

PHASE 3: Sketches, Low- Fidelity Prototypes, Task List, & User Evaluation

Step 1: See Pages 3-7

Maleek– Pages 3-5

Tyler– Page 6

Zora– Page 7

Step 2: Three early design concepts were developed to explore how users could interact with the SpinSpotter app while learning to identify and understand bias in digital media.

Prototype 1.0: Explain & Compare– User-friendly interface that highlights biased words directly in articles and provides short explanations of bias types (e.g., "appeal to emotion"). It also includes comparative metrics showing bias levels across multiple sources. (**Page 8**)

Prototype 1.1: Learn & Identify– A learning-centered interface that presents brief, interactive lessons on different types of bias. Users engage with short examples to reinforce understanding and recognition skills. (**Page 9**)

Prototype 1.2: Conversational Companion– A dialogue-based interface that promotes accessibility and engagement through conversational-style interactions. Includes adjustable controls for learning preferences, accessibility needs, and sensitivity settings. (**Page 10**)

Step 3. Final Paper Prototype Description (Page 11)

Overview: Prototype 1.2 features three key mobile screens:

1. Home– Welcome page.
2. Search results– Contains navigation menu via hamburger icon and search button.
3. Article View – Displays text with bias highlights and short explanation pop-ups. Contains spin settings settings panel via hamburger icon.
4. Spin Settings Panel – Sidebar panel with Toggle (on/off) buttons that determine app functions (e.g., highlighting and links to alternative articles).
5. Settings Menu– Accessibility controls.

Step 4. Storyboard

Screen 1 → 2: Tap SpinSpotter logo on the Home screen to open the Search Results page.

Screen 2 → 3: Paste/Upload/Search in the search box to open the Article View.

Screen 3 → 4: From the Article View, tap the hamburger icon to open the Spin Settings Panel.

Screen 4 → 5: From the Spin Settings sidebar, tap Settings to access Accessibility Controls.

Screen 5 → 1: After adjusting preferences, tap Home to return to the starting page.

Step 5. List of Representative Tasks

1. Open the app and start a new article analysis.
2. Identify biased language in the passage.
3. Tap a bias highlight to see its explanation.
4. Ask the chatbot for clarification on “Why is this biased?”
5. Reflect on whether the article feels balanced.
6. Submit personal bias feedback.
7. View the bias summary and choose to start another article.
8. Adjust accessibility controls (Dark/Light Mode, Read-a-Loud, Color Blind Adjustments).
9. Toggle (on/off) bias detection sensitivity.
10. Save previous searched articles for quick reference.

Step 6. Usability Evaluation Summary

Evaluation:

1. How easy was it to identify and interpret bias highlights?

Very Easy / Easy / Neutral / Difficult / Very Difficult

2. Did the feedback/reflection screen make sense to you? Yes / Somewhat / No

3. How would you rate the navigation flow between screens? Excellent / Good / Fair / Poor

4. Were instructions clear throughout the process? Yes / Somewhat / No

5. Overall, how satisfied were you with your Spin Spotter experience?

Very Satisfied / Satisfied / Neutral / Unsatisfied

6. Additional Comments:

ID	Description of Problem	Prototype Screen(s)	Observed Cause	Recommended Fix / Action
U1	Users hesitated before tapping bias highlights; unclear they were interactive.	Screen 2 – Article View	Highlight color looked static; no hover/tap hint.	Add subtle animation or underline effect when user hovers/taps a bias phrase. Include microtext: ‘Tap to learn why.’
U2	Confusion during feedback step; unclear difference between ‘Fair’ and ‘Neutral.’	Screen 3 – Feedback / Reflection	Labels too similar; missing tooltip or short explanation.	Replace with ‘Balanced’ and ‘Unsure.’ Add short definition bubbles for clarity.
U3	Navigation loop unclear after submission; user didn’t realize they could start a new analysis.	Screen 3 → Screen 1 transition	No restart prompt displayed clearly.	Add confirmation page or visible ‘Analyze another article’ button after submission.

Key Observations:

- Users quickly understood the app’s purpose.
- Confusion arose between “Fair” and “Neutral” ratings.
- Restart feature was not clearly visible.

Recommendations:

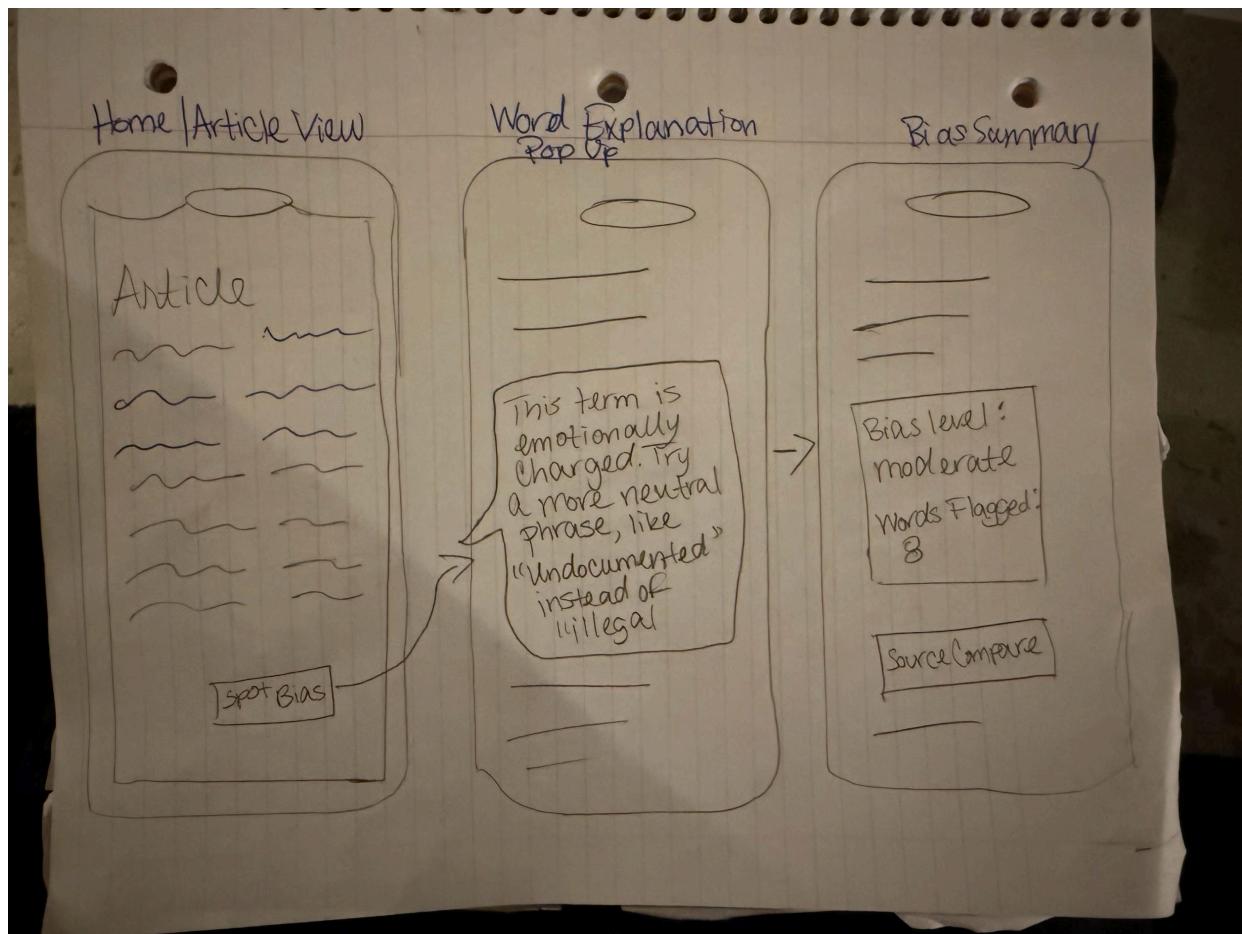
- Clarify feedback labels (e.g., “Unsure” instead of “Neutral”).
- Include a visible restart or confirmation option after feedback submission.

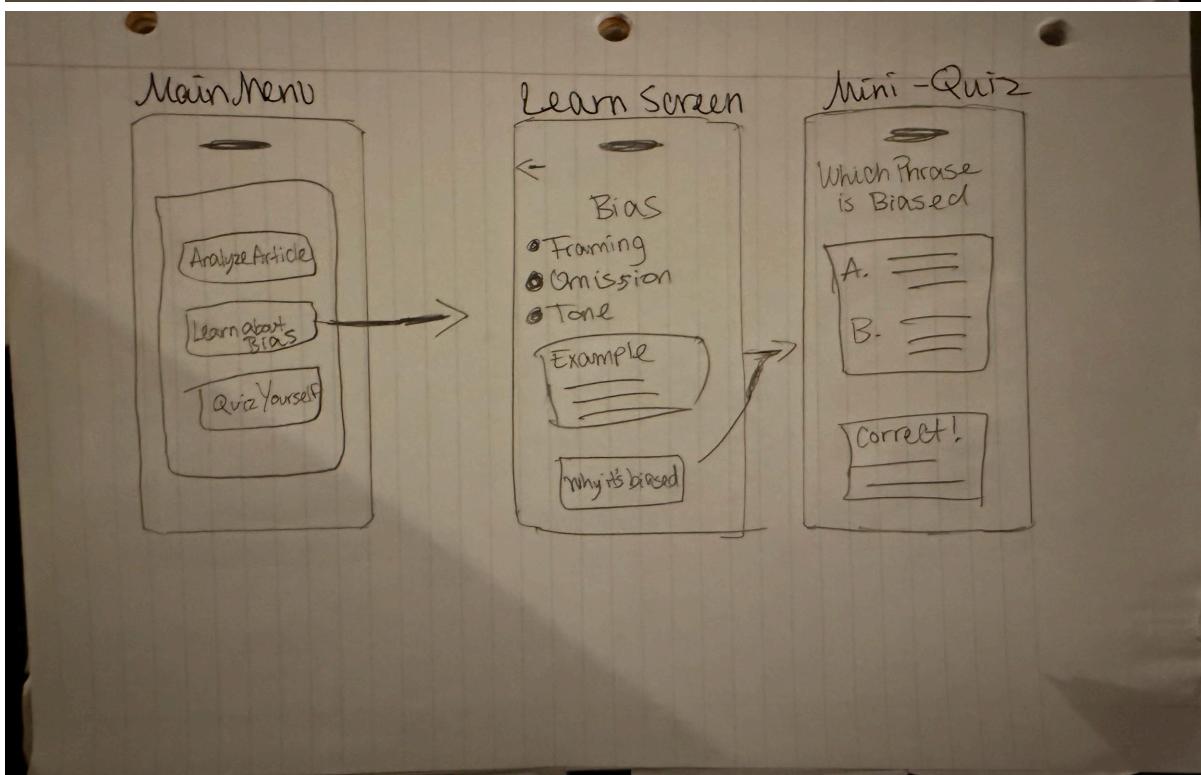
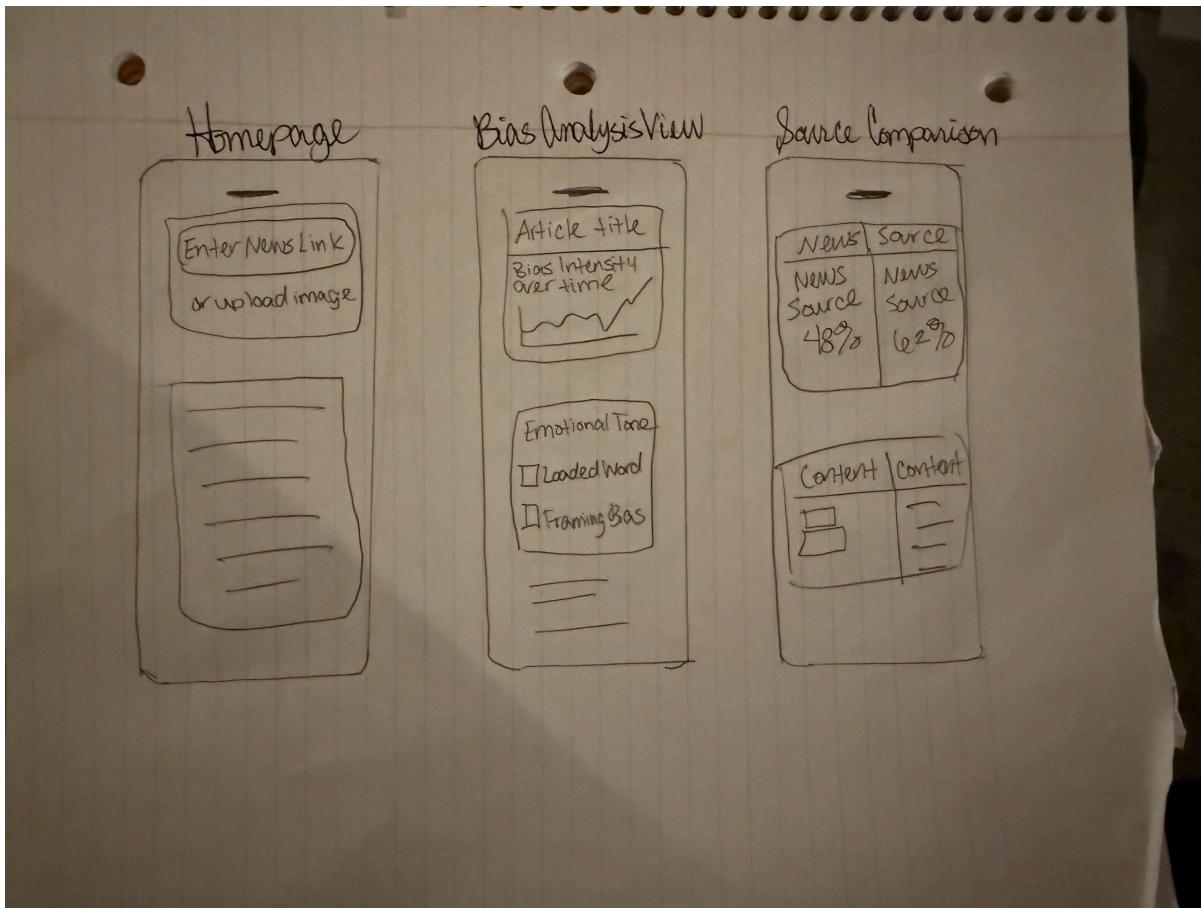
Usability Evaluation Feedback Analysis

#	Prototype Screen Provide link to images and circle relevant part with optional annotations	User's feedback/ critical incidence/ problem	Reason for negative feedback / breakdown	Scope which interface/function is impacted	Severity (High/ Medium/ Low) and Justification for giving that rating	Way(s) to rectify and any Tradeoffs (i.e., why the fix might not work)
1	https://drive.google.com/file/d/13a_LHLTmwVEXxMw9DSTwtAI-oEL90OsSe/view?usp=drive_link Page 2	• Advanced search option not pictured	Because they wanted to see what they could do for the advanced option	Page 2	High – a user should be able to use all of the options available, it shouldn't be there if we can't use it	Add additional pages that would come from an advanced search.
2	https://drive.google.com/file/d/13a_LHLTmwVEXxMw9DSTwtAI-oEL90OsSe/view?usp=drive_link page 3 & 6	• Unable to share	Not really negative but they are wanting to be able to share their findings	Pages 3 & 6	Low – it's not originally in the scope, but it is something that would be helpful for a user	Add a share button,
3	https://drive.google.com/file/d/13a_LHLTmwVEXxMw9DSTwtAI-oEL90OsSe/view?usp=drive_link Page 6	• Didn't know what some of the different colors meant	Unable to understand what	Page 6	Medium – It's important for the user to be able to use the app easily, but it's also important not to fill the page with too much information that it overloads the users	Add a tutorial or better explanations when a button is selected

Paper Sketches

Maleek





This sketch explores how users can analyze and compare news articles to understand bias across different sources. The design emphasizes transparency and education by letting users view highlighted bias, see explanations, and compare reporting styles between outlets.

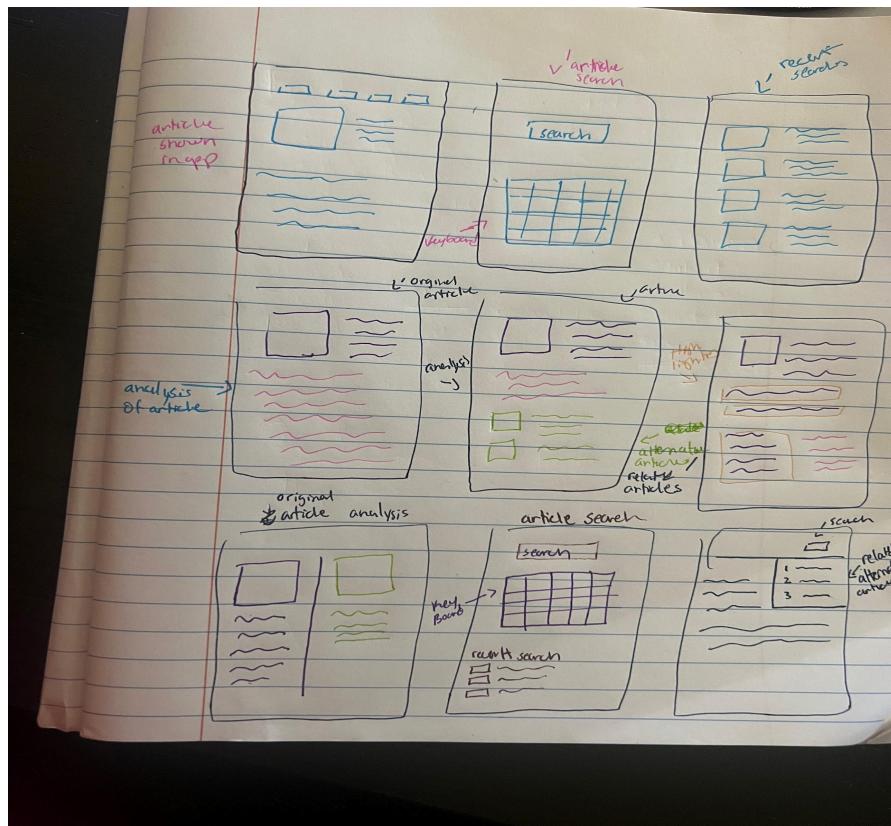
Overview of the Sketch:

- The first screen shows the main article view, where users can paste or upload a news link and activate bias detection through the “Spot Bias” button.
- The second screen displays highlighted words and phrases within the article. Tapping a highlight opens a small pop-up explaining *why* the word is biased and suggests a more neutral alternative.
- The third screen presents a summary of the analysis, showing the overall bias level and the number of flagged words, along with a button to compare bias scores across related news sources.

Design Goal:

To provide users with quick, clear feedback on biased language while also giving context through side-by-side source comparisons. This design encourages users to recognize framing and emotional manipulation in media and promotes more informed, critical reading habits.

Tyler



This sketch explores how users can search, analyze, and compare news articles within the SpinSpotter app. The design emphasizes transparency by letting users see bias highlights directly within an article and compare how different sources frame the same topic.

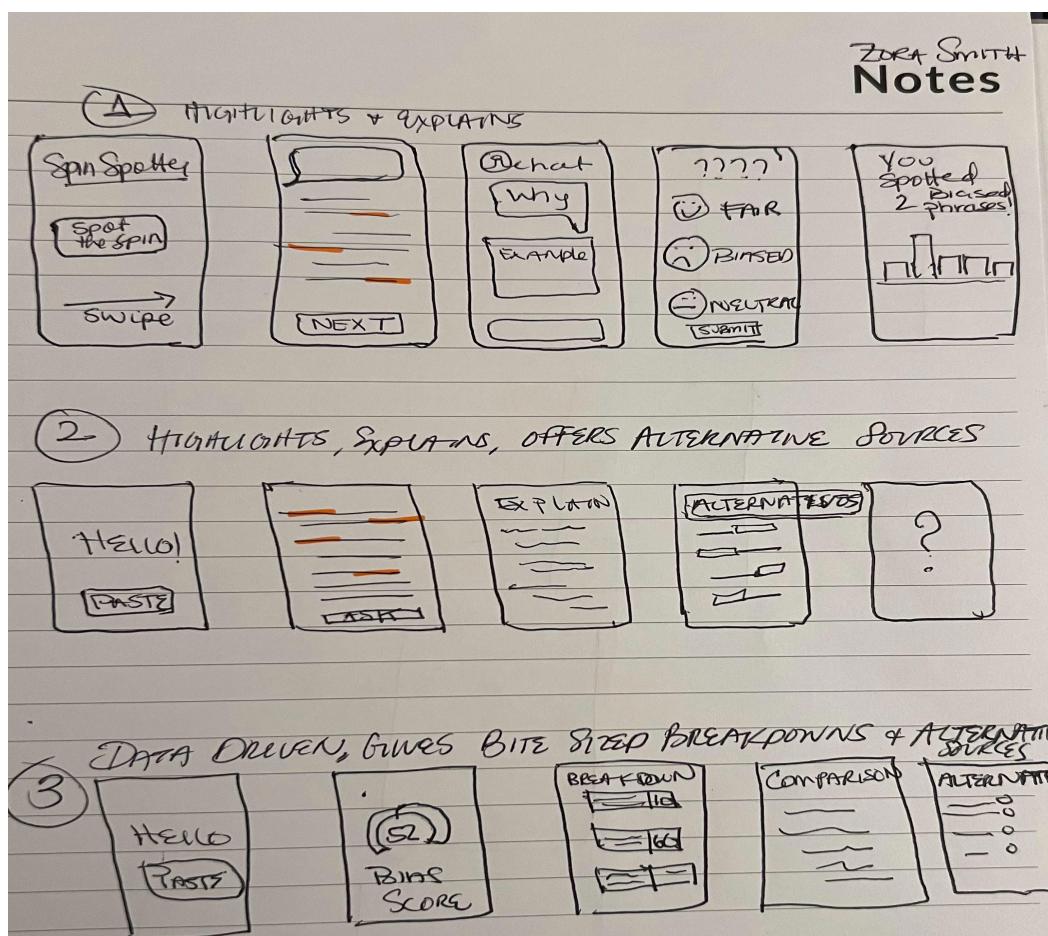
Overview of the Sketch:

- The top row shows a home interface where users can either view an article summary, perform a search, or revisit recent searches.
- The middle row presents the article analysis stage, displaying both the *original article* and a *bias-highlighted version* side by side. Users can tap highlighted words to view brief explanations of why those terms are biased.
- The bottom row introduces search filters and a comparison view that displays related or alternative articles along with their individual bias levels.

Design Goal:

To provide users with clear visual feedback and contextual comparisons that make bias easier to understand. This design helps users not only recognize biased phrasing but also evaluate how different outlets report the same story, fostering critical thinking and media literacy.

Zora



This sketch presents a learning-centered interface designed to help users recognize and understand media bias through guided examples, explanations, and interactive elements. It combines education with engagement by showing bias in context and prompting users to reflect on what they've learned.

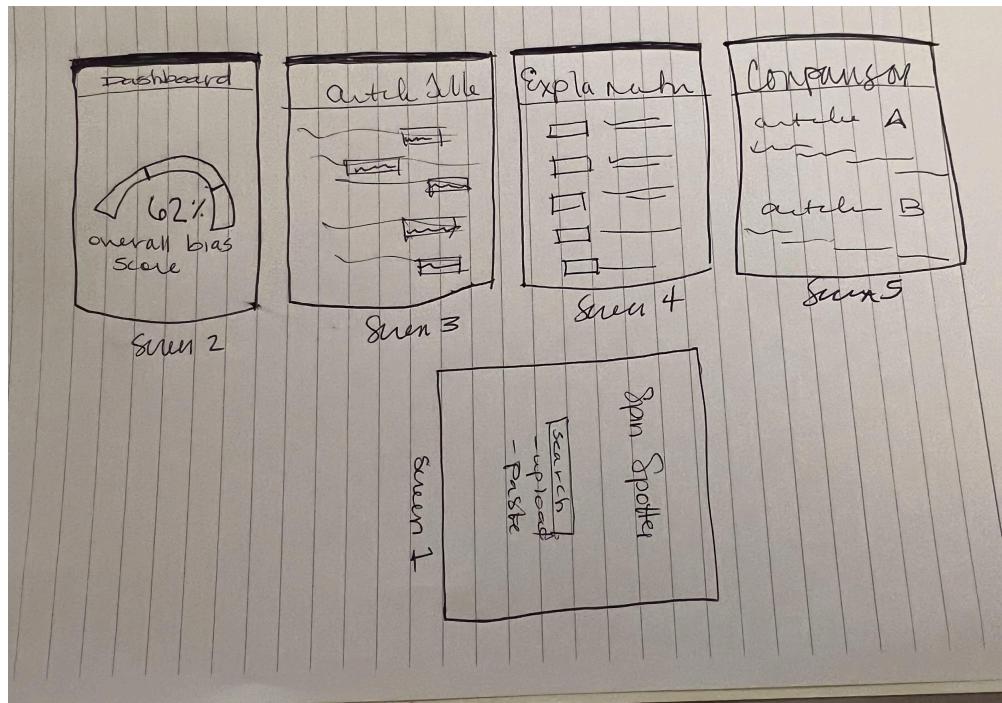
Overview of the Sketch:

- The first sequence introduces an article with highlighted biased phrases and a "Spot the Spin" feature that lets users identify bias themselves.
- The second section includes a chat-style explanation screen where users can ask "Why?" or view examples to understand specific bias types (e.g., framing, loaded language).
- The third part transitions into an evaluation phase where users classify statements as *Fair*, *Biased*, or *Neutral* and then receive feedback like "You spotted 2 biased phrases!" accompanied by a short results summary or graph.

Design Goal:

To build users' bias literacy and critical thinking skills by transforming detection into an interactive learning experience. This design teaches users not just to spot bias, but to understand *why* it appears and how to assess it accurately in future reading.

Prototype 1.0



This sketch introduces a conversational-style interface that focuses on accessibility, interactivity, and personalization. It's designed for users who prefer a guided, dialogue-based experience to explore bias in news articles through search, explanation, and comparison tools.

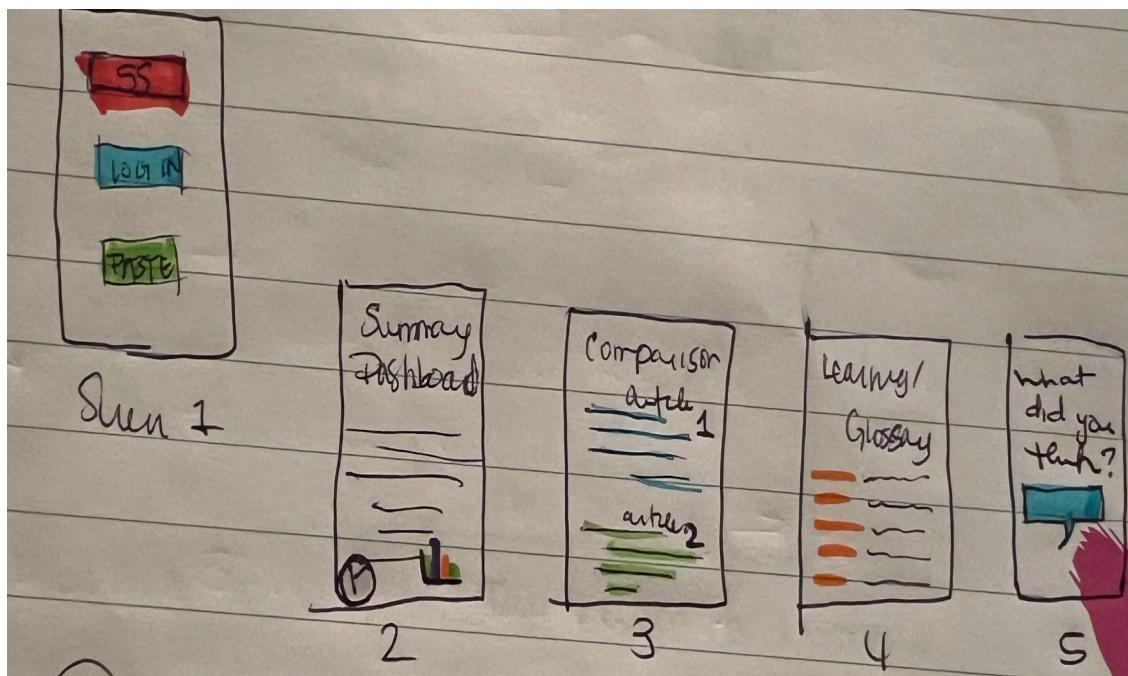
Overview of the Sketch:

- Screen 1 – Home/Search: The entry screen invites users to paste, upload, or search for an article to analyze.
- Screen 2 – Dashboard: Displays an overall bias score (e.g., 62% Overall Bias Score) using a simple gauge graphic for quick interpretation.
- Screen 3 – Article View: Shows the analyzed article with highlighted biased words. Users can click any highlight to view a more detailed explanation.
- Screen 4 – Explanation View: Provides categorized bias explanations (e.g., emotional tone, framing, or word choice), making it easy to understand *why* certain language is biased.
- Screen 5 – Source Comparison: Compares two articles side-by-side to show how different sources frame the same story, helping users identify ideological differences in coverage.

Design Goal:

To make SpinSpotter more interactive, user-friendly, and adaptable, blending automated analysis with conversational clarity. This prototype emphasizes transparency and user engagement, allowing users to actively explore, question, and adjust how they interact with media content.

Prototype 1.1



This sketch highlights a data-focused version of SpinSpotter designed to give users detailed insights, analytics, and personalized learning feedback. The design blends bias detection, data visualization, and user reflection to create a well-rounded experience that encourages both awareness and engagement.

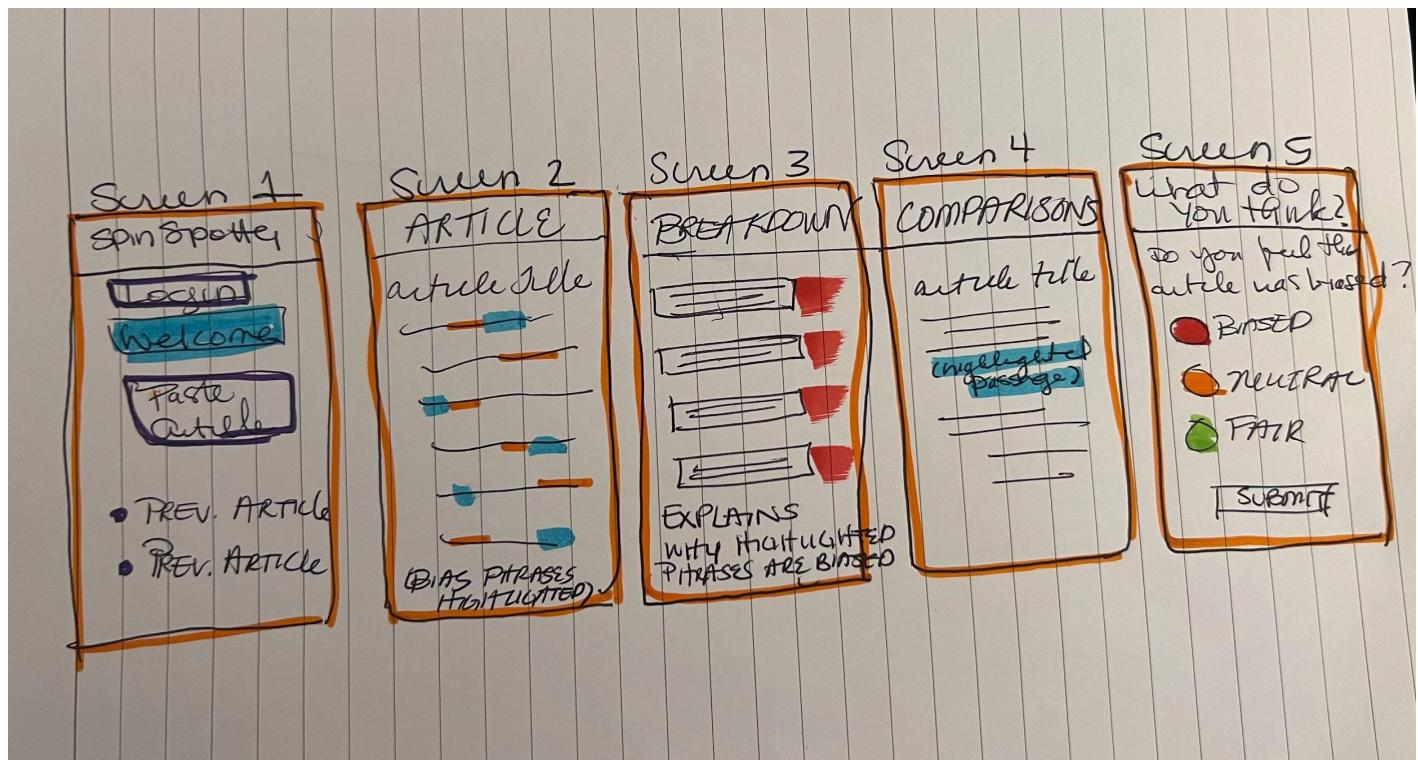
Overview of the Sketch:

- Screen 1 – Login & Paste: The user begins by logging in or pasting a news article link to initiate bias detection.
- Screen 2 – Summary Dashboard: Displays an overview of the article's bias results with visual graphs (e.g., pie or bar charts) to represent overall bias level, tone, and emotional balance.
- Screen 3 – Comparison View: Presents two articles side by side for direct comparison, showing differences in word choice, tone, and framing between sources.
- Screen 4 – Learning/Glossary: Provides key definitions and examples of bias types, allowing users to learn from their own analysis results.
- Screen 5 – Reflection Page: Prompts users with "What did you learn?" or similar reflective questions to reinforce understanding and promote self-assessment.

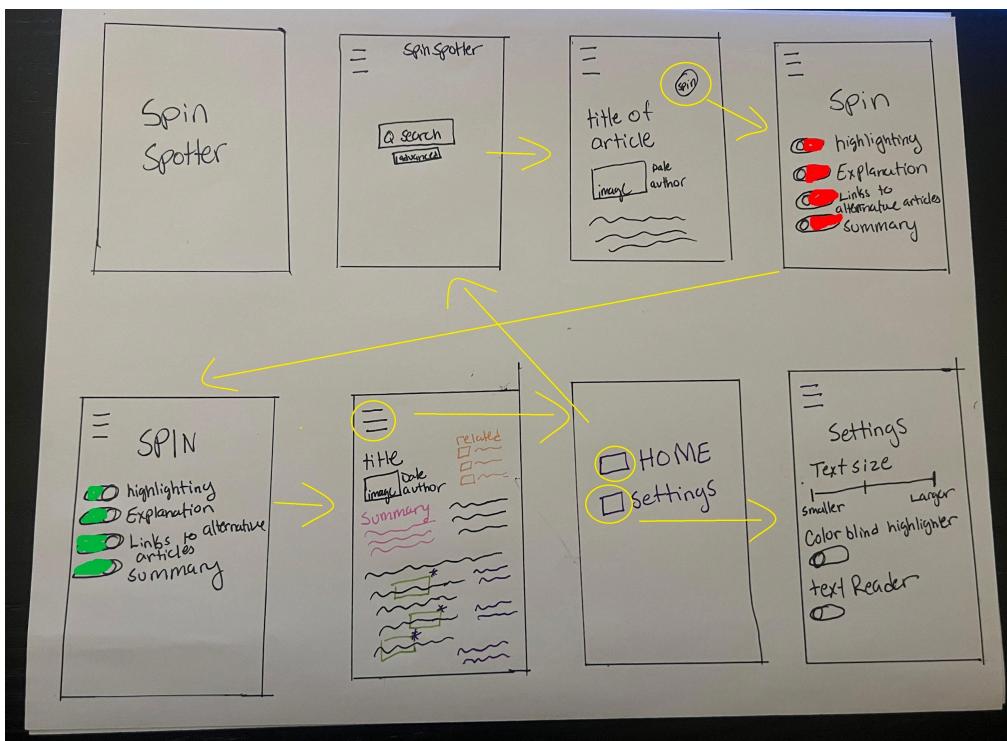
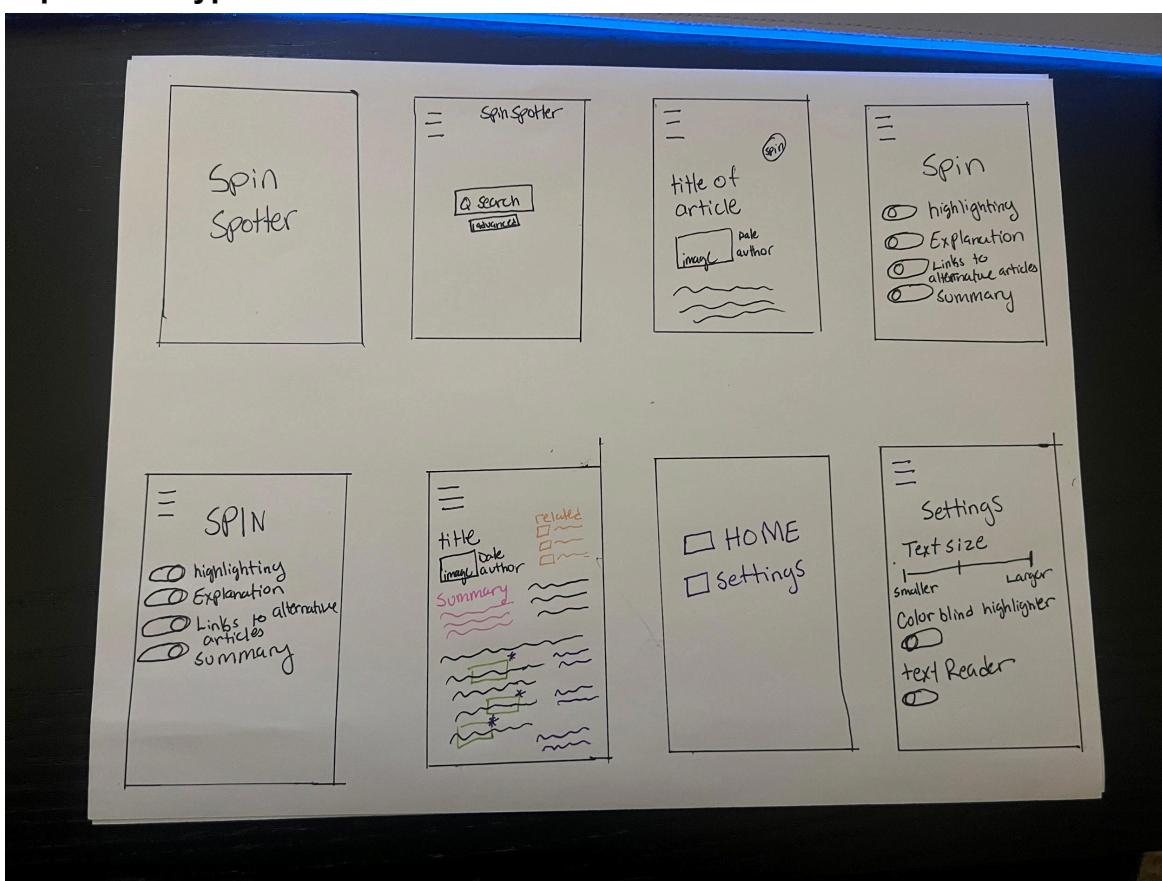
Design Goal:

To give users in-depth bias analytics supported by educational tools and interactive reflection. This prototype emphasizes transparency and self-guided learning by combining measurable data with contextual understanding.

Prototype 1.2



Paper Prototype



This sketch represents the final integrated flow of the SpinSpotter prototype, emphasizing usability, accessibility, and dynamic feature interaction. The design visualizes how users move through the app — from input to bias analysis to customization — while maintaining a clean, consistent interface.

Overview of the Sketch:

- Screen 1 – Launch Page: Displays the SpinSpotter logo, leading into the main interface.
- Screen 2 – Search Page: Users can search for or paste article links to analyze, with an option for “advanced” search filters.
- Screen 3 – Article Page: Shows the selected article with title, image, author, and content. A “Spin” button activates bias detection features.
- Screen 4 – Spin Control Panel: Allows toggling features on or off, including Highlighting, Explanation, Links to Alternative Articles, and Summary.
- Screen 5 – Active Spin View: Displays the article with color-coded highlights and labeled bias types. Related articles and summaries are visible for context.
- Screen 6 – Home/Settings Navigation: Lets users switch between home and settings.
- Screen 7 – Accessibility Settings: Offers text size adjustment, color-blind highlighter mode, and a text reader option for better accessibility.

Design Goal:

To create a fully functional, inclusive system that combines real-time bias detection with user personalization. The flow highlights how accessibility, clarity, and flexibility work together — allowing users to control their experience while gaining deeper understanding of media bias.