

1694 HCI/d CAPSTONE

# SpoilerSource: Using Crowdsourcing to Filter or Obscure Spoilers on the Internet

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# Spoilers on the Internet impact people's viewing experiences.

Months before a much hyped about Movie releases, there is a lot of talk and discussion online about its plot, suspense and character details. Such information or “spoilers” have generated divided opinions from viewers on whether their experience has been enhanced or diminished.

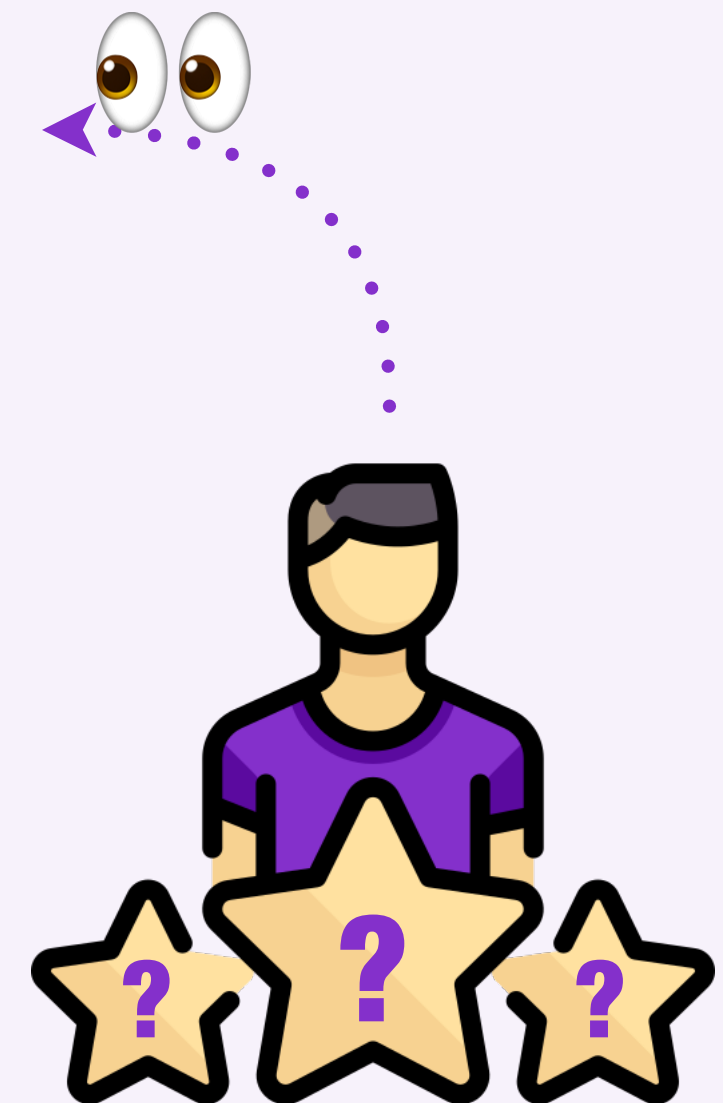
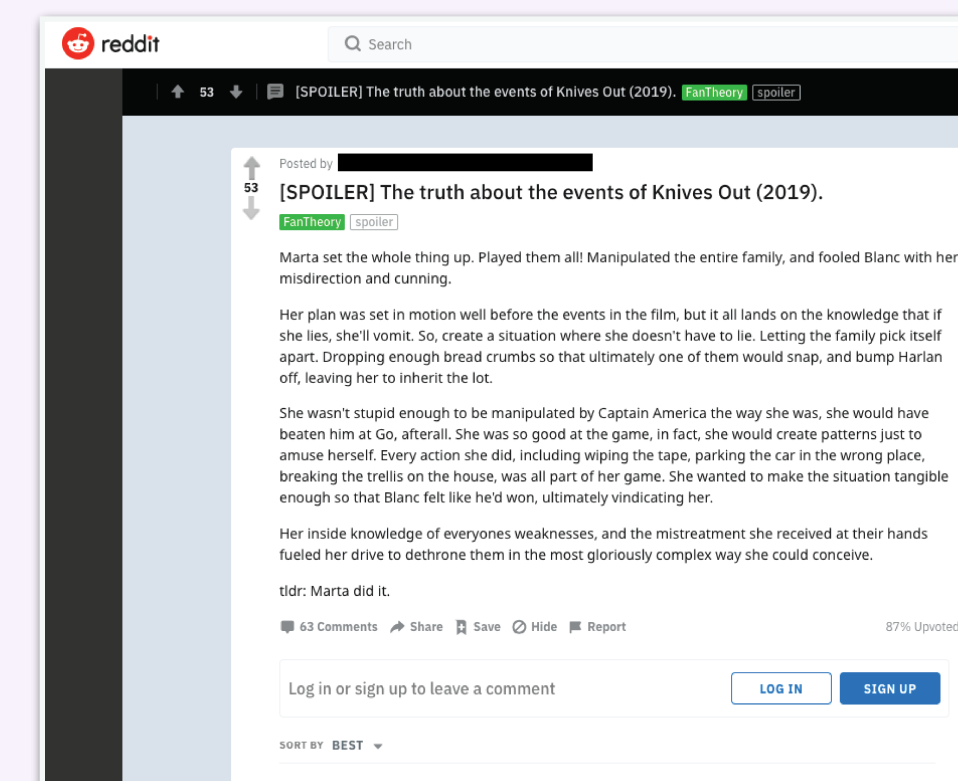
While some people thrive on spoilers and have entire communities centered around them, in other cases, people are extremely vocal about their dislike and go out of their way to avoid hearing anything that might affect their experience.

In such a scenario, how might we use design to ensure that people don't accidentally uncover spoiler rich information that might have a negative impact on their viewing experience?

## 1 New movie releases



## 2 Spoilers appear on Web Pages, Social Media and Online Forums

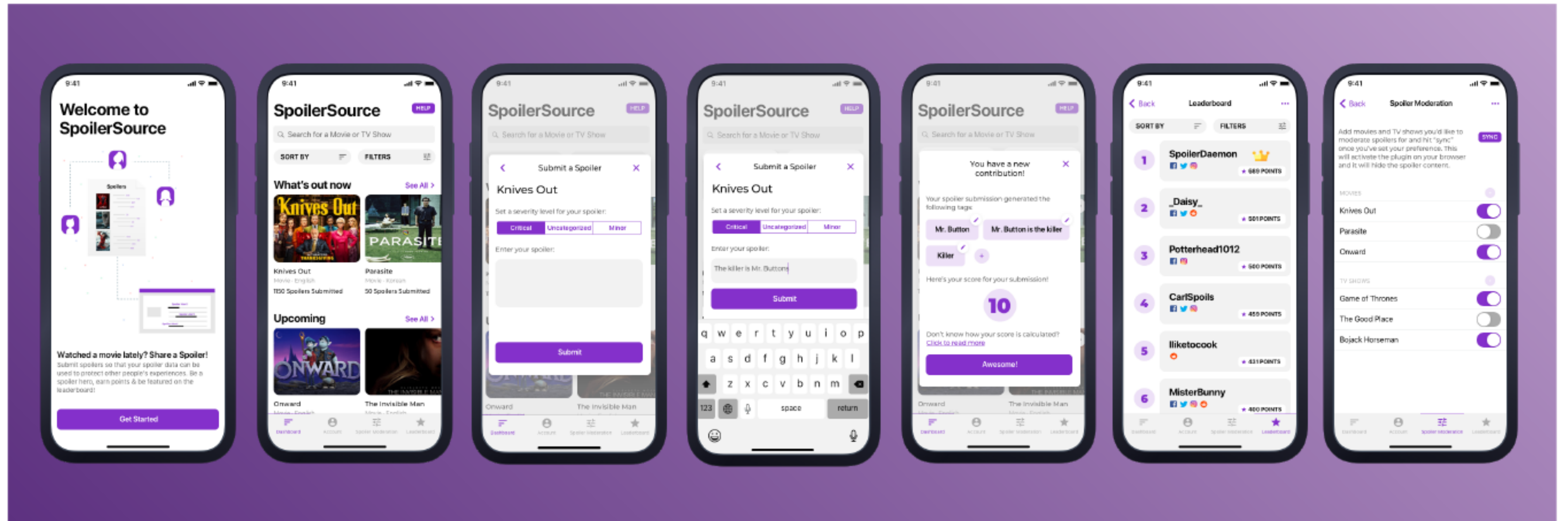




# Crowdsourcing spoilers for improved content filtering.

The final design outcome of my Capstone is **SpoilerSource**, a mobile app that uses crowdsourcing to collect spoilers directly from people. Using SpoilerSource, users can submit movie spoilers and view the spoiler containing keywords that are generated from their submission. They are then given a point based score for their contribution. This is so that users are able to view what their data can accomplish and feel rewarded for making a contribution. SpoilerSource also has a leaderboard where top contributors are featured. The leaderboard feature is very minimal and is just a way for popular users to showcase their accounts and make friends using their social media accounts if they wish to do so.

**SpoilerSource works together with a browser widget that syncs with the mobile version and filters or obscures content for the user.**







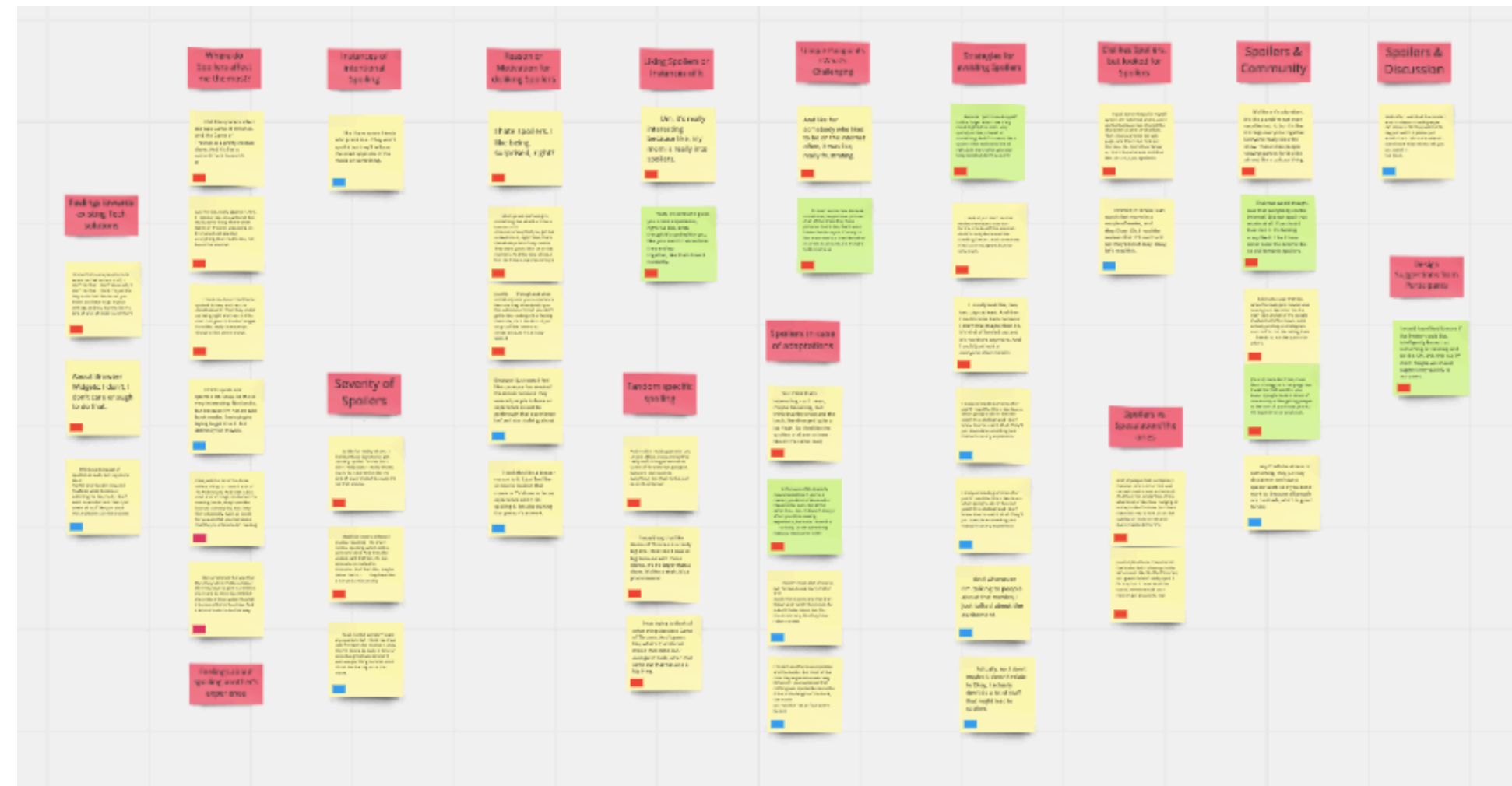


# Analyzing research into insights and early concepts.

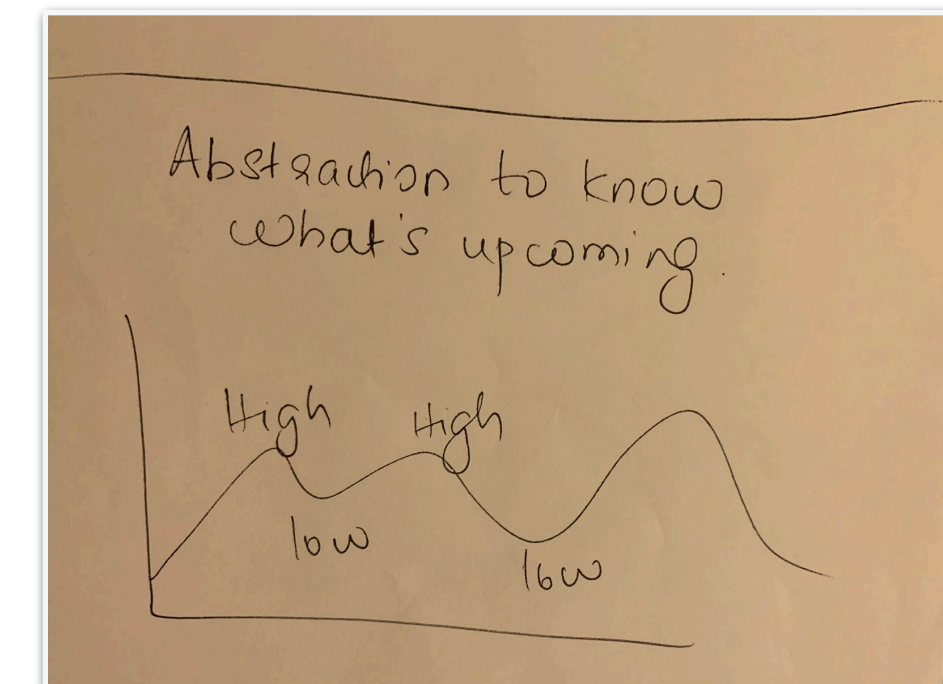
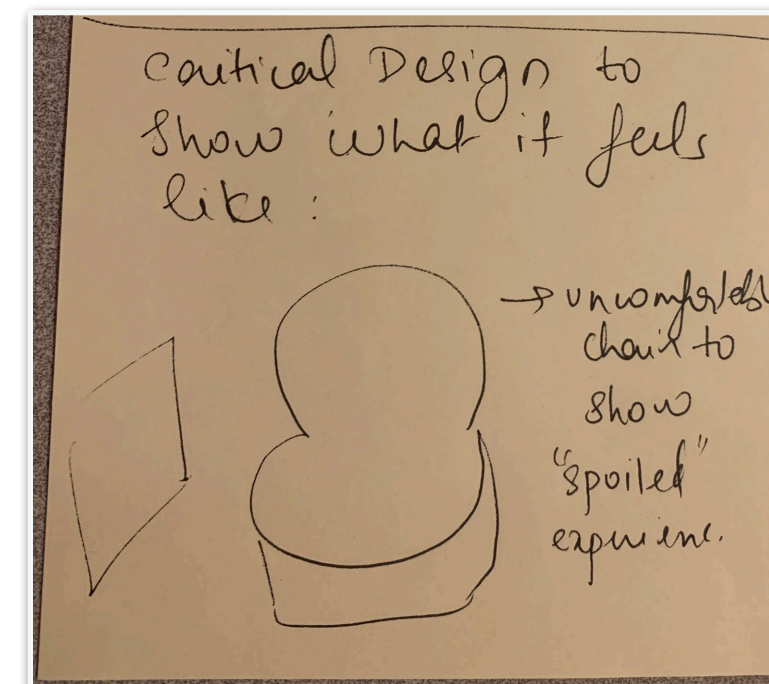
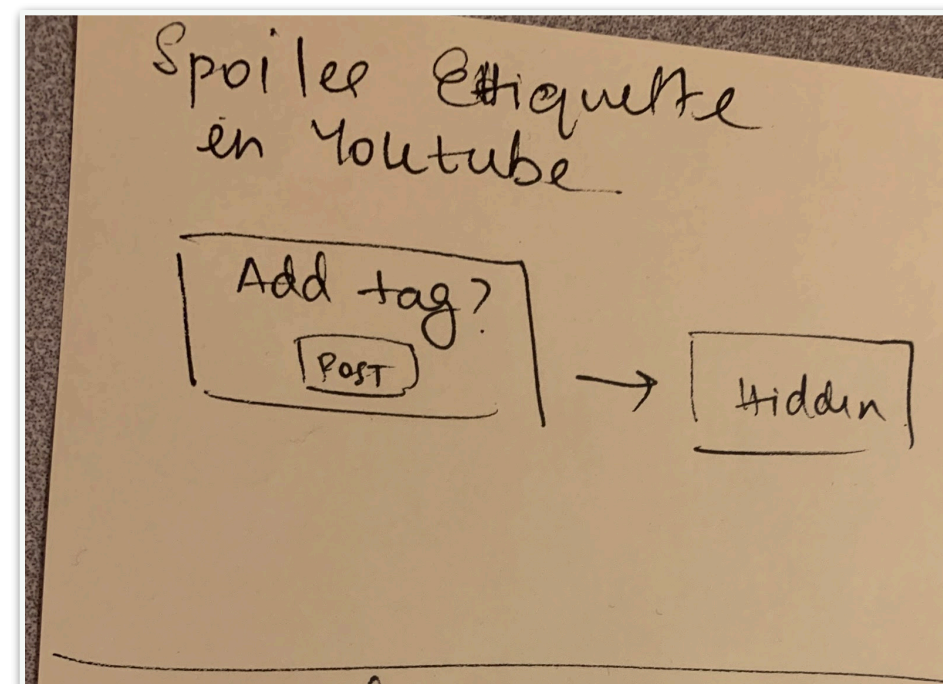
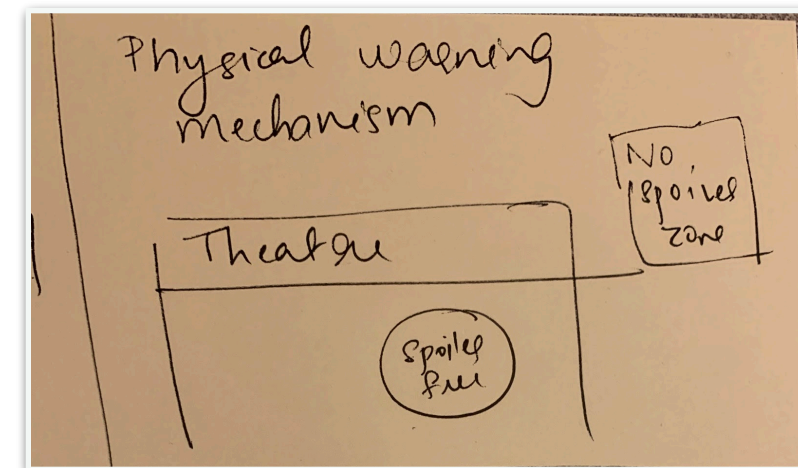
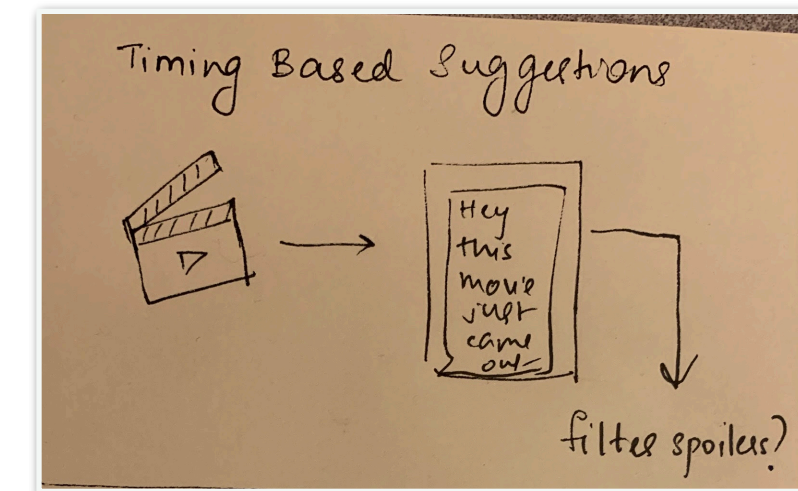
From my Literature Review, Exemplars and Interviews, I collected a lot of research data.

I started by using Affinity Mapping as my primary method for synthesis but I struggled with Analysis Paralysis and found it difficult to move forward. To overcome this, I generated random concepts to figure out which insights I was most passionate about.

Doing this helped me realize that, I was specifically interested in working on **community based** spoiler moderation.



Pictured above: Affinity Mapping of Research on Miro



Pictured above and to the right: Early concepts from design



# Key insights that led to the final design.

The 3 insights listed below are what inspired my final concept:

## IT'S CHALLENGING FOR TECHNOLOGY TO FILTER THE "RIGHT" SPOILERS

Technology solutions are effective in filtering out content but don't always filter or obscure the "right" content. This can be attributed to the fact that it's hard to generate a dataset of what can be considered a spoiler to a specific individual.

*"Simple, automated blocking strategies can detect nearly all tweets about a specific topic, but that they are not enough to block all spoilers and that the rate of false positives may be unacceptable for some users."*



— JENNIFER GOLBECK, 2012[1]

## THE POWER OF THE COMMUNITY CAN BE LEVERAGED TO REDUCE INFORMATION SPREAD

Community based solutions like social media campaigns, public spoiler awareness posters etc. seem to have met more success in bringing about mindfulness and reducing the spread of information.

*"When the Avengers movie was coming out, like all of the main cast and all of the people involved with the movie, were actively posting on Instagram and stuff to tell their friends to not spoil it for others. I have never seen the internet be so civil towards spoilers"*



— USER INTERVIEW, PARTICIPANT 1

## BRINGING ABOUT AWARENESS CAN HELP PEOPLE BE MINDFUL

Most people spoil experiences accidentally and without realizing that they are impacting the other's viewing experience. Once they were made aware, they tend to respect opinions and try to control what they share.

*"Whenever someone's like 'Hey, Don't spoil this for me' I will respect that mainly because I feel that little personal relationships with people is more important than me spoiling a TV show."*



— USER INTERVIEW, PARTICIPANT 5



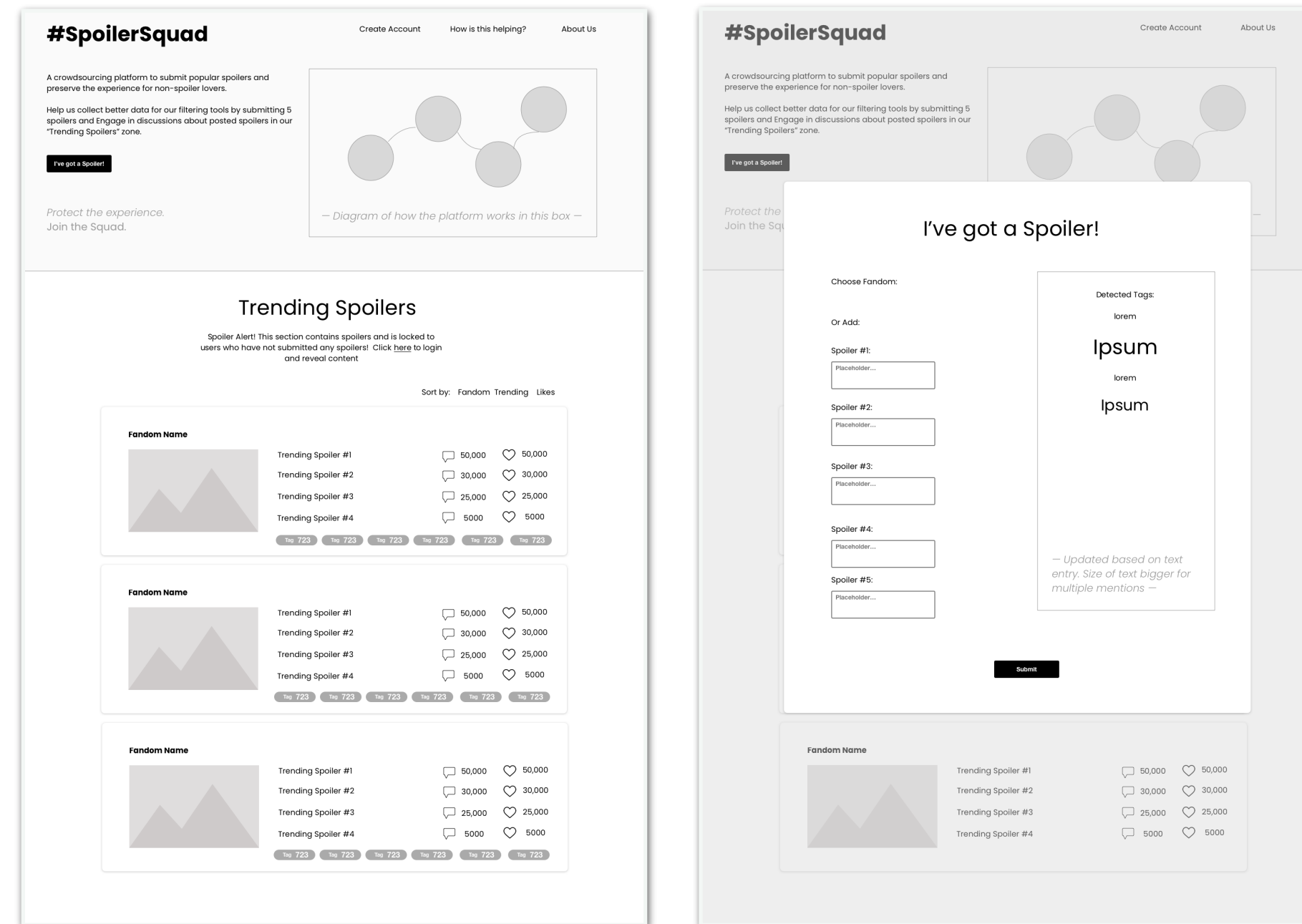
# The first iteration and it's evaluation.

Using my primary insights and my interest in working with the community to prevent the spread of Spoilers, I ideated a concept based on crowdsourcing.

I also took inspiration from some of Google's solutions like Waze and Neighbourly which relied on data from people to provide traffic or neighborhood assistance.

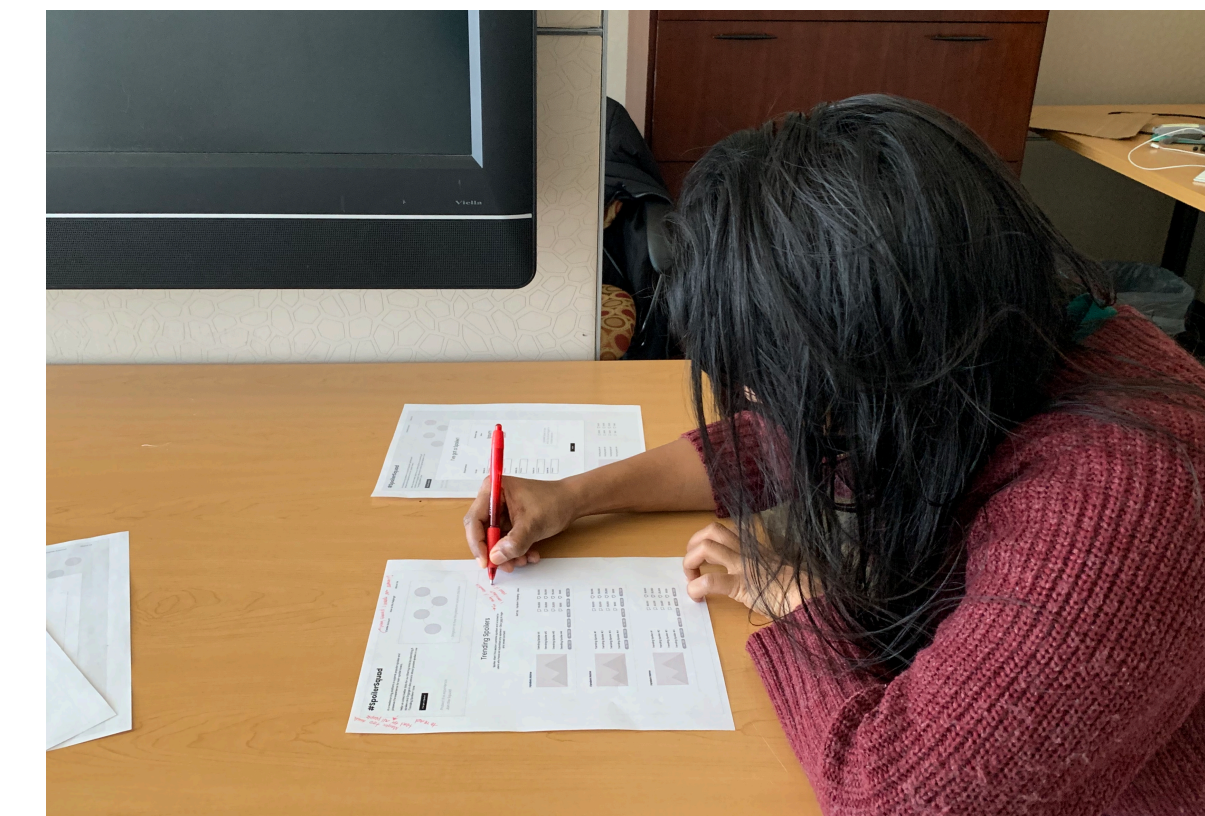
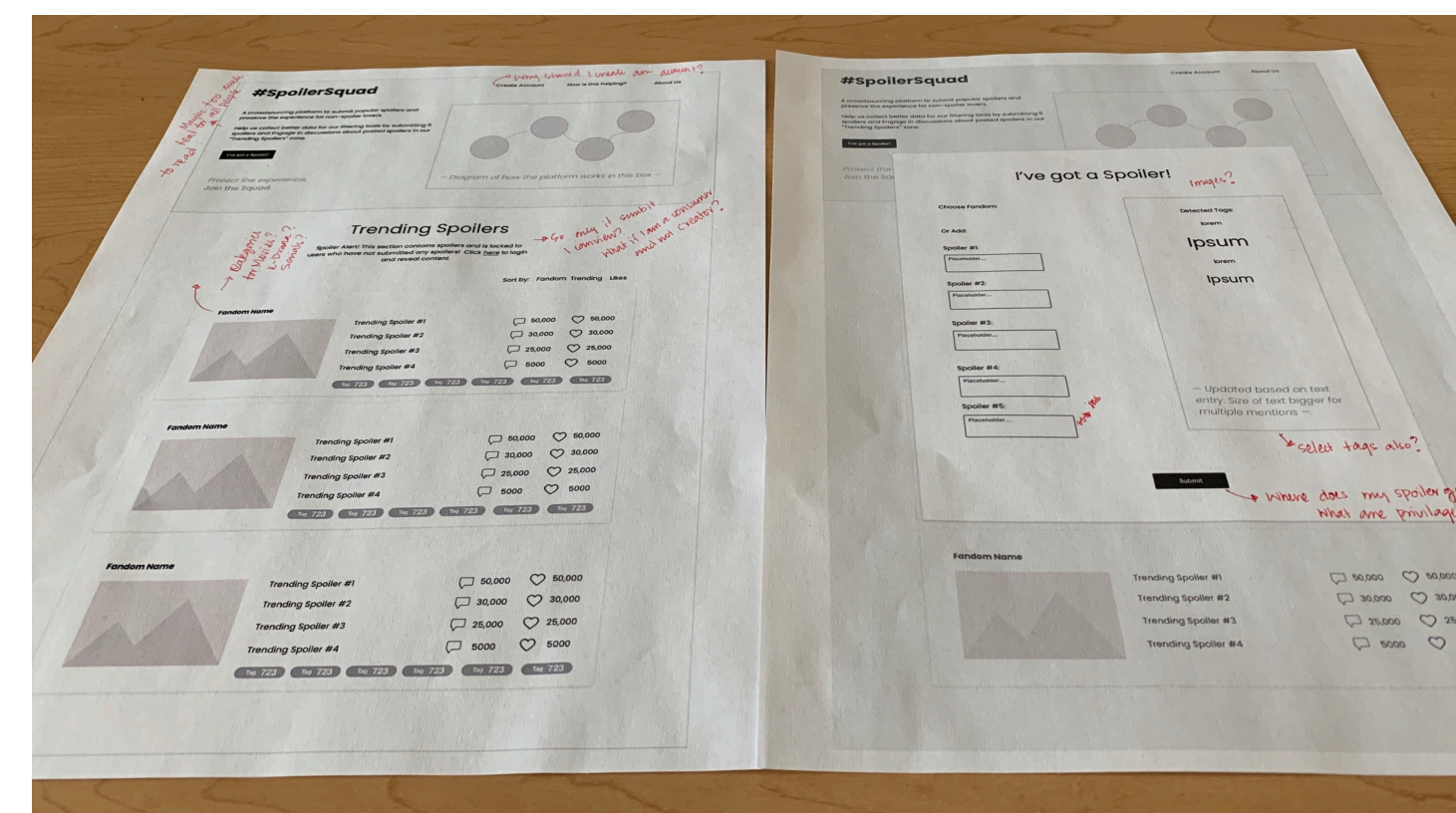
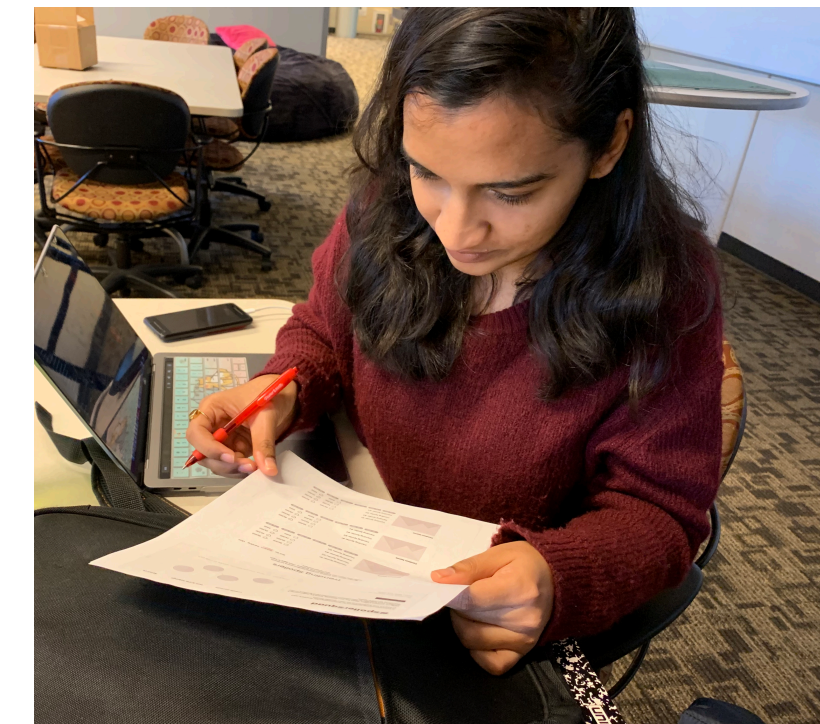
I designed a simple website interface that would allow users to submit spoilers for a variety of media. In this version, users could submit spoilers for both movies and TV shows. They were required to submit a spoiler to gain access to the website and this would also give them visibility of all submitted spoilers if they chose to explore it.

From the two rounds of User Testing that I conducted, it became clear that users did not like the **complexity of the web interface**, did not feel motivated to explore and found having **too much media** confusing.



Pictured to the left: Low Fidelity wireframes of the web version.

Pictured below: User Testing with participants annotating the wireframes.





# The second iteration and it's evaluation.

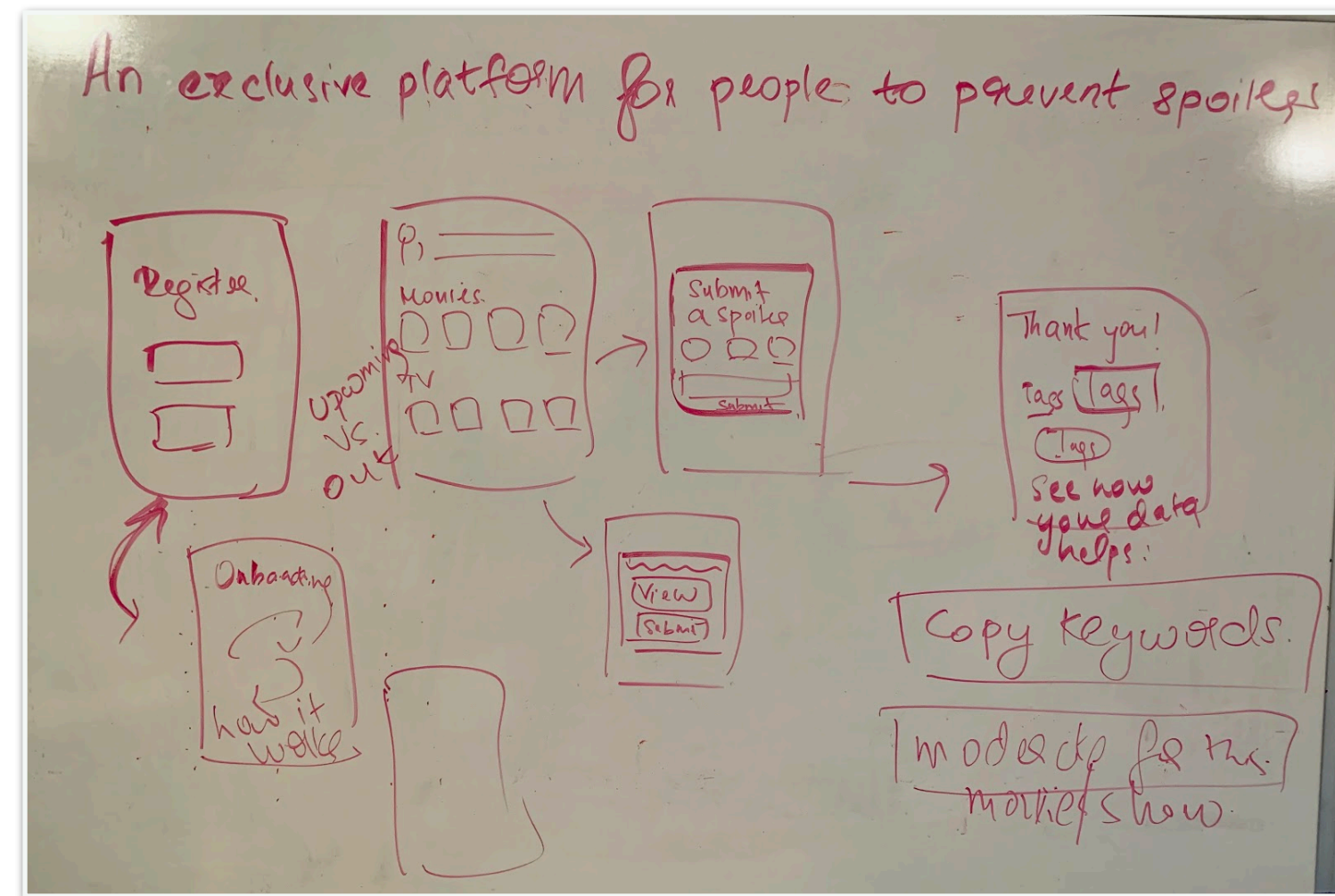
Using the feedback I collected from my first round of User Testing, I went back to the drawing board and created low fidelity screens for a mobile based crowdsourcing app. I then created medium fidelity screens, which I prototyped and tested on around 6 users.

## MAJOR CHANGES:

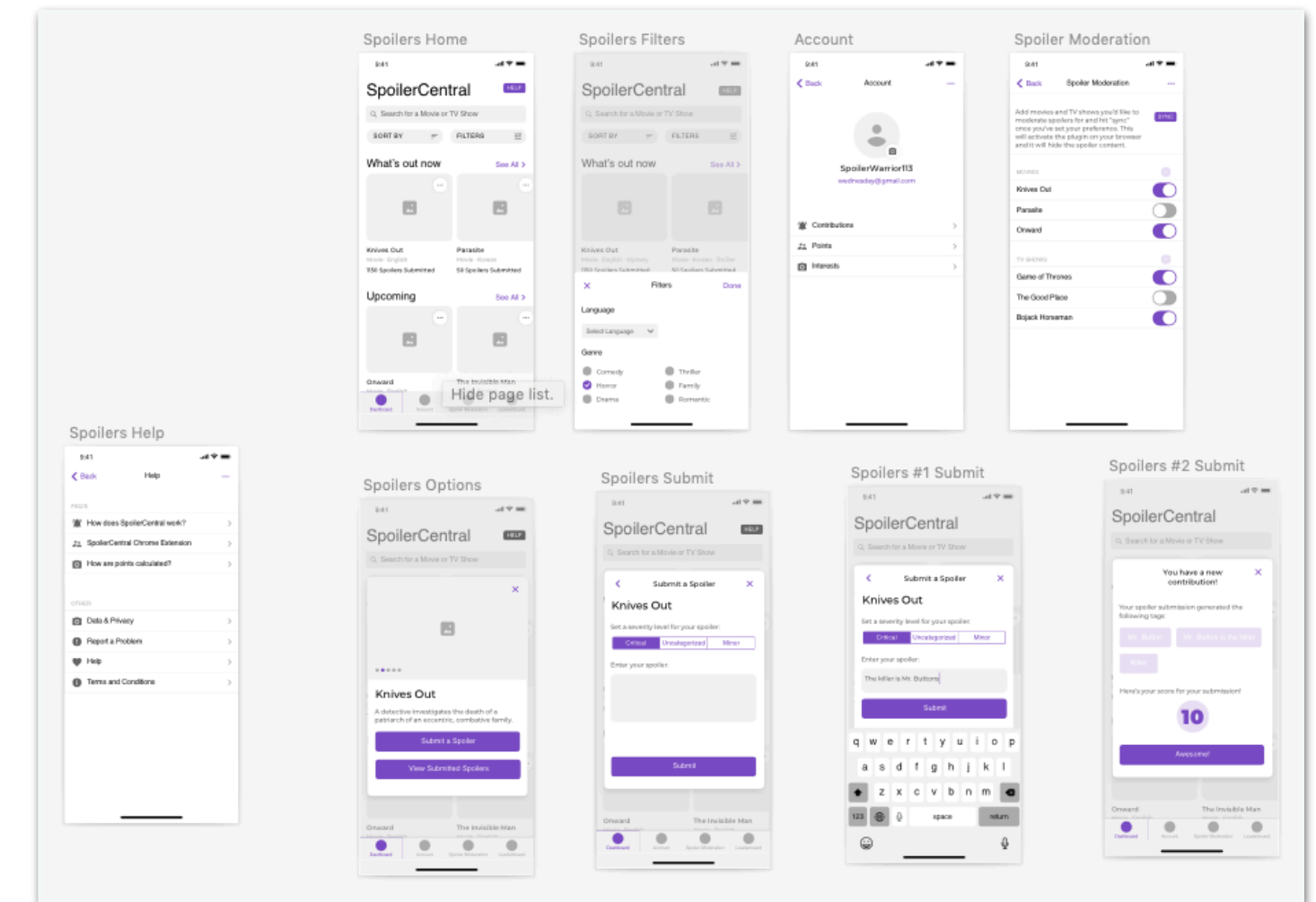
- Changed platform from web to mobile
- Restricted media to Movies only
- Increased the level of transparency of spoiler data and removed “submit a spoiler to access the app”.
- Added a leaderboard for motivating people who are extremely passionate about movies and spoilers

On completion of the last round of User Testing, I made a few more minor changes to the appearance and verbiage to make the experience smoother.

Overall, this version was much more liked by users and they appreciated its simplicity.

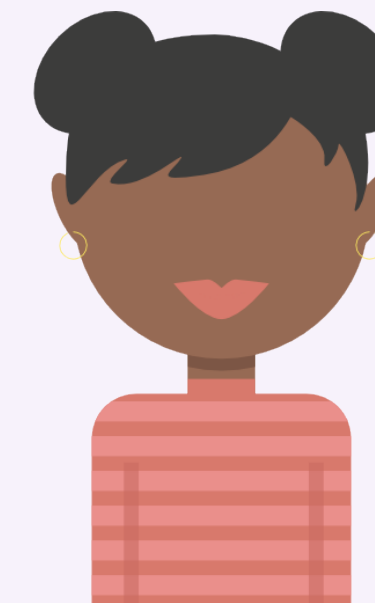


Pictured above: Whiteboarding of mobile app flow



Pictured above: Medium Fidelity screens designed on Sketch

“I think on that front it’s pretty cool and I found it similar to most apps out there. So it was pretty natural for me to navigate, did not have to think much”



– USER TESTING, PARTICIPANT 4

“I like the idea that there is a browser plug-in that would block spoilers for you!”

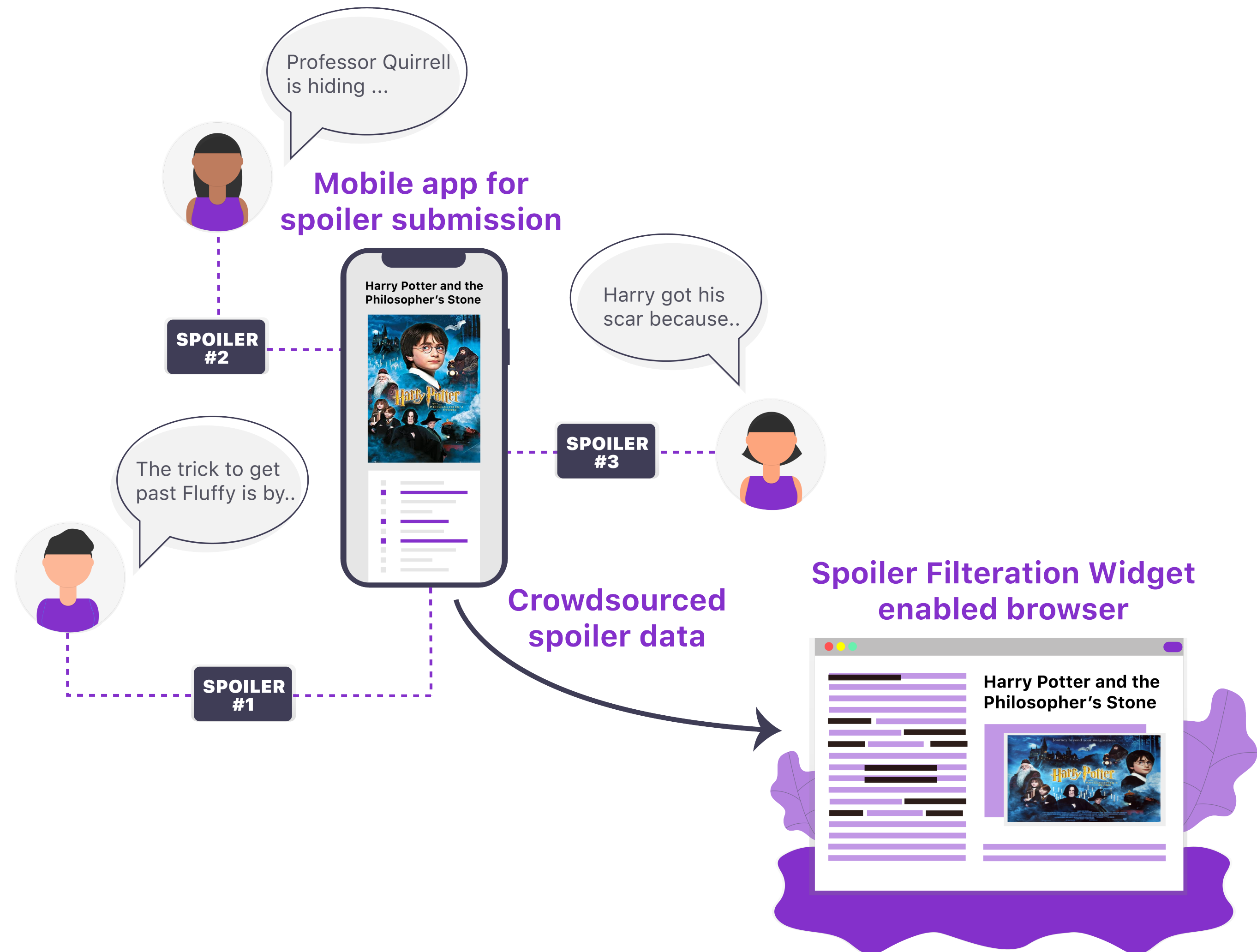


– USER TESTING, PARTICIPANT 8



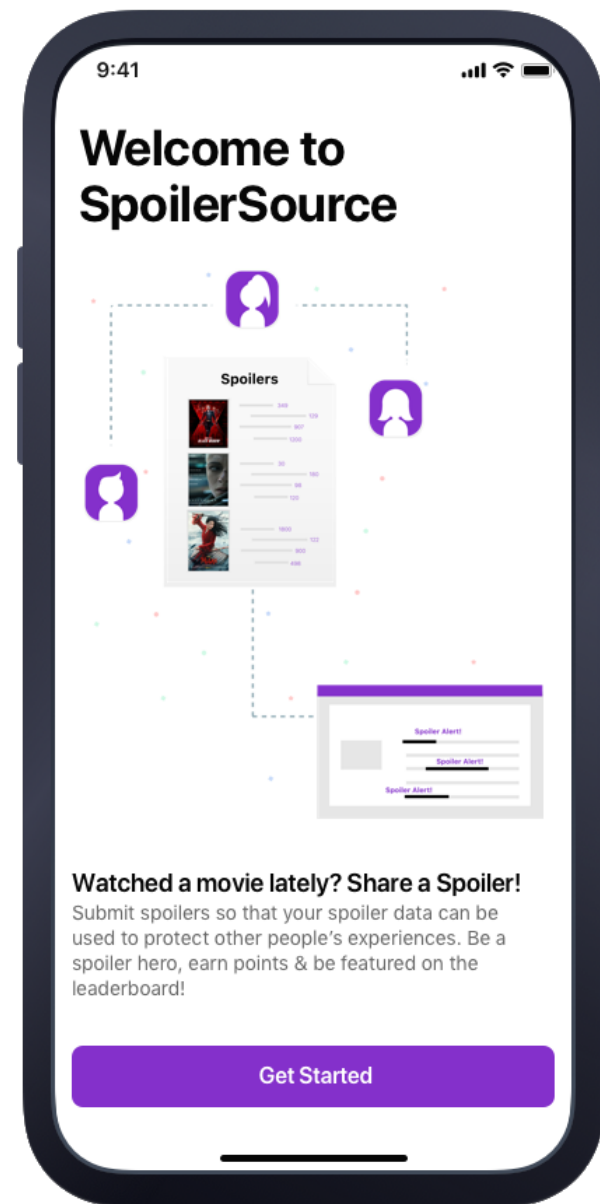
# A diagrammatic representation of the final concept.

SpoilerSource: A mobile, crowdsourcing app to collect spoiler submissions from people and using that data to filter keywords via a Chrome extension that goes with the app.



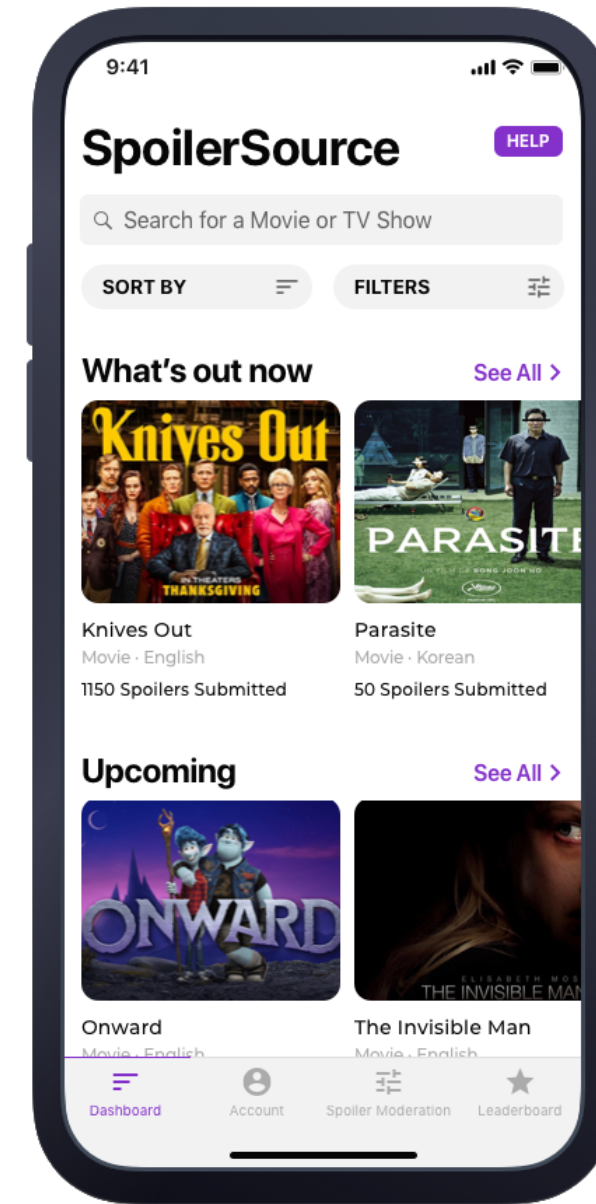
# Design features.

The final design and features of the SpoilerSource app are:



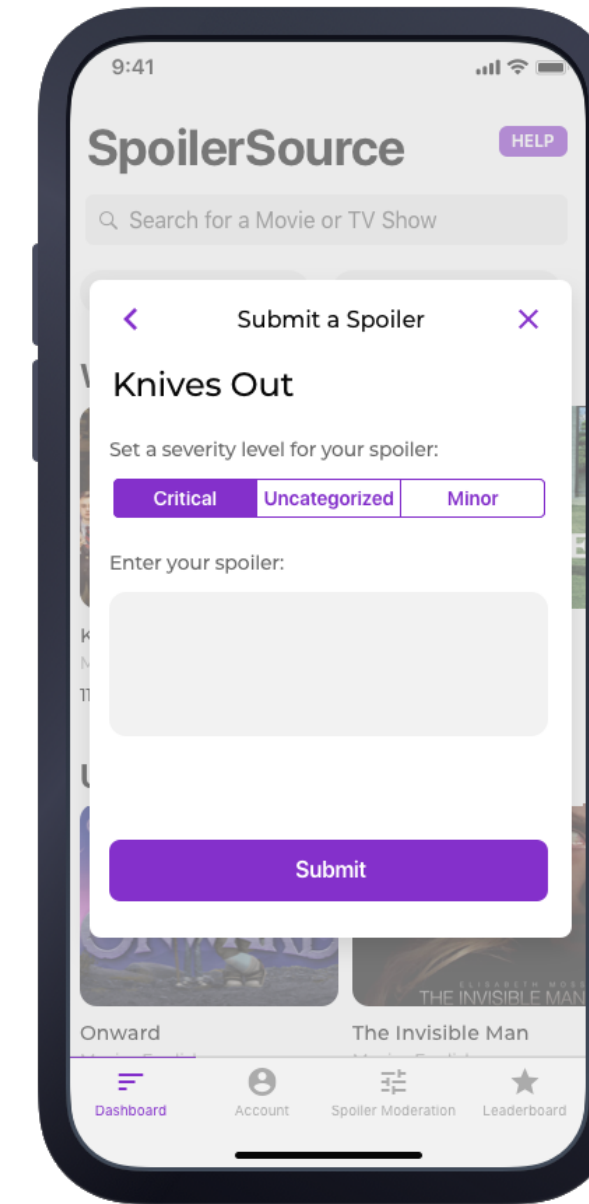
## ONBOARDING

An onboarding screen with an illustration to ensure that users are able to understand the purpose of the app



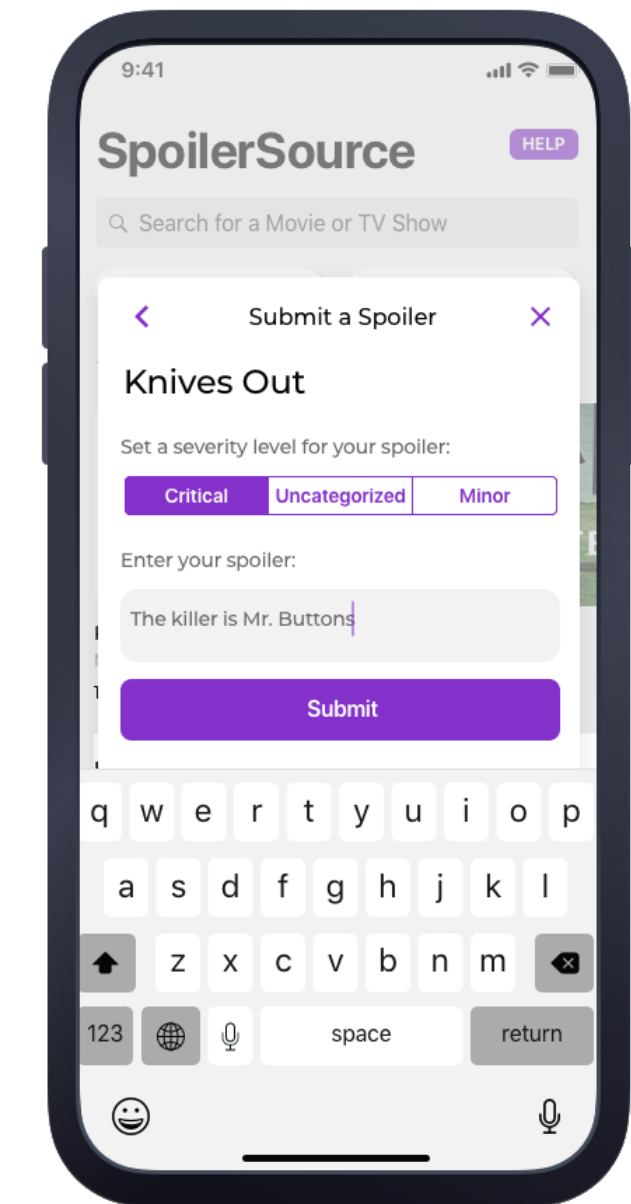
## DASHBOARD

A dashboard to showcase the movies that are currently out, upcoming and of various genres. Here, users can switch views between Dashboard, Account, Spoiler Moderation & Leaderboard. A “Help” button is available on top for assistance on various topics.



## SUBMIT A SPOILER (1)

The “Submit a Spoiler” popup can be accessed by clicking on a movie that the user wishes to submit a spoiler on.

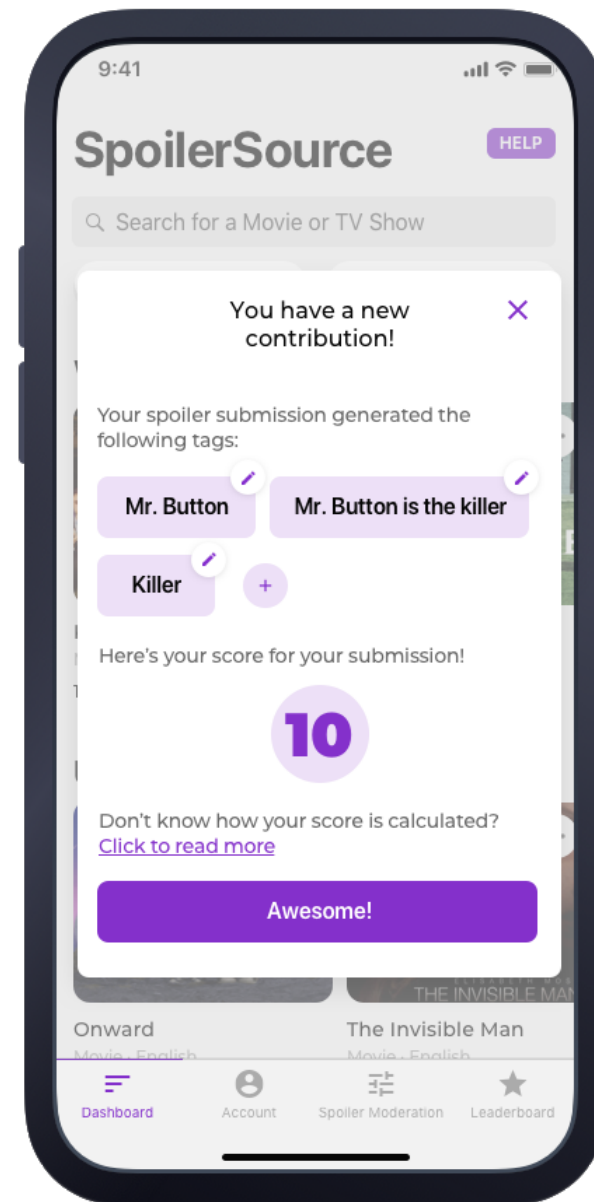


## SUBMIT A SPOILER (2)

Users can type in the spoiler and set a severity level (Critical, Uncategorized and Minor) prior to submission.

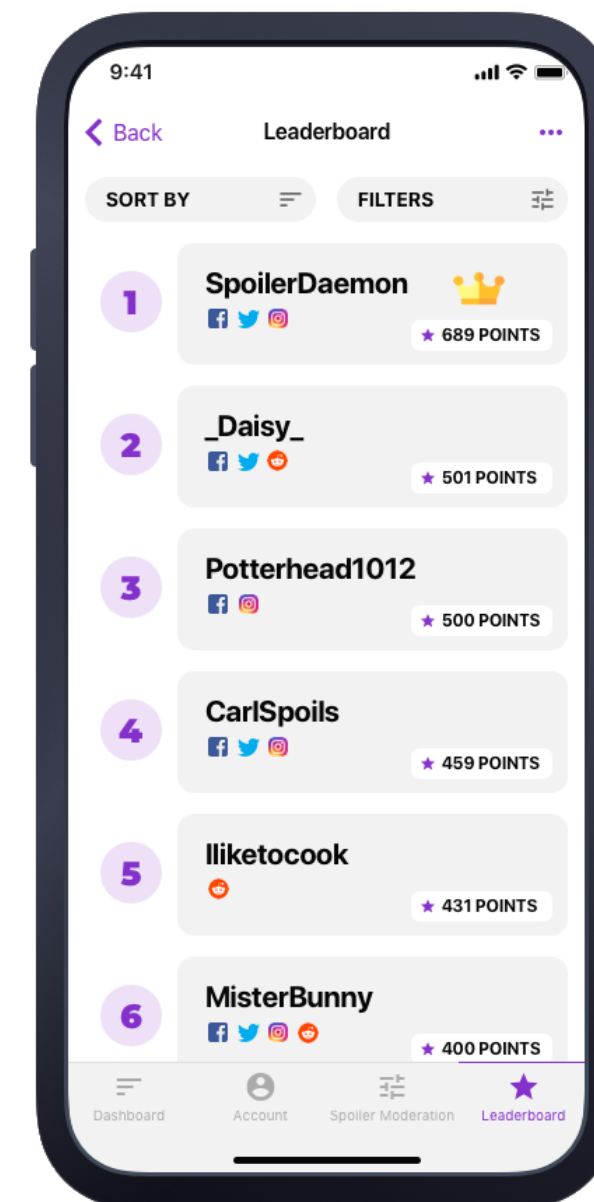


# Design features (contd.)



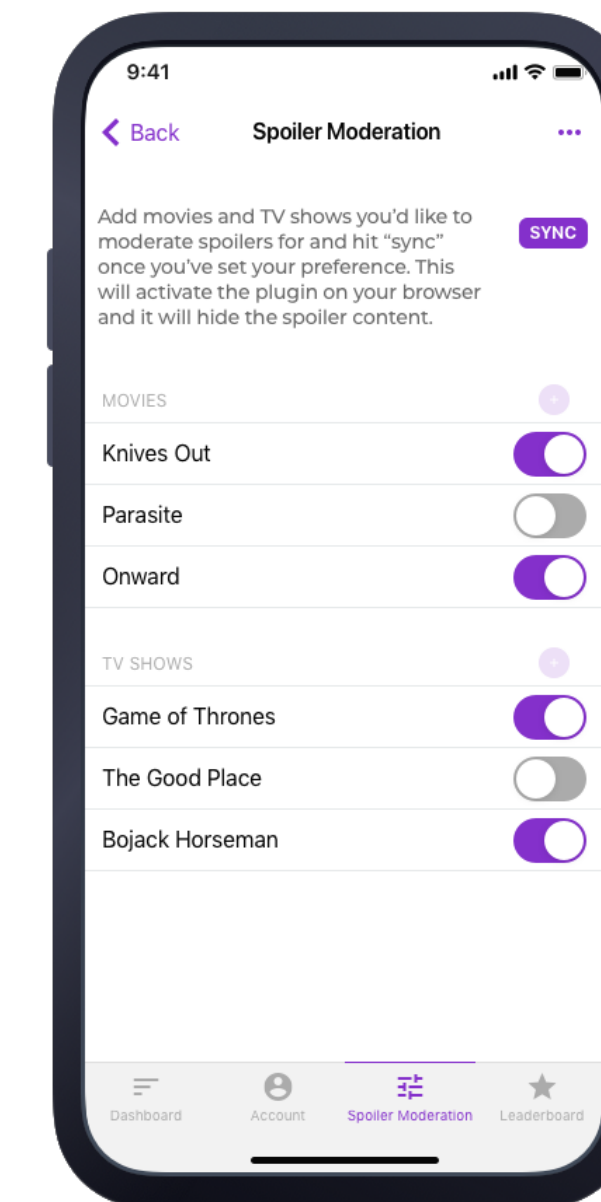
## SPOILER SCORE

On submission, users can see and edit the keywords that have been auto-generated out of their contribution. A score is shown to display the value of their contribution and also to motivate and gamify the experience.



## LEADERBOARD

A leaderboard view of the top contributors with the option of connecting with them socially



## SPOILER MODERATION

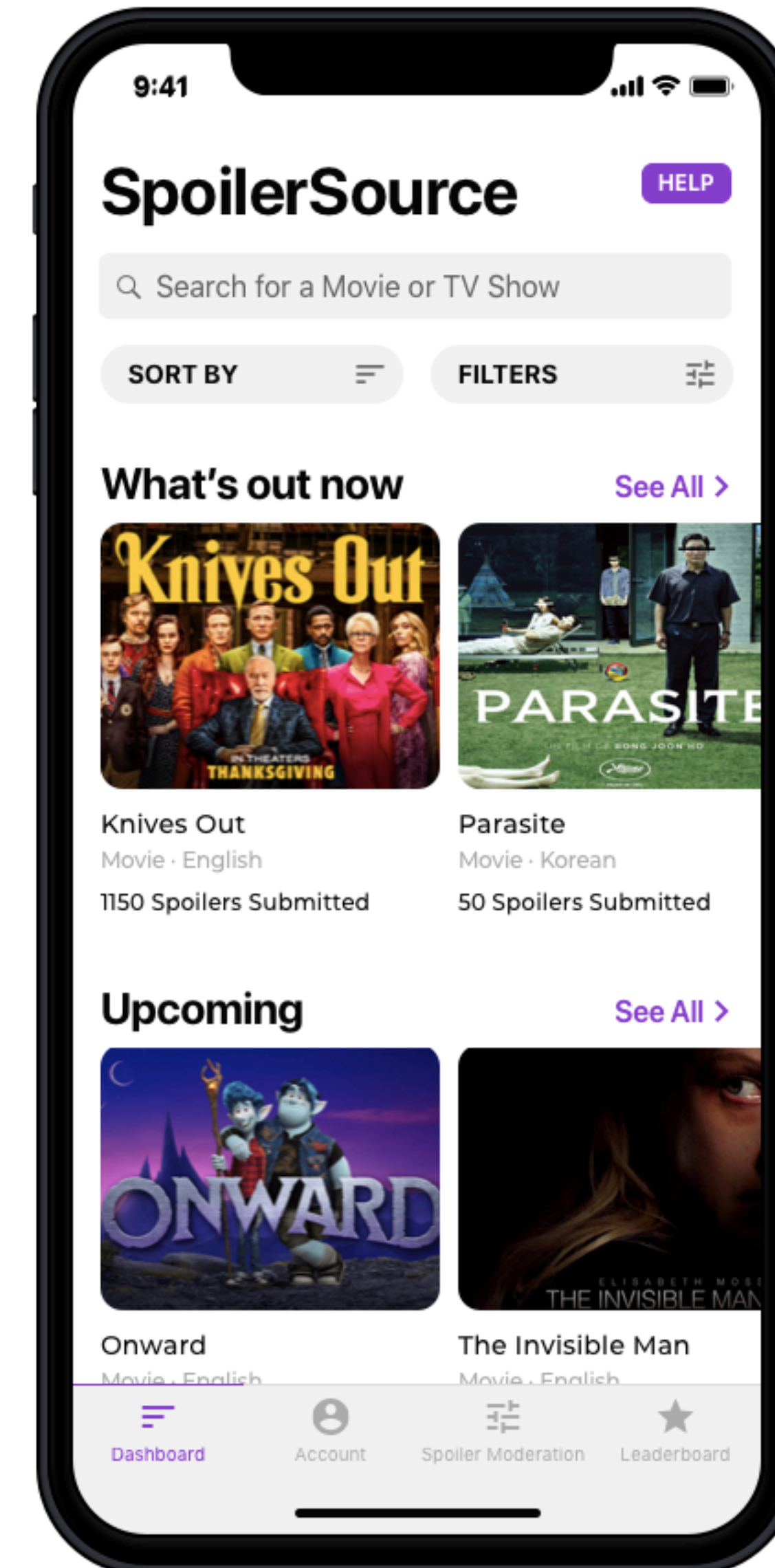
A setting page to turn on & off the spoilers for the user's preferred movies. Once set, this can sync with the browser widget that then blocks out spoilers.



# The working prototype.

A working prototype of the final design and its flow can be accessed here:

[https://invis.io/EBWS3INH7C2#/412784619\\_Onboarding\\_-1\\_Copy](https://invis.io/EBWS3INH7C2#/412784619_Onboarding_-1_Copy)





# References and Acknowledgements

I want to thank Erik Stolterman, Andy Hunsucker and all our AI's for their time, feedback and guidance. I also want to thank my cohort for valuable feedback and critique that helped refine my work.

Finally, I'd like to thank all my interview participants for their time and valuable opinion.

[1]Jennifer Golbeck. 2012. The twitter mute button: a web filtering challenge. In Proceedings of the SIGCHI Conference on Human Factors in Computing Systems (CHI '12). ACM, New York, NY, USA, 2755-2758.

Icons from Flaticons & Undraw

Movie posters of Parasite, Onward, Knives Out & Harry Potter belong to their respective makers.