineer.
<b><i>Interviewers</i></b>	Salem ABOUZAID (Leading)
	Chunbiao HUANG (Taking notes)
<b><i>Modality</i></b>	In Person
<b><i>Used material</i></b>	Meeting/Recording via zoom platform

### **Questions**

- To what extent do you use social media in your everyday life?
- Do you rely on social media as a source of news?
- Do you trust the news on social media?
- Do you follow the trends on social media?
- Do you experience any negative effects from social media on your life?
- Did you try cutting yourself off social media for a while?
- What kind of problems did you face in that period?
- If you stop using social media, what features you are going to miss?
- Is there a specific platform you follow to get trusted information?
- Do you think it is a good idea to integrate social media with another app that verifies the news you see on social media?

## ii. Results

THE MAIN KEY QUOTES THAT CAUGHT OUR ATTENTION DURING THE SECOND ROUND OF INTERVIEWS

### SAIED

- I mostly use Facebook; I get updates and information about all my relatives/friends from their social media.
- I usually ***watch useful YouTube videos before sleeping*** for some historical videos or documentaries.
- Interactions and feedbacks on my posts or photos are important to me, it was a reason ***why I stopped using Instagram because I don't get enough interactions.***
- I consider ***social media to be my primary source of news.***
- Even when I've cut myself of social media, I sought following trends at that moment to ***relate to what people are discussing.***
- Once I open reels, ***I get stuck in a loop of scrolling*** through them.
- I think I will use a new social media platform if it has something special or new to offer.



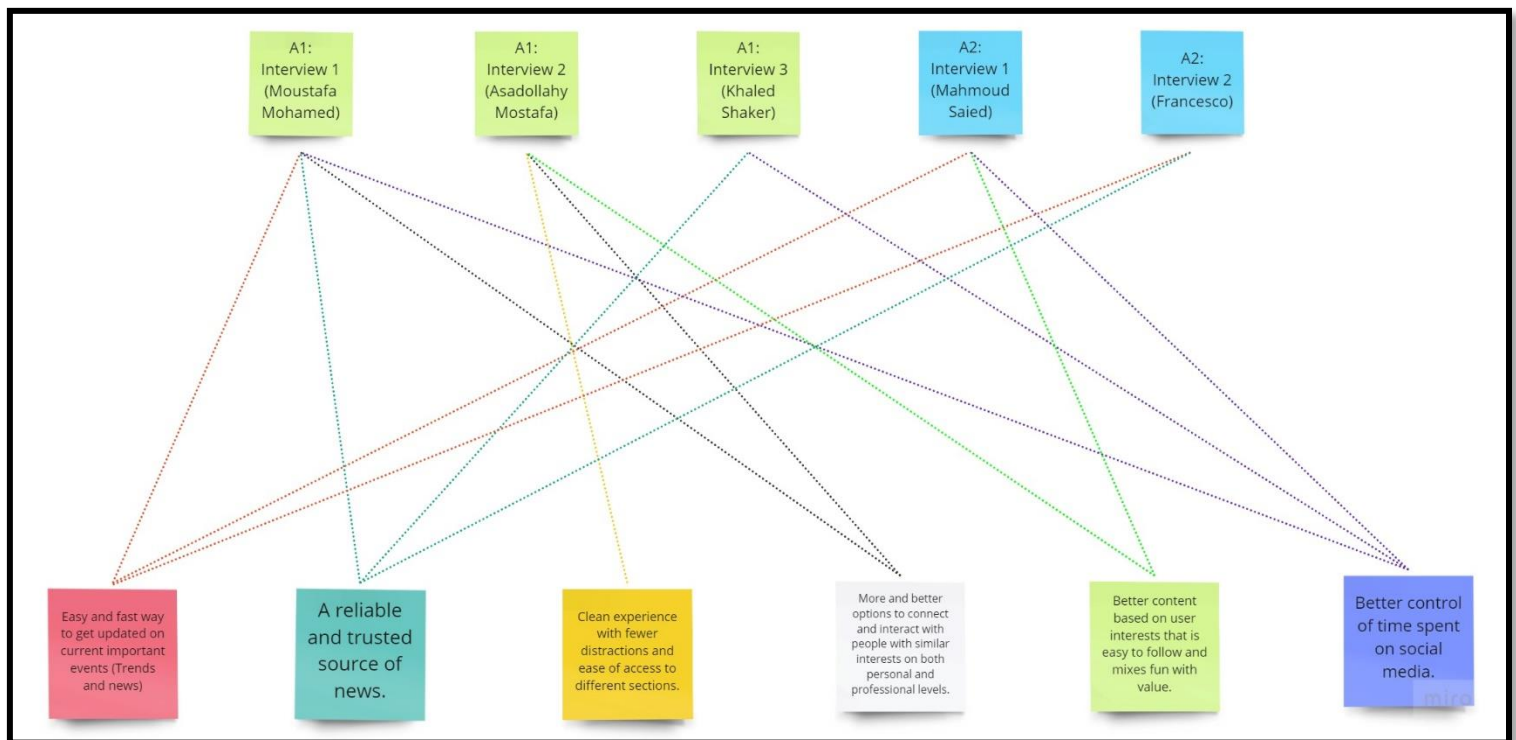
## FRANCESCO

- I listen to podcast to be updated with news related to interests.
- ***Misleading information are very common on social media***, so you must be a little sceptical whenever you read a post about an important topic.
- ***I like to keep up with what my friends are doing.***
- I follow the trends because my friends do so, and I don't like that when they talk about it, ***and I can't participate because I don't know what they are talking about.***
- I stopped using social media many times before, but I always go back to using them again. ***Getting away from social media is helpful in some situations, but I think it's better to find balance in using it.***
- Social media is important to know what your family and friends are doing; ***they share important moment with us on social media.***
- Social media is used ***by influencers to affect the normal user's opinion about some topics or bias them to a decision.***

## e. Synthesis

### i. Brainstormed user needs

- 1- Users need to connect with people who share the same interests to share his thoughts and talk together in a more productive way.
- 2- Users need to reduce or eliminate distractions caused by social media to focus on more important tasks.
- 3- Users need to know if they can trust pieces of information on social media posts, especially when it is related to sensitive topics like health.
- 4- Users need an easy way to connect with family and friends and share special moments.
- 5- Users need to reduce the surrounding negativity sometimes, or undesired interactions with some people.
- 6- Users need to reduce time wasted on social media and invest it in a better way.

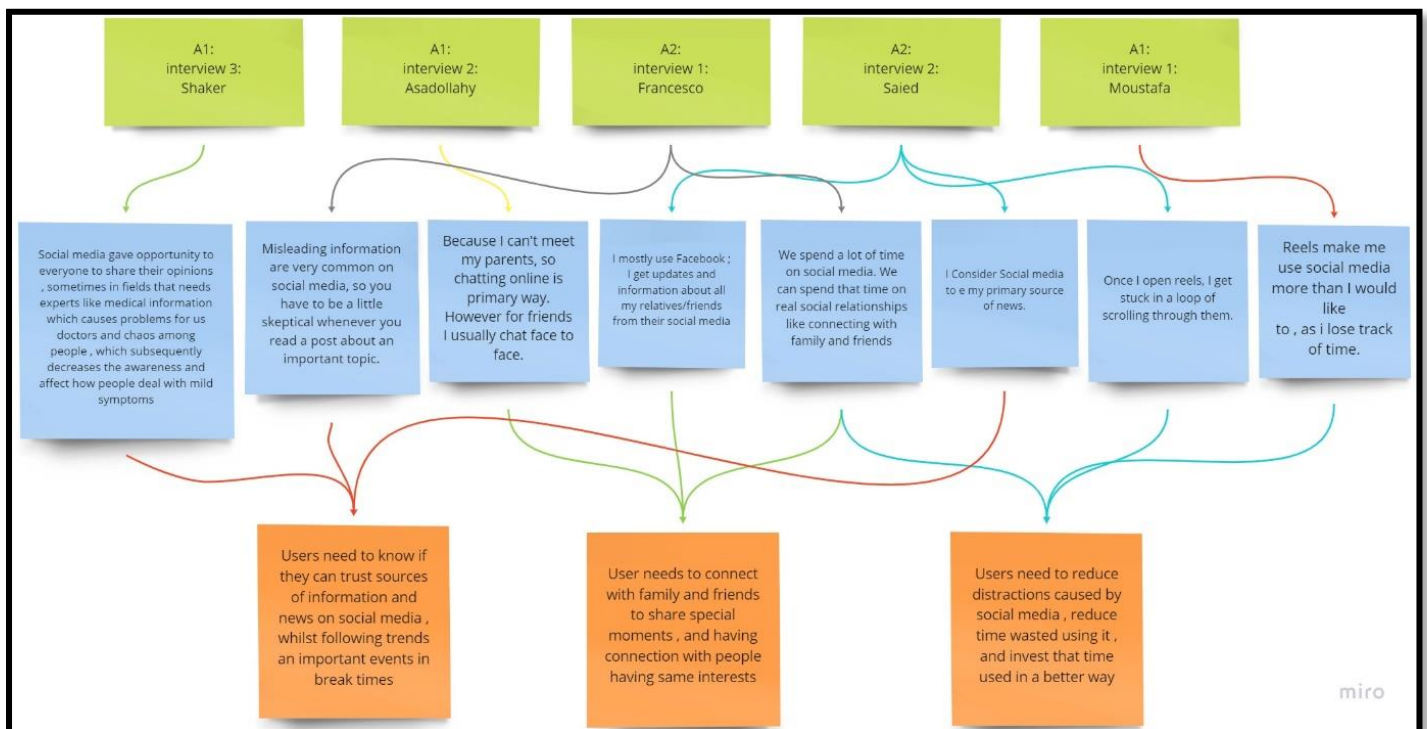




## ii. The deep user needs

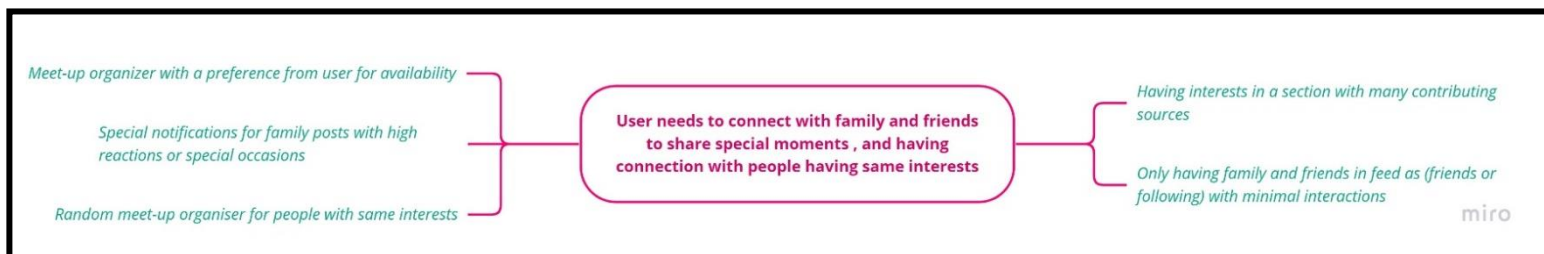
- 1- Users need to know if they can trust sources of information and news on social media, whilst following trends an important event in break times.
- 2- User needs to connect with family and friends to share special moments and having connection with people having same interests.
- 3- Users need to reduce distractions caused by social media, reduce time wasted using it, and invest that time used in a better way.

WE CONSIDER THESE DEEP USER NEEDS AS A PART OF THE CORE PROBLEM OF THE EXCESSIVE SOCIAL MEDIA USAGE NOWADAYS ACCORDING TO THE RESULTS WE GOT FROM THE INTERVIEWS.



## f. Solutions

For the solutions we started brainstorming for solutions starting from the deep user needs, as a result we had several solutions as listed in the following figures, where solutions are



connected to the deep user needs

## Top solution

As a top and final solution, we decided to make a new application focused on providing the user with the latest trends in a simple form, without overwhelming him with a lot of distractions.

Moreover, making a new application/platform starting from zero would allow to integrate many features/utilities for the user to satisfy many needs.

## 3. Tasks and Storyboard

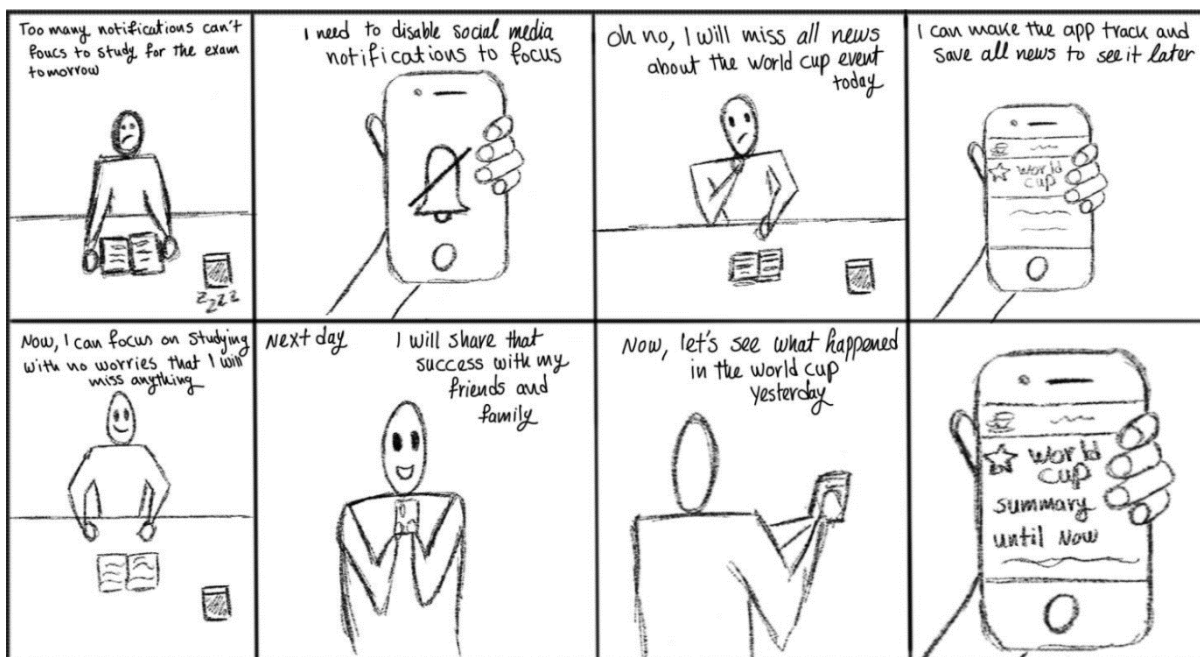
### a. Tasks

1. **Simple:** Checking the ongoing trends.
2. **Moderate:** Sharing a special personal event.
3. **Complex:** See only "Tech" trends that I can read its summary in 5 minutes.

These tasks were chosen because they resembles a good part of the usage of our interviewees and the typical deep user needs we found during the interviews .

They are important to our target population because they represent a good part of the typical use of social media throughout the day , they represent the outcome needed by the user (Checking trends – sharing something)

### b. Storyboard



The previous storyboard simply demonstrates one of the main problems of social media usage, where users get distracted and sometimes trapped in some applications, then it provides the solution where at the end the user is satisfied and catching up with the news and sharing updates with friends, plus having the job on hand done.

## Strengths and weaknesses of the storyboard:

### STRENGTHS

- It shows the main user need which is issue of being attached to social media due to fear of missing out.
- User continues to use the social media as supposed to, sharing his updates and get updated with news without excessive usage.

### WEAKNESSES

- Doesn't show how user uses the social media for getting a value (Useful content - complex task)
- Usage timer/countdown is not demonstrated

The storyboard achieves the identified tasks and user need by represents the key user needs, as the user uses the application to help him focus more on the job on hand, while not worrying to miss some event or continuously checking for updates and getting distracted, knowing that everything will be summarized and available when he has free time, and the user achieves this goal by doing some actions related to the first 2 tasks, he checks what is trending, marks a trend as priority., and later he shares a special moment with his family and friends.

## ***4. Low-Fidelity Prototype***

### **a. Modalities**

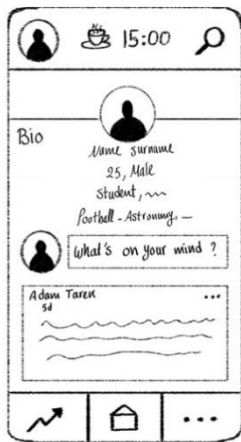
For a social media application we did not have much of a choice, the suggested modalities were touch screen, voice commands and AR/VR.

The AR/VR even though it sounds like a creative idea , it does not contribute to the main objective to reduce the social media usage and the screen time, while the other 2 options are more familiar for users to interact with social media.

At the end the selected modalities were Touch screen and voice commands, both to be used on smartphones and wearables.

## b. Paper Prototype

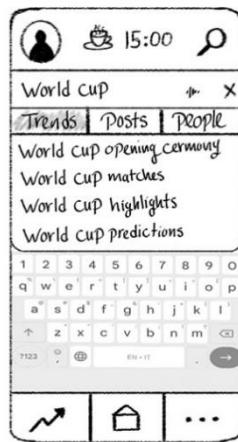
### Prototype 1



Profile



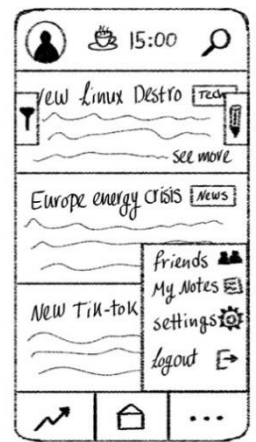
Break Ended



Search



Trends



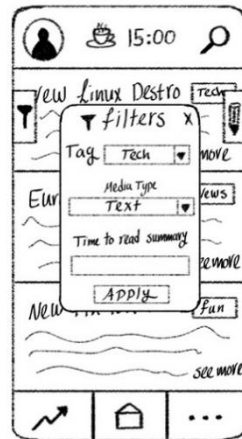
Bottom Bar  
Options



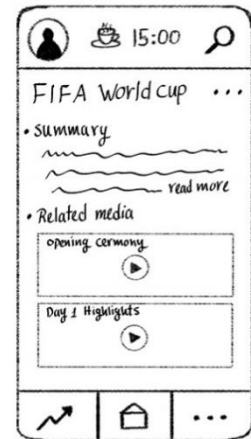
Add post



Trend options

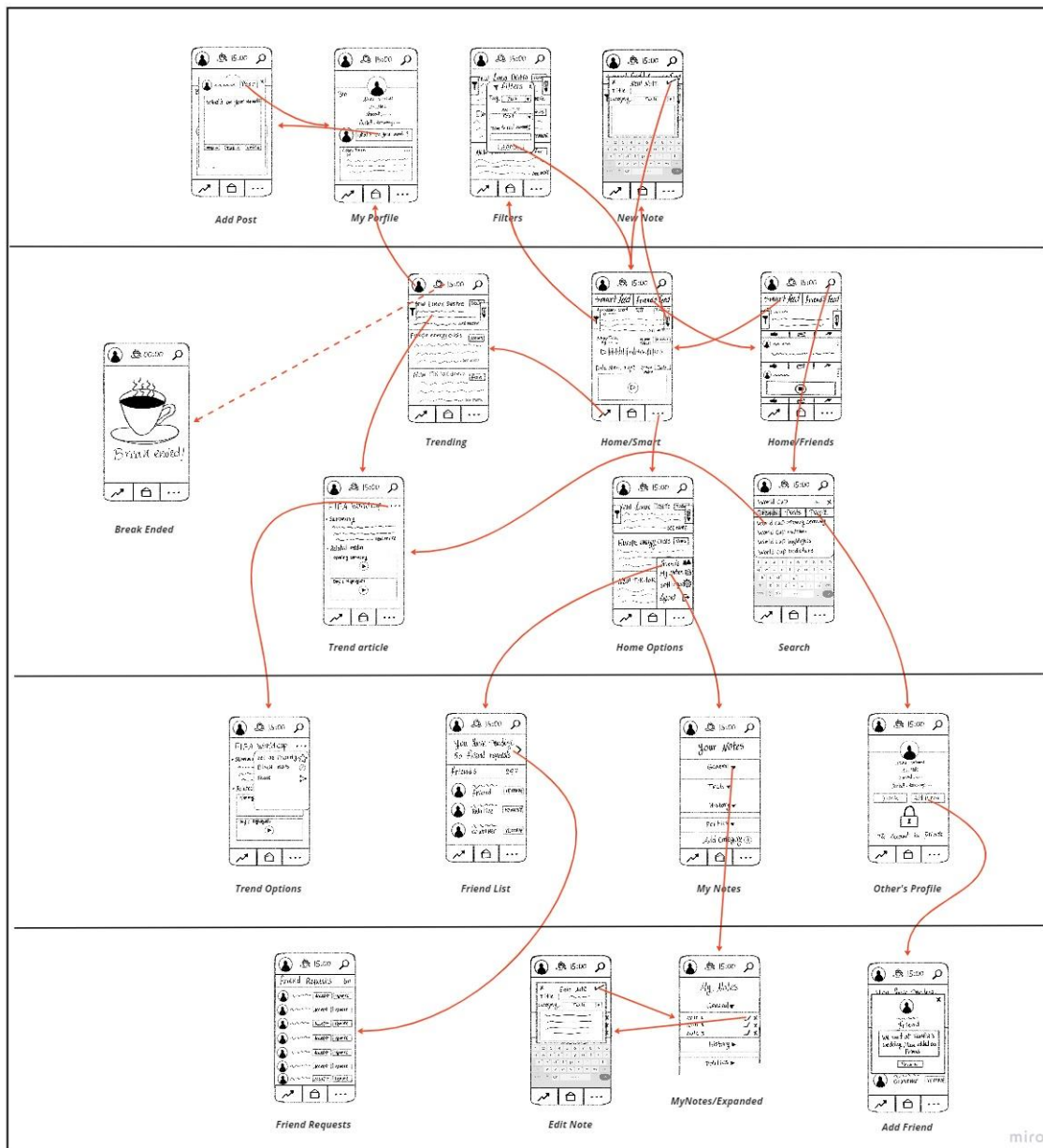


Filters



Trend summary

# High-level Flow diagram



## Prototype 1 connected to:

**Storyboard:** User can easily check on the ongoing trends anytime and see a summary on what's going on without missing something or being left out, he also can share what he wants on his profile, all of this without being fixed on the phone scrolling with no end.

**Tasks:** The prototype offers a fast and straight forward way to accomplish the 3 tasks, several features offer the possibility to perform the tasks without being distracted

**Project goal:** The prototype offers a minimal interface with some needed features to reduce distraction, features like the note taking utility and the session timer that helps keeping user aware about the time he is spending on social media.



## Prototype 2

### High-level Flow diagram



### Prototype 2 is connected to:

**Storyboard**: User can use this to listen to a summary of a certain trend directly from his smart watch and set a timer to focus.

**Tasks**: The prototype offers only the possibility to check on the going on trends

**Project goal**: The prototype offers a minimal interface and a focus mode utility , which allows the user to check on the trends without being much distracted , along with easier accessibility using voice commands.

## c. Selection Rationale

### PROTOTYPE 1 PROS & CONS

#### PROS

- More suitable interface for social media usage and users are already familiar with using social media applications on mobile devices
- Many customizable options in implementation phase
- More options to the users for adding posts, taking notes and seeing videos.
- Controlled environment with good structure and doesn't distract the user either by notifications or infinite scrolling

#### CONS

- Same feeling of using a social media app on a mobile device may lead to excessive usage
- Relatively not a new idea and available on the market, and needs a strong motivation for the user to switch for it from ordinary satisfying social media apps.

### PROTOTYPE 2 PROS & CONS

#### PROS

- Easier to use and more minimal, user gets the needed piece of info using vocal commands.
- User doesn't need to use a mobile device, which protecting him from getting distracted either by espresso or other application.

#### CONS

- More error prone during speech-to-text conversion.
- Have very limited options for navigation and not very comfortable to read from.
- Accomplishes only few tasks and not scalable to do other things.
- Very small touch screen.



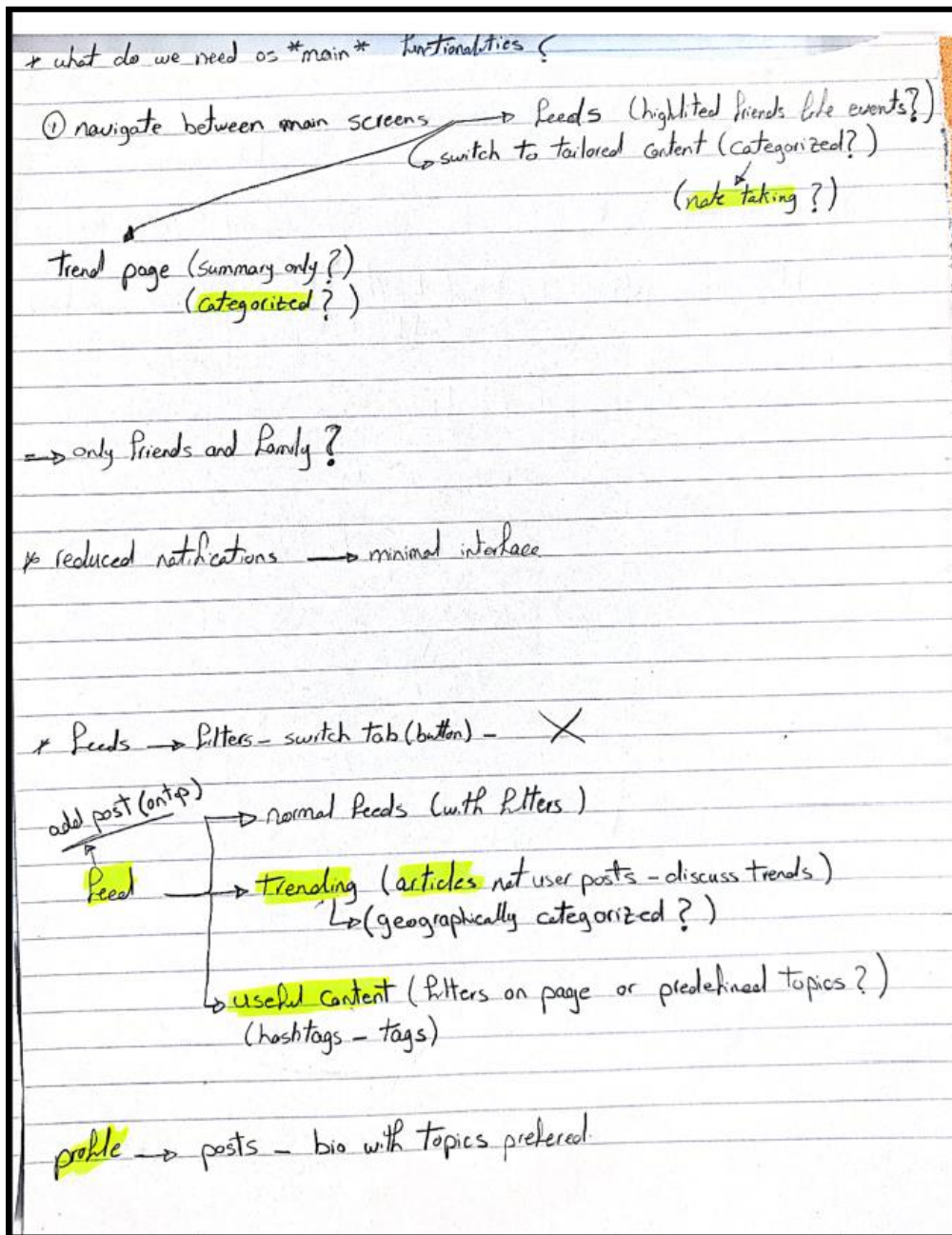
We choose prototype 1 –upon voting- as our final prototype, due to the several previously stated pros and cons, In summary:

- It covers more tasks and satisfies more user needs.
- Prototype 1 is more tangible than prototype 2.
- It's less prone to errors.
- Prototype 2 has some limits and not able to implement all kinds of functions.

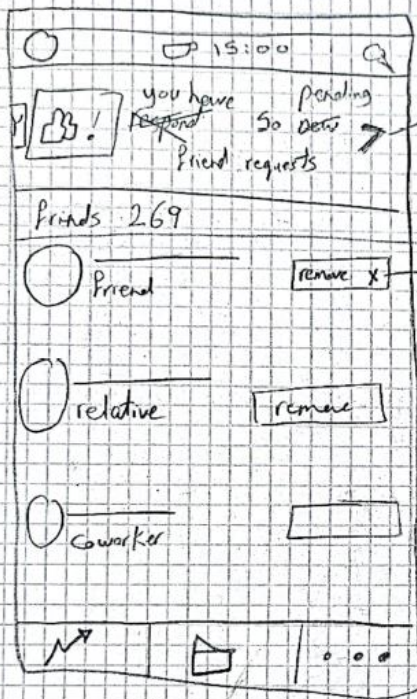
Moreover, we chose to move the voice commands and listening to articles features to prototype 1, this would increase the pros of prototype 1, and add accessibility options to the application plus making it faster to do many tasks and interact with the application in various situations.

## 5. Medium-Fidelity Prototype

### a. Sketches



Add post - Note utility → almost same



same page with accept - ignore

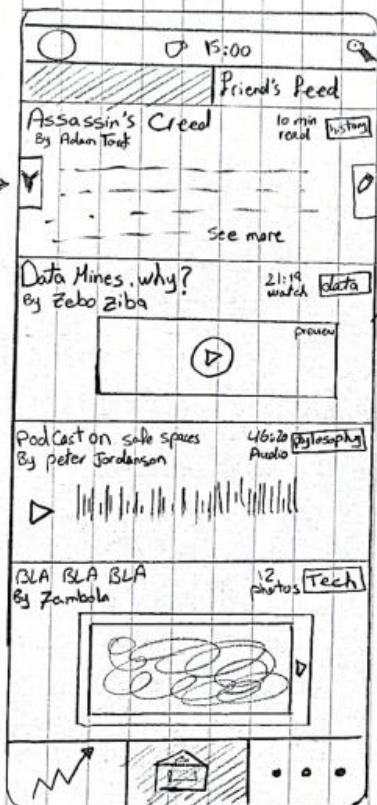
overlay for confirmation and reason  
→ other settings

\* Find a name for tailored - coffee  
Homepage - V.2

! trends are app created, hence available in all presentation Methods

• Feeds are determined to be

Filters  
e.g. language

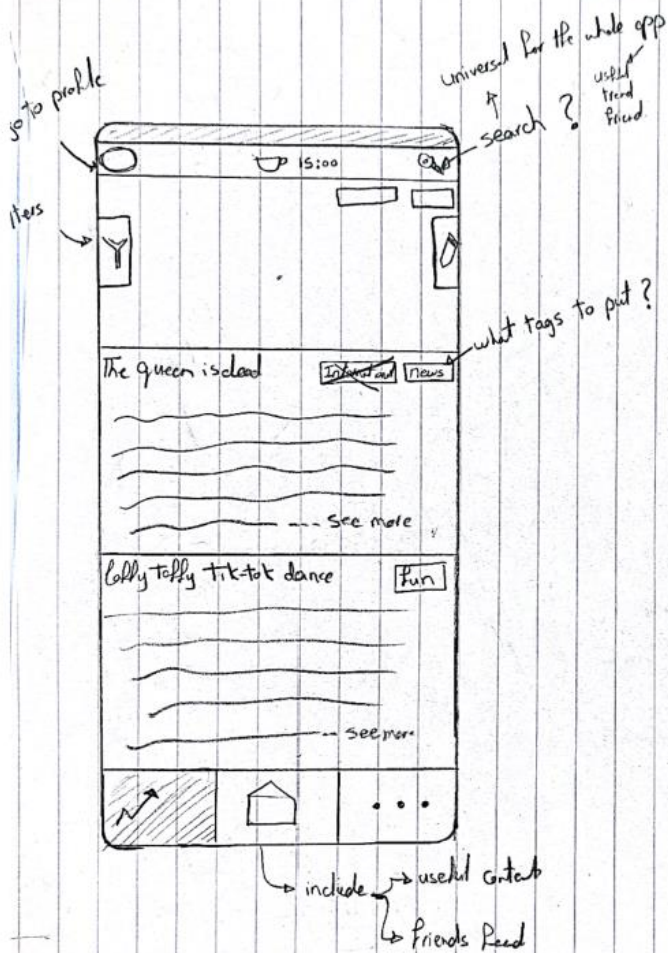


posted when?

general

- show Filters applied on top
- public for articles / private for personal
- search works by word
  - ↳ divided in main parts of app
    - useful
    - Notes
    - people
    - Trends
    - posts
- Draft Notes
  - ↳ open in help page?
- when to remove header with search? (Friends)



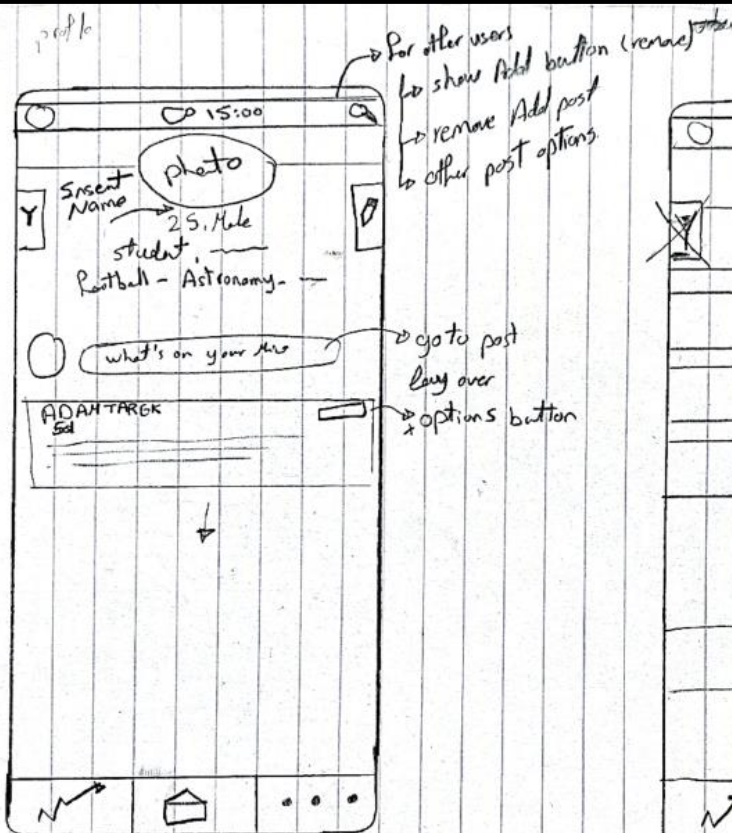


Trends as articles? → provide text - video - Audio - photos  
 trending - V.1  
 Filters on → geographics - news or general  
 international → tags → politics society  
 local → tags → fun  
 new → tags → what else?  
 sport → tags → sports incidents celebrities

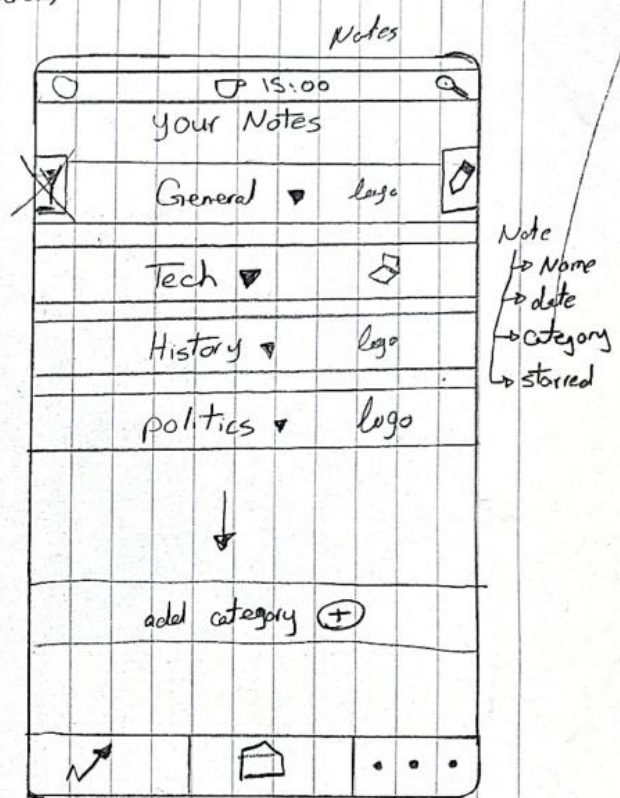
• what will search do? will it be fixed across pages?  
 • determine time per session as countdown  
 (or) Just counter?

\* Make a trend summary → for past period with likes #

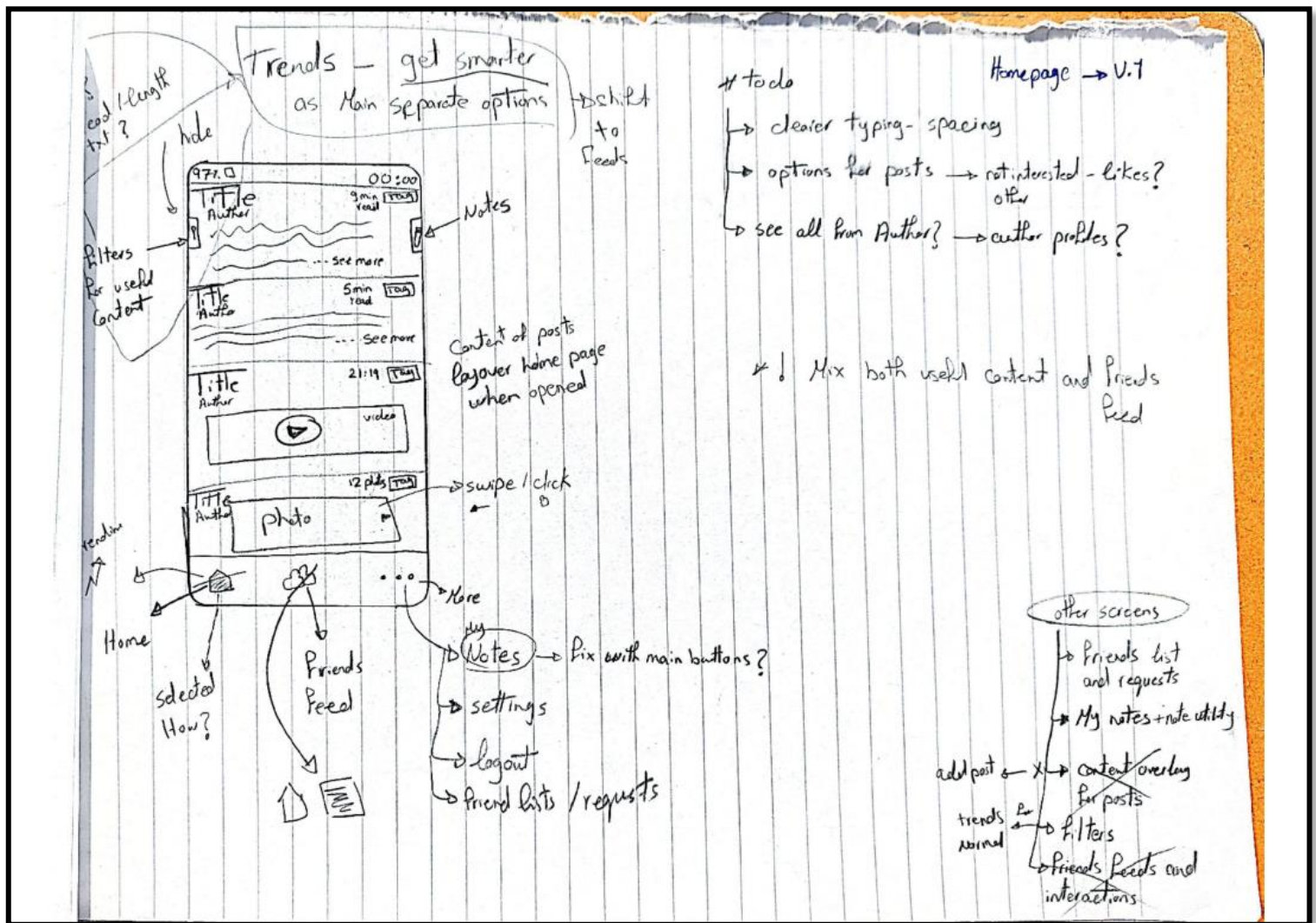
• geographics better in filters not tags.  
 • default eragation Method for content in settings



posts - bio - Add posts  
 less interaction or none? → No followers  
 to make all users equal → reward?  
 • No cover - yes background theme  
 • Chronological Mixed time line → can be filtered.



• categories → presets + customized categories.



## **b. Procedure**

For the Mid-Fi we used Figma, Abdelrahman prepared the rough sketches and the Figma template (Main page, theme, and some components) to work on, and then the prototype Implementation was divided among Abdelrahman, Khater and Chinbao.

### **Abdelrahman designed the following screens:**

- Smart feed
- Profile page as seen for non-friends.
- Profile page as seen for friends.
- Friend's page.
- Friend requests pages.
- Timer
- End of session
- Refined Chinbao's work

**Khater designed the following screens:**

- Friends feed
- Trending page
- Trend details and summary page
- Priority trends page
- Trend options menu

**Chinbao designed the following screens: (Most of them are redesigned by Abdelrahman)**

- Search page with variants
- Filters layover with variants
- Applied filters on trending page.
- Create new post layover.

**Salem's work was not complete in time and wasn't included in the final prototype.**

**Then all parts were put together and integrated as a final prototype.**

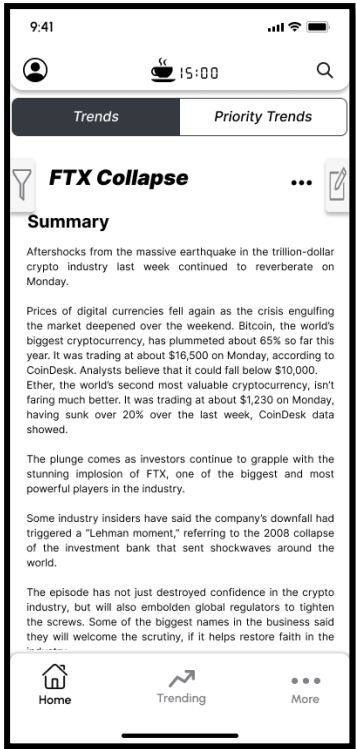
**T**he prototype covers all the defined tasks because it included all screens needed and actions to execute the defined tasks, even more screens that were made to make the prototype feel like a complete social media application like feeds pages both smart and friends, profile page, friends, and friends request, etc...

**T**he prototype addressed the limitations of the paper prototype by being more interactive and looking like a real application in black and white, also we refined some screens to look better and more modern like current social media apps and having almost all functionalities working so each clickable action is connected to its destination and doing something, and that was reflected in the Heuristic evaluation feedback.



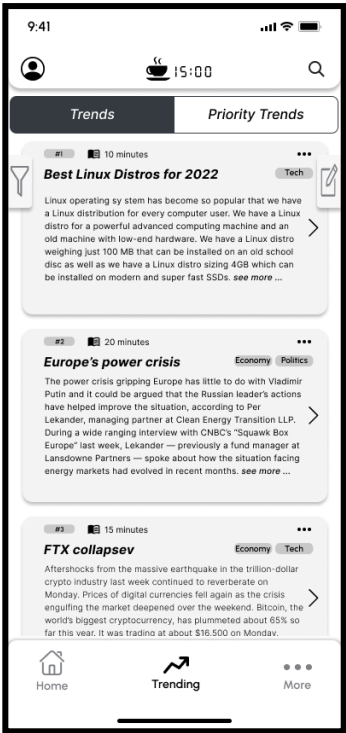
c. Most significant screens

This is the page where the trend is summarised, along with a brief video to keep the user updated with the trend's topic.



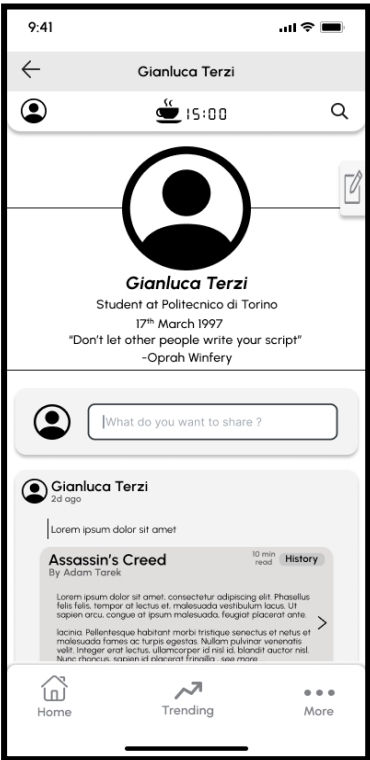
Trend summary

In this page users can see a list of trends ordered by their ranking as trending topics and contain a tag that describes the topic's category, the time required to read the trend's summary and a summary to the trend.



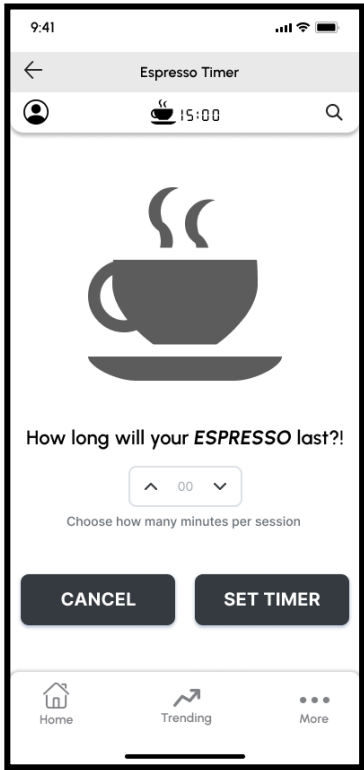
"Trending" page

This the personal profile page, where user can see the posts he shared on his profile, his profile picture and bio.



"Profile" Page

The timer page is where users can set a time session for the time they use the application, such that they get notified after such time is finished.



"Timer" Page

#### **d. The prototype**

The Mid-Fi is accessible through this [link](#) , it's also advised to read the instructions mentioned [here](#)



## 6. *Heuristic Evaluation*

### a. The feedback

We received a pretty insightful evaluation from the peer team , many notes were taken into account and applied to the Hi-Fi prototype , the Heuristic evaluation is available through this [link](#) , also our draft for what we applied is [here](#).

### b. Severity discussion

HERE WE DISCUSS THE ISSUES FOUND BY THE EVALUATORS WITH HIGH SEVERITY IF THEY WERE EFFECTIVE AND HOW WE SOLVED THEM.

6. H3 User control and freedom / Found by: E1, E3 **DONE**  
Where: Posts of a user.  
What: A user does not have the possibility to remove or modify his own posts.  
Why: If the user makes a mistake It is not possible to recover from that error.  
Severity: 4

- *We overlooked this part; it was implemented in the Hi-Fi prototype such that the user can edit or delete his posts.*

7. H1 Visibility of system status / Found by: E1, E3, E4 **DONE**  
Where: Create a new post/note.  
What: A user does not know if a post/note is going to upload or not.  
Why: There is no information of what is going on such as a time bar that shows the uploading time or if something is going wrong, or a pop-up that shows me that the note or post has been added correctly  
Severity: 4

- *This issue was solved by redirecting the user to his profile, where he can see the post he just added on the top of his profile.*

8. H5 Error prevention / Found by: E1 **DONE**

Where: a post in Trends.

What: A user can do some actions to these posts, in particular: set as priority, set as non-priority and Block trends but there is no choice after clicking the button to continue or cancel the action.

Why: Especially for Block Trends if a user clicks by mistake one of these buttons there is no possibility to recover and reset to primary state.

Severity: 4

- *In the Hi-Fi prototype, user gets a feedback after each of the mentioned actions (and other actions) and each one of these actions is reversible, set as priority/non-priority is available in the same options menu, and every blocked trend can be unblocked from the blocked trends page.*

21. H3 Users Control and freedom / Found by: E4 **DONE**

Where: the "search" bar

What: if I try to search and then click on search again I lose what I wrote before

Why: this is a bug that doesn't allow the user to have control while searching for something in the app.

Severity: 3

- *This was a limitation in the Mid-Fi prototype since the search bar was static.*

20. H3 Users Control and freedom / Found by: E4 **DONE**

Where: the timer

What: if I made a mistake and want to select it again, I must first go back to the homepage

Why: it won't let me edit it right away

Severity: 3

- *Again, this was a limitation in the Mid-Fi, in the Hi-Fi prototype the timer is editable, validated and stoppable at any moment.*

1. H3 Users Control and freedom / Found by: E1, E2, E3, E4 **DONE**

Where: Create a new post.

What: The app uses "Post" but not a button "Cancel".

Why: It does not give the possibility to cancel the post by clicking an explicit button in order to prevent errors.

Severity: 3

- *We added the cancel button in the add post modal.*

22. H3 Users Control and freedom / Found by: E2 **NO**

Where: the timer

What: after clicking on "set timer", the system does not give me the possibility to modify the choice before confirming it, but it confirms it directly.

Why: the system does not give the user the possibility of having control of his action, without taking into consideration the possibility of making a mistake.

Severity: 3

- *We didn't add a confirmation page since it's a reversible action, we think that adding a confirmation for every action (especially when it's reversible and simple) would be overwhelming.*

## c. Solutions

IN ADDITION TO PREVIOUS ISSUES, HERE ARE SOME OTHER MINOR SEVERITY ISSUES THAT WERE ADDRESSED.

ISSUE NO.	DESCRIPTION	SOLUTION
3	A user can post only by his profile feed.	A floating add post button is now available on the bottom right corner in every page of the application
4	The app has three different kinds of posts but no information is specified.	A small message now appear under the selected post type, However it's available only for the profile post since it's the only one implemented for the tasks
10	The icon for reading a summary is a man that hears something.	The icon (and the text) was changed to be more understandable
23	If you select filters and then apply it is not clear the state of the system	Now there is a message that filters are applied , and a button to reset all filters
24	There is a problem with the icon once I press to put filters.	Icons are now the same for every window

---

*N.B.: Some other issues were not addressed since we implemented only the task-related functions, for which every issue was solved.*

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## 7. High-Fidelity Prototype

### a. Tools bag

**Tool:** Chrome developer tool (The app was designed on the screen size of iPhone 12 pro).

**Framework:** React JS

**Libraries:**

Different libraries are used in front end and in back end.

#### **Front-End:**

React-Bootstrap => General styling

Dayjs => Time/Date features

Html-react-parser. => Parse Trend summary

React-icons => Icons

React-Router => Navigation and routing

React-select => Filter select components

React-YouTube => YouTube videos in trends page

Sass => Writing custom style

#### **Back-End:**

Cors => Cross origin setup

Dayjs => Time/date features in backend

Express => Backend server

Morgan => Logging middleware backend

Sqlite3 => Database

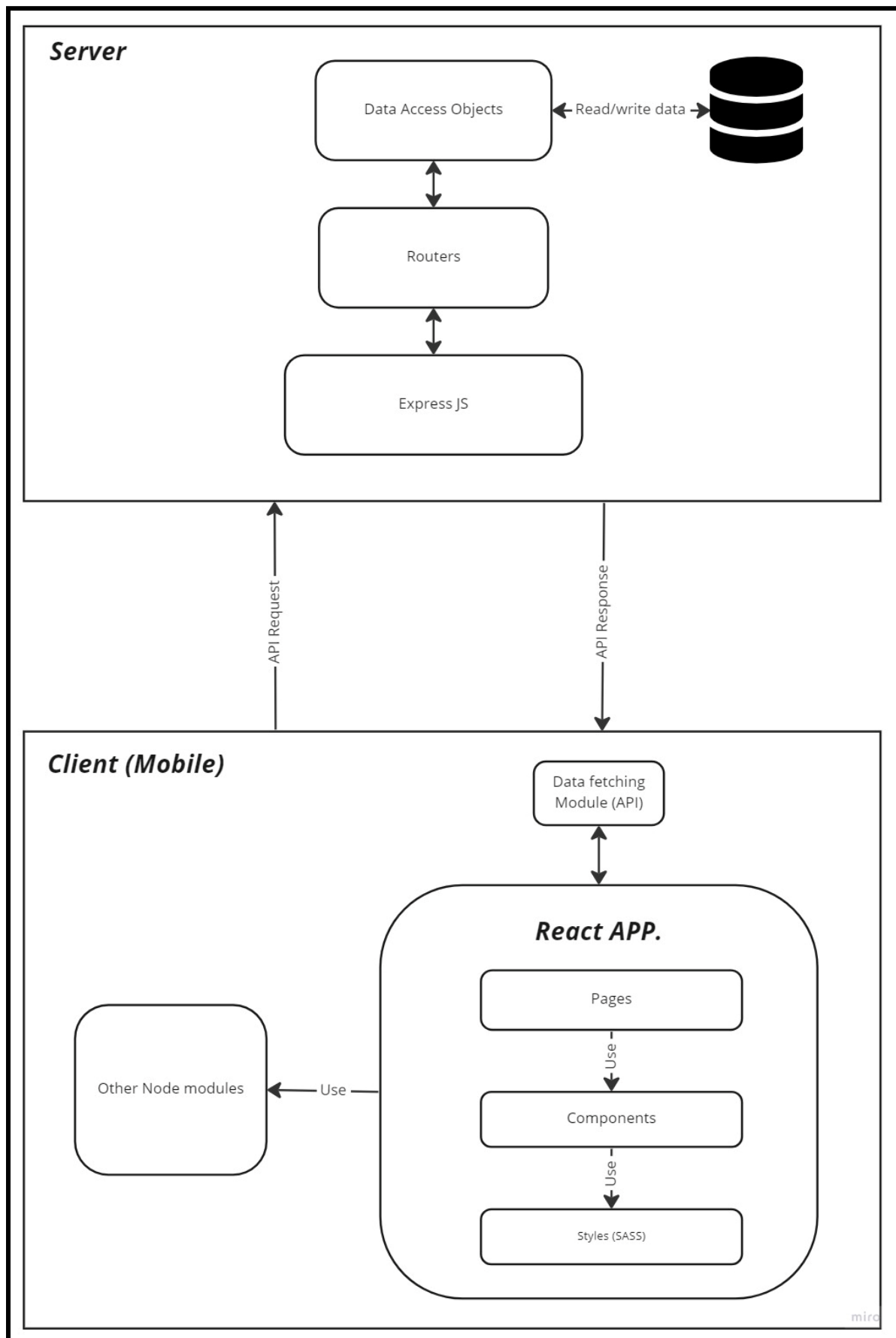
### b. The prototype

The high-fidelity prototype code can be found on [the Espresso repository](#).

## c. Main parts

### Overall architecture

CLIENT SERVER ARCHITECTURE



# The server-side main blocks:

**Express JS:** Setup basic server

**Routers:** API Modules divided based on App features (Trends, Posts, etc.)

**Data access objects:** Modules that interface the database to provide data access (Read/Write)

## The client-side main blocks:

**Data fetching modules:** Responsible for fetching data through API calls.

### React APP:

**Pages:** Main screens of the application called by different routes and organized by features as parent-child routes.

**Components:** React components that used in the pages, each component has its own style nested in it.

**Style:** SASS files that contains the pages style.

**Other node modules:** Various node libraries that are used for different functionalities.

## Most significant screens:

**Trending**

**User profile**

**Espresso Timer**

**Trend details**

## d. Limitations

**The hard coded part:** There is no hard coded part in the client side but an agreement on the id of the current logged user (User\_id = 1) used in fetching data modules.

**Pre stored data:** Data is stored in a relational database; the most important tables are:

***User table:*** User data (name, surname, id, all general user info needed)

***Trends table:*** Include the trends data and information (title, id, summary, resources, ...)

**Limitations:** The prototype provides all needed features and functionalities to perform the defined tasks, other features that a normal social media app should have like feeds, friends are not implemented.

## 8. Usability Testing

### a. Preparation and run.

#### i. The evaluations

##### Evaluation 1:

<b>Participant</b>	Ziad Shaker
<b>Team members and their roles:</b>	Khater Ahmed Mohamed Abdelkhalek (facilitator/observers)
<b>Location</b>	At the restaurant where the participant works, after working hours.

##### Evaluation 2:

<b>Participant</b>	Mohamed Abdelrahman
<b>Team members and their roles:</b>	SAYED AHMED Abdelrahman (facilitator/observers)
<b>Location</b>	At the participant's house

### *How the evaluations were conducted:*

Both evaluations were conducted following the plan that was prepared earlier, both participants got introduced to the Application and the idea behind it, and the talk aloud methodology, then they were asked to read and sign the consent, after that they were introduced to the refined tasks, and they were asked to try to execute them. while the participants were doing the tasks, the observers were taking notes. after the participants finished the tasks, they were asked to fill the SUS questionnaire. Last step was to thank the participants for their time and help.



## The refined tasks:

### T1

Mario is our fictional user. He is at work, and he is taking a 15-minute coffee break, while in the break he wants to start a 15-minutes session timer to check what is going on social media and if there is something new trending.

### T2

Mario just read the summary of trend and he wants to create a post to share his thoughts about what he just read with his friends on Espresso.

### T3

Mario is interested in technology, so during his short break he wants to check if there is any technology news trending now that he can read its summary in 10 minutes or less.

## ii. Plan and Artifact

The usability test protocol, the consents signed by the participants and the filled questionnaires can be found in the folder [A6 in the group repository](#).

## **b. Results**

### **i. Summary**

The participants successfully completed the first 2 tasks with no problem and very fast, the navigation seems natural, and the participants were able to identify what needs to be clicked to do the tasks.

In task 3 the participants didn't notice the filter Icon at first and they tried searching for the tags instead of applying the filter, later when they were informed about the filter icon, both could complete the task successfully.

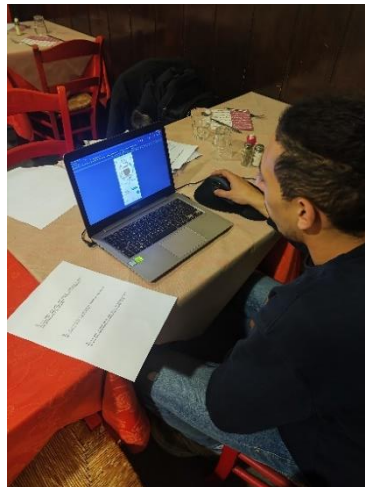
The SUS score for this evaluation 1 is 95, and for evaluation 2 is 90.

The results of the metrics used (task time and completing the task) were positive, since all tasks were completed successfully and in a very short time.

## *Photos taken during the evaluations:*



***Participant 1 explores the application.***



***Participant 1 executing the tasks.***



***Participant 1 reads the tasks***



***Participant 2 executing the tasks.***



***Participant 2 filling the questionnaire.***



***Participant 1 filling the SUS questionnaire.***

## Artifacts:

- [Link to the screen record of the first evaluation](#)
- [Link to the screen record of the second evaluation](#)
- [There are other artifacts in the folder A7 of the group's repository.](#)

## ii. Discoveries and outcomes

Our prototype gave the participants the experience and feel of a full application, during the evaluation they didn't experience any problem that arise from an uncomplete implementation, we got feedback that the application is fast and easy to use. We also discovered that some parts where clear and obvious to us like the filter icon and its position on the screen, but this wasn't the case for the participants, so it's always beneficial to get feedback as soon as possible from the users.

## iii. Potential changes

### 1. **Filter icon and its location.**

*During execution of task 3, both participants didn't notice the filter icon.*

### 2. **Adding 2 or 3 screens making a tutorial for no trivial tasks like filtering and explaining the trend card info.**

*Following participants thoughts while they were executing the tasks, we noticed that the tags where clear and they could notice it, but they didn't know that it can be used in the filter, the same also to the time to read icon.*

### 3. **Changing the add new post and notes icons with other icons that are more representative of the actions.**

*During task 2 one of the participants went first for the notes icon to add a post and then he clicked on the right icon, later he commented that this icon is more common used for creating posts in other applications.*

## 9. Conclusion

### **a. Main learnings**

- I. We develop applications to provide solutions for problems that face the users or to help them with daily life tasks, so first we need to know what the users really need from their point of view, so listen to the users and design for them.
- II. Prototyping is a cheap, fast, and easy way to get feedback as fast as possible.
- III. Get as much feedback as possible to stay on what users really need.
- IV. Don't reinvent the wheel and follow the standards to make the application accessible and include as many users as possible.
- v. When developing the application always keep the 10 usability heuristics in mind.

### **b. Group feedback**

Unfortunately, our team experience was bad, two team members ABOUZAID SALEM and HUANG CHUNBIAO were always late on delivering their work initially and the work was always not complete or completely wrong and we (Khater Ahmed, Abdelrahman Tawfik) had to redo it every time, they kept giving us promises they will do better next assignment, but it was the same. When we arrived at assignment 6 we did the project setup and divided it to user stories and made a project board on ASANA to manage the work and we agreed on a meeting with the other 2 members and divided the user stories into 4 sprints each sprint is one week, but after the first sprint the 2 member (ABOUZAID SALEM and HUANG CHUNBIAO) didn't do their work and ABOUZAID SALEM quite the project and sent an email to the professor and HUANG CHUNBIAO didn't respond to us again, eventually we had to divide all the work on 2.