

INFO Challenge 2025

Category: Design

Challenge Name: AI Recognition Tool Design

Team Number: IC25078

AI Verify

Verify government related news with trusted sources and AI-powered detection.

Meet the team



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I Introduction

We aim to address the rise of fake news by Gen AI, driven by technological advancements, legal constraints, and market gaps.

Rapid Development of Generative AI Tools

- AI-generated content was rare until early 2023 but surged as AI-generation tools became widespread.¹⁾

Lack of Liability on Social Media Platforms

- Social media are not liable for fake content (*Communications Decency Act*).²⁾
- For U.S. adults under 30, social media were the primary election news source.³⁾

Absence of AI-Powered Solutions in the Industry

- Current AI detection focuses on fraud detection, assessing authenticity to identify AI-generated content, and generating metadata analysis.⁴⁾

**The general public, regardless of AI expertise,
needs a reliable detection/checker tool
to verify AI-generated misinformation,
because access to credible information
strengthens digital media literacy.**



MindPetal supports diverse solutions to advance government initiatives. Our AI detection tool strengthens fact-based communication between the government and the public, expanding MindPetal's role in AI-driven governance.

II User Research

Before designing the service, we conducted user research on interactions, needs, and challenges with AI detection and fact-checking.

Research Questions

What features and functionalities do users expect from AI-detection & fact-checking tools?

What challenges do users face when verifying misinformation with AI-detection & fact-checking tools?

Methodology

Observation &
Contextual Inquiry
with Think-Aloud

Procedure

- Three fact-checking tasks using AI detection tools (Text & Image)
- Post-interview on their task experience and prior exposure to fake news or AI detection

Participants

Five UMD graduate students recruited

Insight Extraction

To derive actionable solutions, we analyzed qualitative data, identified pain points, and grouped behaviors by the stages of AI detection tool use.

AI-Assisted Data Synthesis

Then, we used ChatGPT and Claude.ai to synthesize primary insights through thematic analysis and journey map.

Based on the **thematic analysis**, four themes were identified:

Expectations for Feature Improvements

- Need for **explanations**
- **Cross-check** references
- **Personal mental models** to interpret the results

Usability & Interaction Barriers

- Expects **Drag & Drop**
- **Input method** → Ease of use

Trust & Transparency in AI Detection

- **Concrete** AI-generated patterns
- **Structured Result screen** interface reinforce trust

Fact-Checking & Verification Behavior

- **Source** validation
- Specific, over vague Statements
- Integrated fact-checking flow

Based on the **journey mapping**, we found that:

Discovery & Access

Users need **intuitive navigation** and **onboarding** to effectively engage.

Input

Users expect **diverse input options** and **clear feedback** to improve usability.

Review Results

Providing **contextual explanations** and **visual clarity** helps interpretation.

Evaluate & Decide

Transparent reasoning and **source verification** strengthen trust.

III Product Design

Product Concept

AI Verify

AI-Detected, Truth-Protected.

Value Proposition

Detect AI-driven fake news
and enhance public media literacy

Target Audience

General public with minimal technical expertise, seeking to fact-check news

Main Functionalities

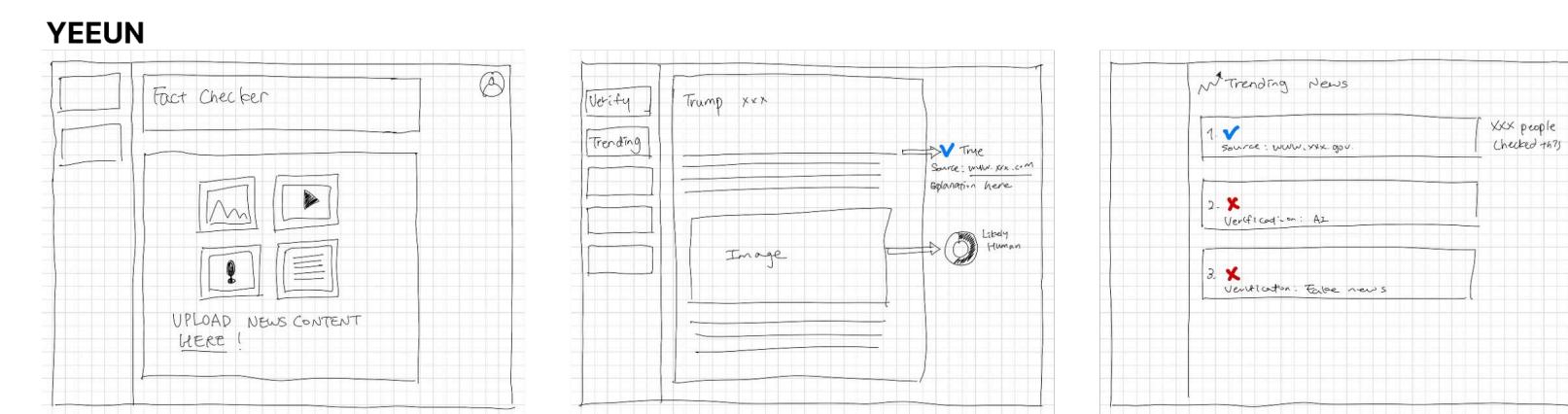
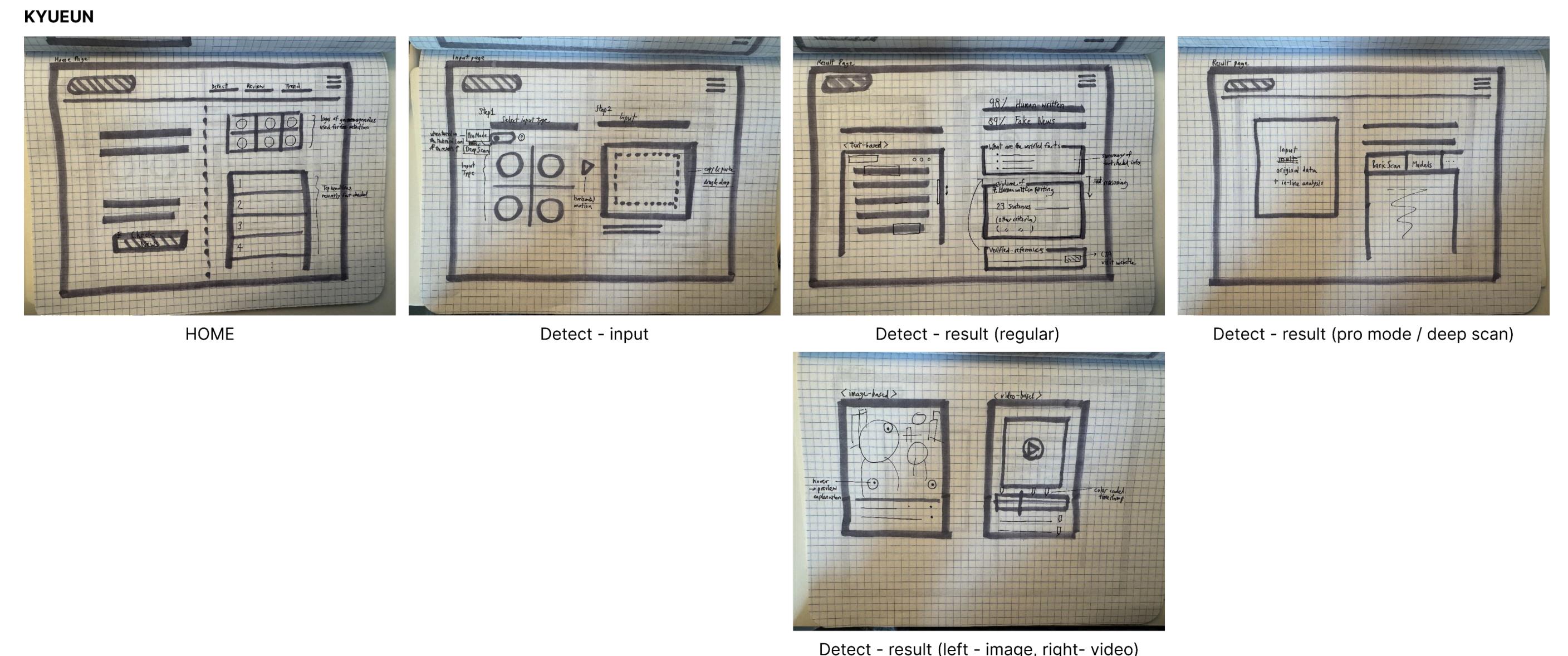
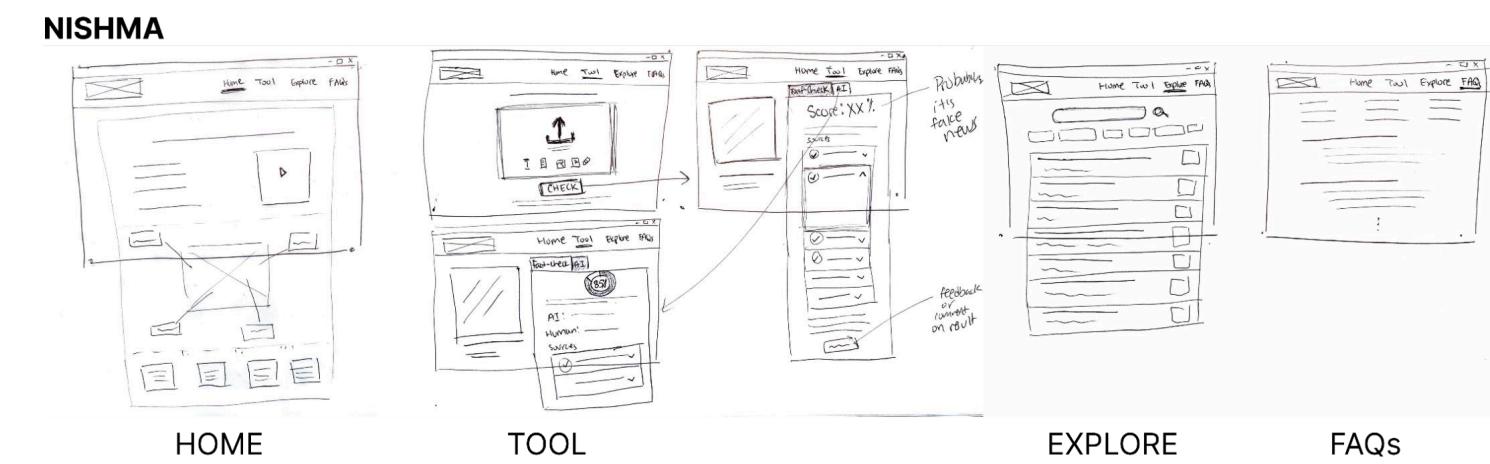
Identify AI-generated content
and verify government-related fake news

Key Features

- Support multimedia input
- Connect to primary sources
- Verify information based on government statements and trusted news agencies

Brainstorming

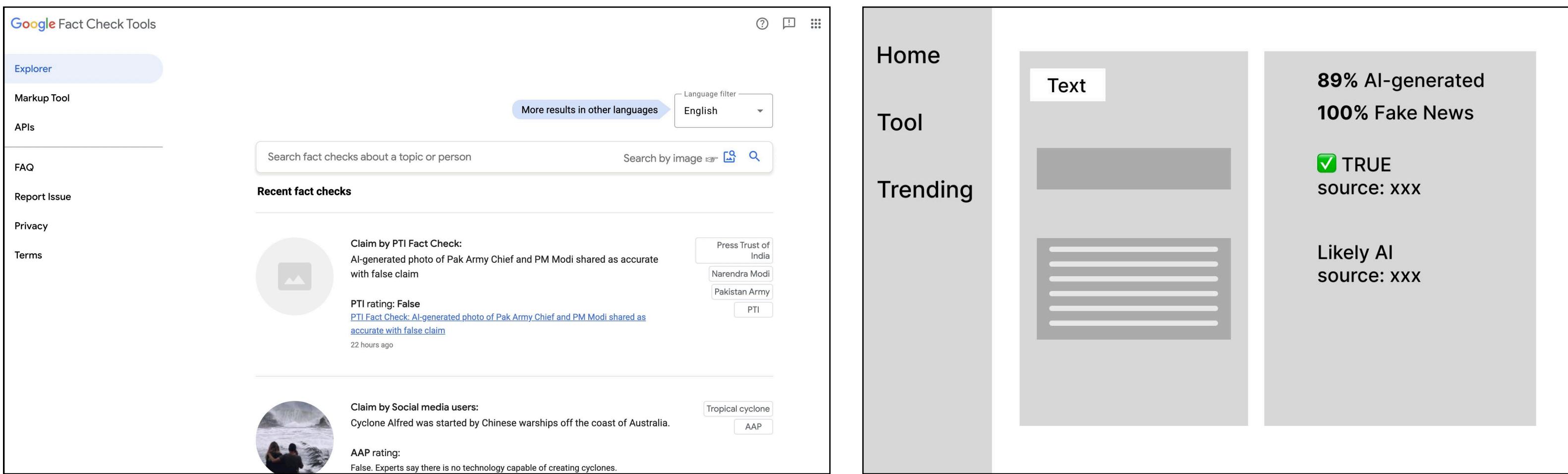
We came up with 4 sections of websites, which are Home, Tool, Result, and Trending News.



Wireframes V1

First, we came up with a vertical navigation bar, referencing Google Fact Check Tools.

However, we realized we need more space for the verification section.



This wireframe shows a vertical navigation bar on the left with links like 'Home', 'Tool', 'Trending', 'Text', and '89% AI-generated 100% Fake News'. The main area displays recent fact checks, including one from PTI Fact Check about an AI-generated photo of Pak Army Chief and PM Modi, and another from Social media users about Cyclone Alfred.

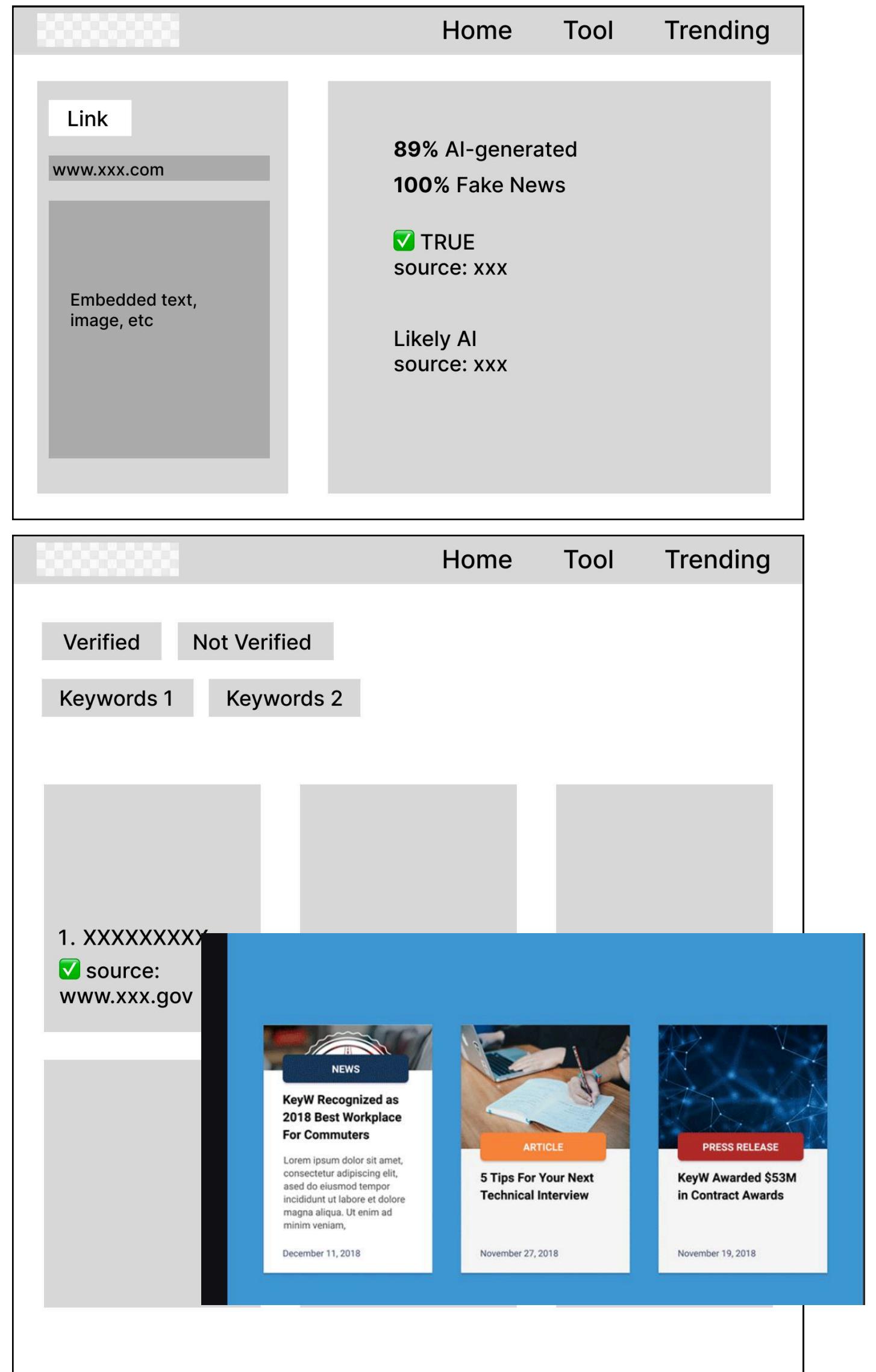
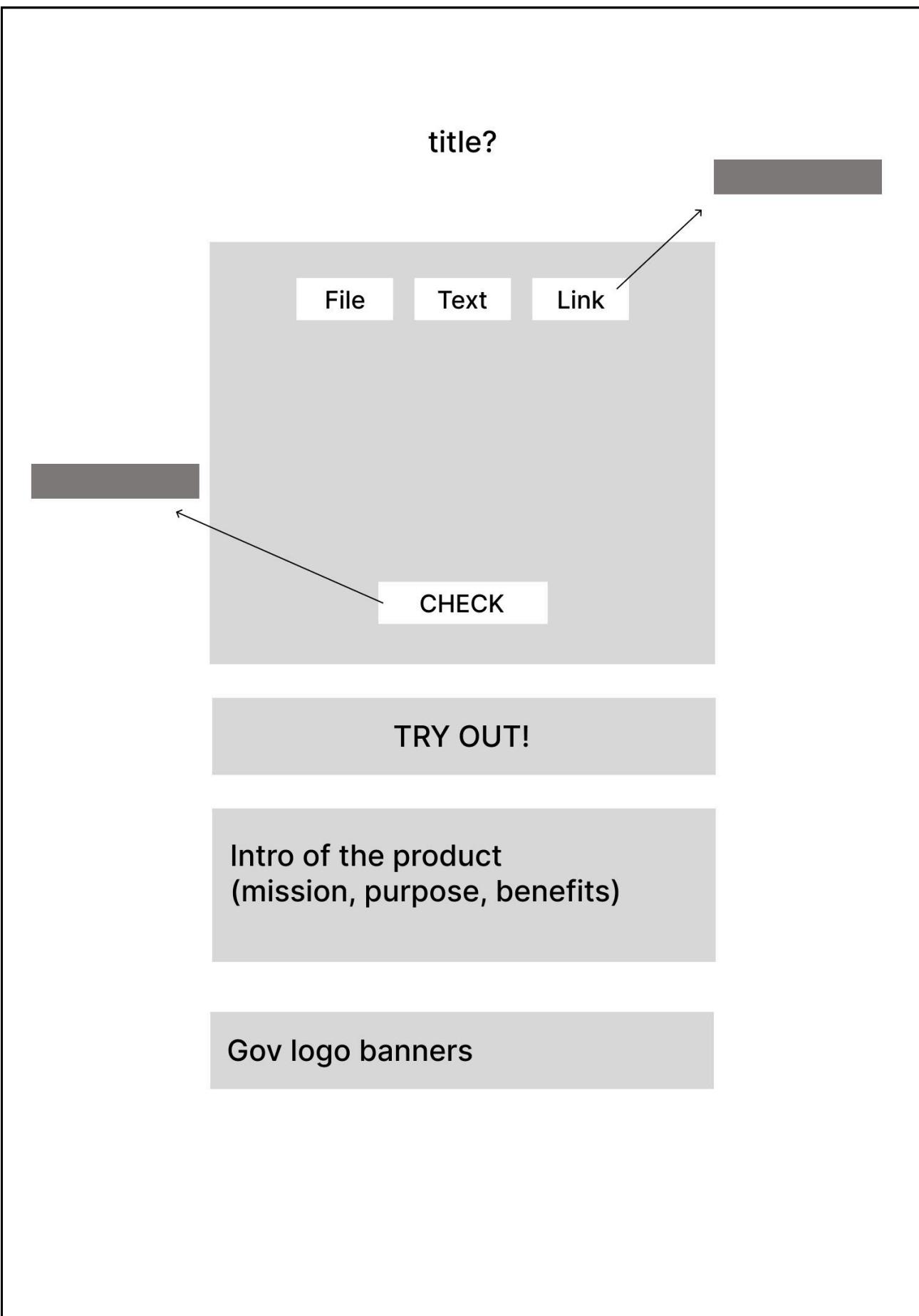


This wireframe illustrates a proposed redesign. It includes a 'File' or 'Text' input field, a 'Link' button, a 'CHECK' button, and a 'TRY OUT!' button. To the right, there's a 'Content type' section with tabs for 'AI' and 'Fake News', and a 'verified vs. not verified' comparison. Below that are sections for 'News Topics' (with a 'Politics' tab), 'Trending news ranking' (listing items 1 and 2 with their respective source and status), and 'Gov logo banners'.

Wireframes V2

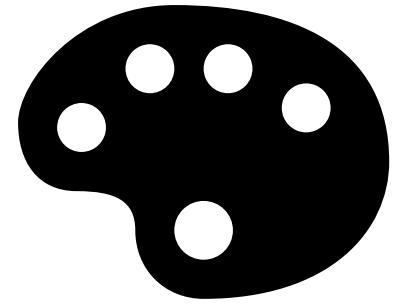
We moved the navigation bar to the top.

For the better visibility, increased the space of the “results” section; replaced news thumbnails with card format.

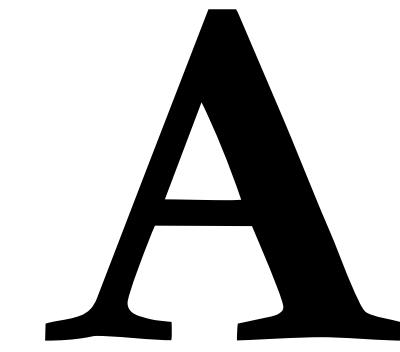


Before creating our prototype, we established a design system to organize and standardize elements such as colors, typography, layout, and components to provide a cohesive user experience.

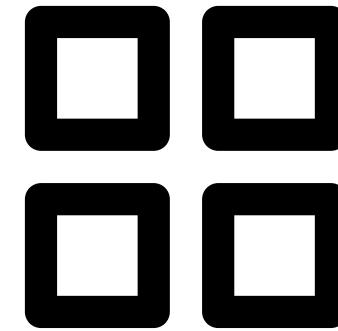
Color Palette



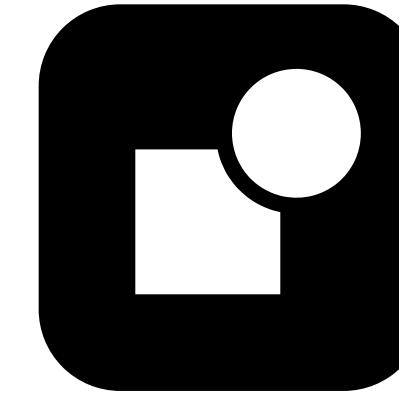
Typography



Grid Layout



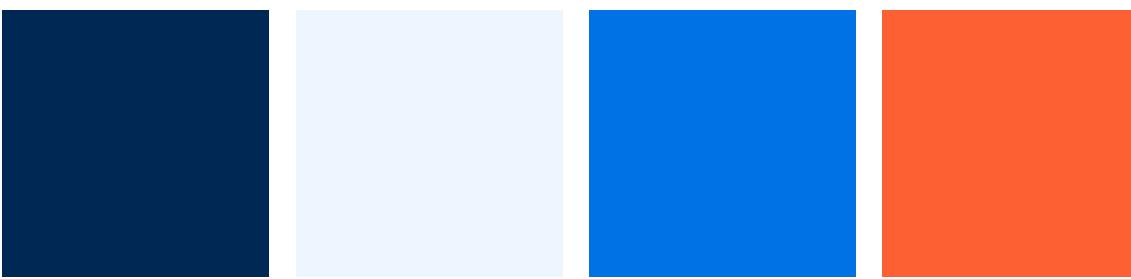
Components



Color Palette

Design Principle:
Trust,
Authority, and
Accessibility

Main Colors



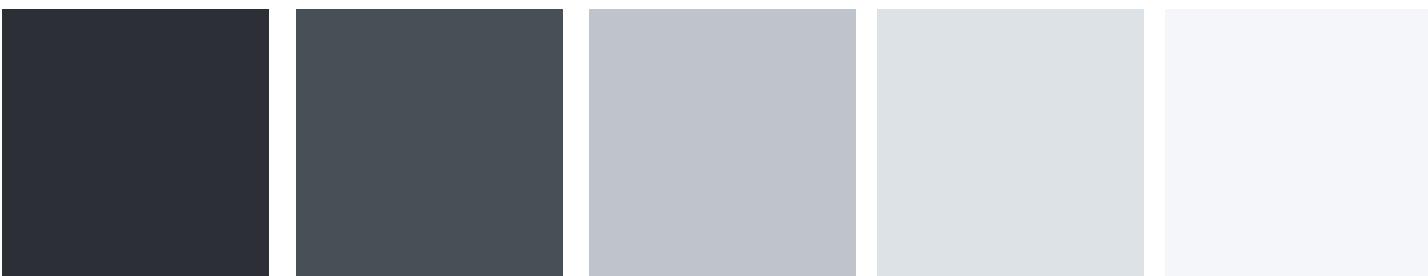
Signal Colors



Black and White



Greys



Typography

Main goals:
Readability,
Clarity, and
Professionalism

Brand Name Poppins Bold – AI Verify

Heading 1 Open Sans Bold (32)

Heading 1 Open Sans Regular (32)

Heading 2 Open Sans SemiBold (24)

Heading 2 Open Sans Regular (24)

Normal Body Text Open Sans SemiBold (20)

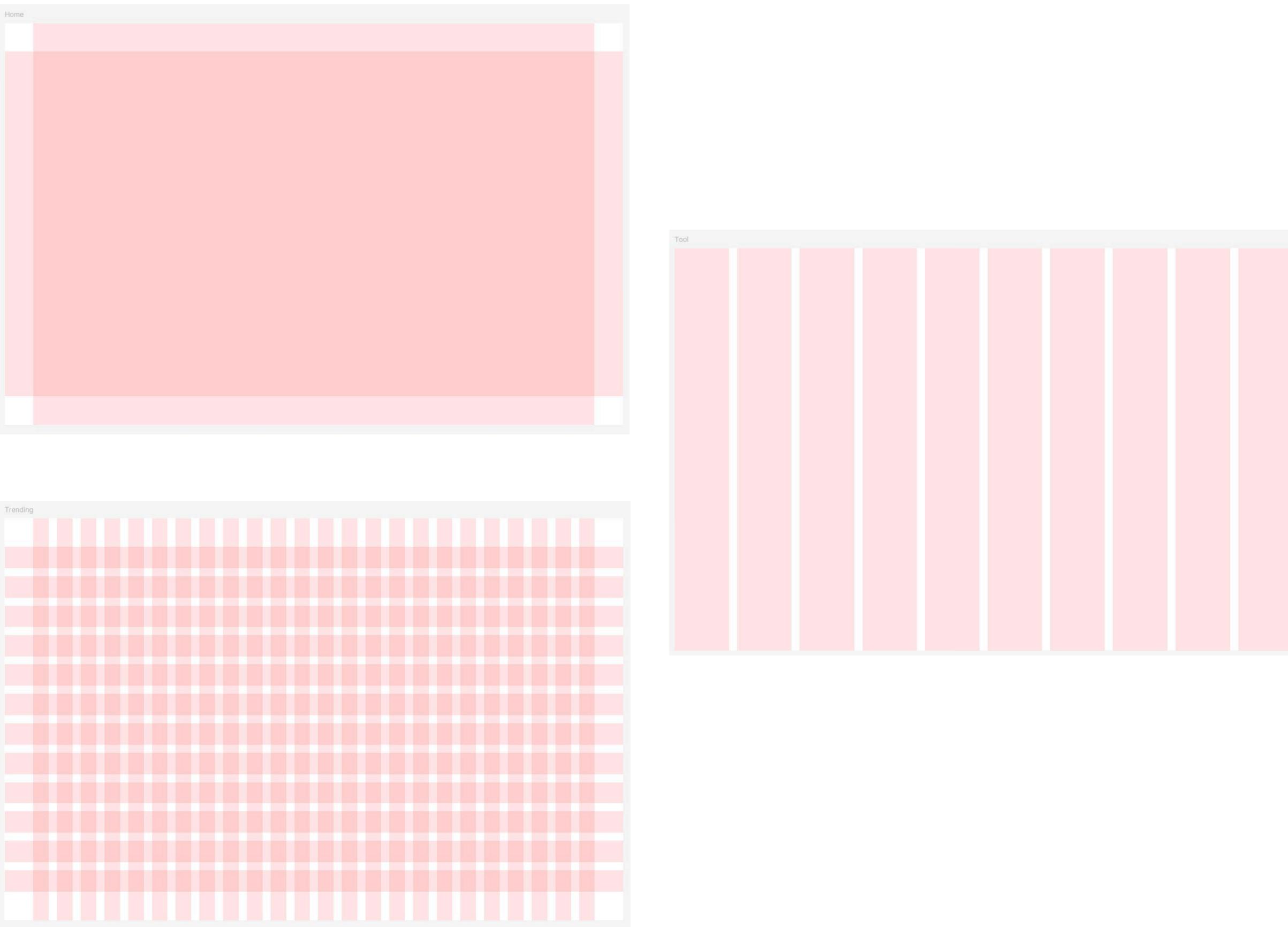
Normal Body Text Open Sans Regular (20)

Small Body Text Open Sans Light (18)

Grid Layout

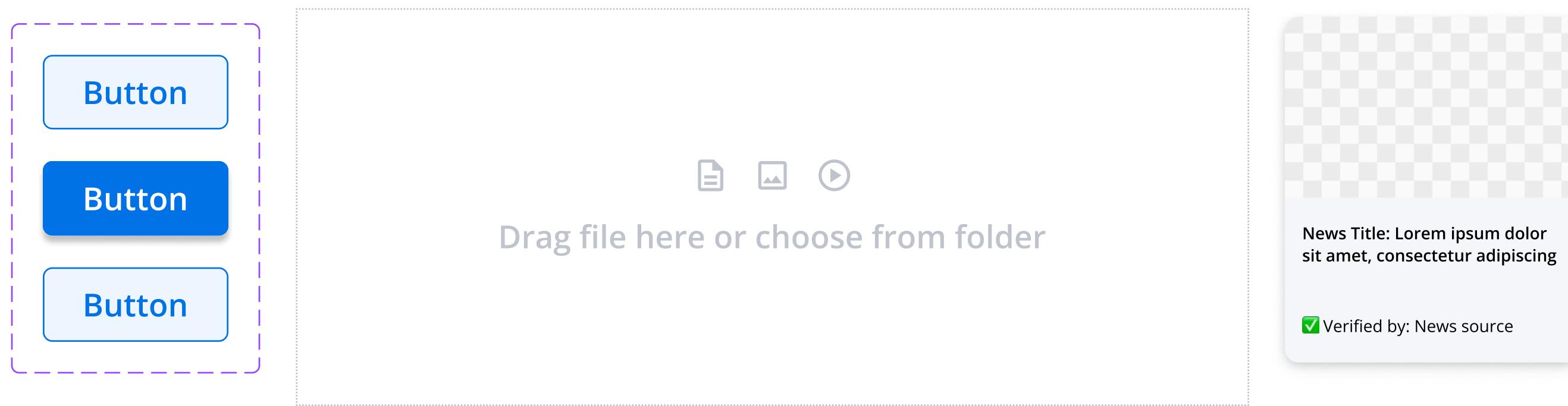
We identified 3 types of grid layouts for our screens:

Manuscript for the Home Page, Columnar for the Verification Page, and Hierarchical for the Trending Page



Components

**When creating components,
we focused on: scalability,
accessibility,
responsiveness, and
consistency.**



AI Verify

Home

AI Verification

News Feed

IV Prototypes

Interactive Prototype

AI Verify

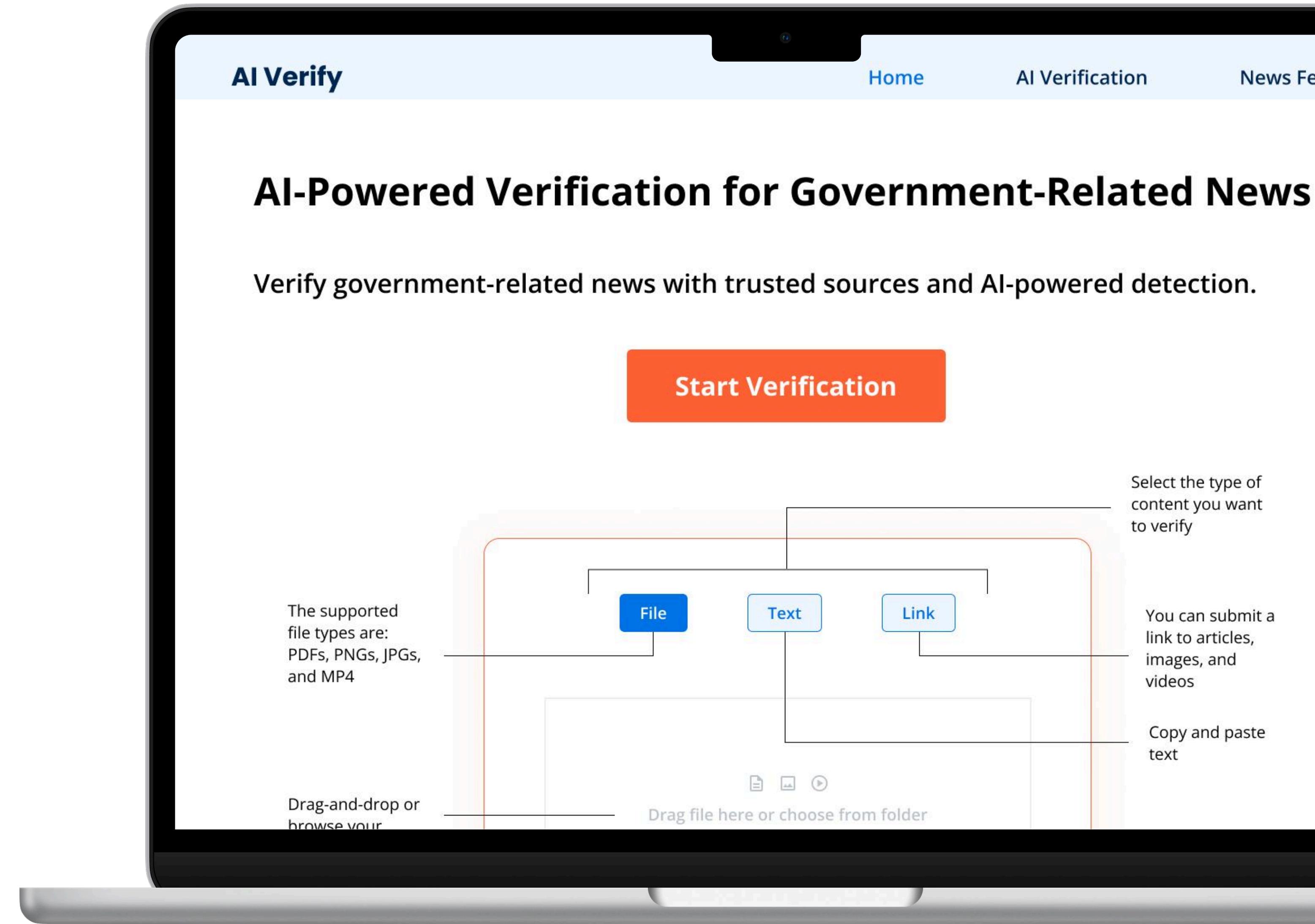
Verify government related news with trusted sources and AI-powered detection.

Check the interaction mode [HERE](#).

The screenshot shows a mobile device displaying the AI Verify application. The top navigation bar includes 'AI Verify' (highlighted in blue), 'Home', 'AI Verification', and 'News Feed'. The main title 'AI-Powered Verification for Government-Related News' is displayed prominently. Below it is a subtitle: 'Verify government-related news with trusted sources and AI-powered detection.' A large orange button labeled 'Start Verification' is centered. To the right, there's a section titled 'Select the type of content you want to verify' with three options: 'File', 'Text', and 'Link'. Below this is a large input area with a placeholder 'Drag file here or choose from folder' and icons for file types. To the left of the input area, text specifies supported file types: PDFs, PNGs, JPGs, and MP4. At the bottom, instructions for interacting with the interface are provided: 'Drag-and-drop or browse your' (with a file icon), 'Copy and paste text' (with a clipboard icon), and 'Drag file here or choose from folder' (with a folder icon).

Home

Introduces the concept of the product to the users with a demo.



AI Verification

Upload multimedia content
to verify and fact-check.

The image shows a laptop screen with a white background. At the top, there is a blue header bar with the text "AI Verify" on the left and "Home", "AI Verification", and "News Fe" on the right. Below the header, the main content area has a light gray background. In the center, the text "Submit Content for Verification" is displayed in bold black font. Below this, a sub-instruction reads "Upload a file, enter text, or provide a link to assess its authenticity and source credibility." There are three buttons at the bottom of this section: "File" (blue), "Text" (light blue), and "Link" (light blue). Below these buttons is a large rectangular input field with rounded corners. Inside the field, there are three small icons: a document, a link, and a circular arrow. Below the icons, the text "Drag file here or choose from folder" is written in a smaller, gray font. At the very bottom of the page, there is a blue button with the text "Verify Now" in white.

Results - Image

Detect authenticity
and the source of the image.

AI Verify

Home AI Verification News Fe

Input Type: Image

This content is 89% likely AI Generated

Likely generated from ChatGPT

AI generated

1. The fingers on the hand are distorted and un-humanlike.
2. The flag is warped.
3. The face of the person has an airbrushed texture.
4. The text on the sign is not a real language and illegible.

Verification sources

US government

According to US government congress, there is no evidence that this photo was ever taken in public speech.

Results - Text

Verify the source of text
and detect if it's AI generated.

The image shows a mobile application interface for "AI Verify". The top navigation bar includes "AI Verify", "Home", "AI Verification", and "News Feed". The main content area has two sections: "Input Type: Text" and "Here's What We Found".

Input Type: Text

Text input: Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nunc vulputate libero et velit interdum, ac aliquet odio mattis. Class aptent taciti sociosqu ad litora torquent per conubia nostra, per inceptos himenaeos. Curabitur tempus urna at turpis condimentum lobortis. **AI Generated Sentence** (highlighted in red)

Here's What We Found

- This content is 89% likely AI Generated**
- This content has a 100% chance of being fake news**
- Likely generated from ChatGPT**

Deep scan

AI Generated Sentence
Use of common AI phrasing detected:
cast doubt

Result - Link

Verify the authenticity of the information in a link
(news, etc.)

AI Verify

Home AI Verification News Feed

Input Type: Link ↗

<https://www.cbsnews2.com/>

Europe scrambles to rearm as Trump threatens security guarantees and Russian threat looms. Here's what to know

By Helen Regan, CNN
5 minute read · Published 12:55 AM EST Fri March 7, 2014

CNN — European leaders have vowed to ratchet up security guarantees over the transatlantic alliance after the United States threatened to rip up 80 years of security guarantees over the trajectory of Russia's war in Ukraine.

Since taking office in January, US President Donald Trump has fundamentally changed transatlantic relations, suspended all military aid and intelligence sharing to Kyiv and again cast doubt that the US would defend its NATO allies if attacked.

With Russia posing what French President Emmanuel Macron called an "existential threat" to Europe, the continent is now scrambling to prepare for the once-unthinkable prospect of defending itself in a potential future conflict without the help of America.

And as the European Union leaders push for Ukraine and Europe to head in peace talks, they were joined by Ukrainian President Volodymyr Zelensky in Brussels on Thursday.

Zelensky announced he will visit Saudi Arabia next week to present an initial ceasefire plan.

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European leaders agree on defense spending surge at summit

A松露在... Europe needs to take control of...

Ukraine wants security guarantees from US and Europe. But will...

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Deep scan

This content is 89% likely AI Generated

⚠ This content has a 100% chance of being fake news

Likely generated from ChatGPT

✖ AI generated sentence

Use of common AI phrasing detected:

cast doubt

News Feed

Check and verify the trending news.

AI Verify

Fact-Checked News & Reports

Explore the latest verified government news and AI-analyzed reports.

Verified AI Generated Fake News

Economy Health Politics Society World

Filter

 Trump signs executive order creating task force to oversee prep for 2026 World Cup
✓ Verified by: CNN Politics

 Starmer welcomes EU moves to boost defence spending
✓ Verified by: CNN Politics

 China's foreign minister criticizes US tariffs and accuses the country of...
✓ Verified by: AP News

References

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Shearer, E., Lipka, M., Naseer, S., Tomasik, E., & Jurkowitz, M. (2024, October 10). *Americans' views of 2024 election news*. Pew Research Center. <https://www.pewresearch.org/journalism/2024/10/10/americans-views-of-2024-election-news/>

Virginia Tech. (2024, February 22). *AI and the spread of fake news sites: Experts explain how to counteract them*. Virginia Tech News. <https://news.vt.edu/articles/2024/02/AI-generated-fake-news-experts.html>

Appendix

Abstract

With the growing rate of AI-generated content and the rapid spread of deepfakes and fabricated news, it is becoming increasingly challenging for users to differentiate between credible information and misinformation/disinformation. As stated under Section 230 of the Communications Decency Act, social media platforms are not held accountable for hosting political disinformation, creating an urgent need for reliable AI-generated content detection tools. Fake news—often created and distributed in various multimedia formats like videos and articles—is continuing to spread, so the general public must have access to effective fact-checking mechanisms to verify content and enhance digital media literacy.

Our project aims to address this challenge by designing a comprehensive AI detection and fact-checking tool that prioritizes trust, transparency, and usability. We conducted user research testing of existing AI detection tools which revealed critical barriers, including lack of confidence in AI-generated assessments, usability challenges, and verification behavior gaps. Our solution is targeted towards general users regardless of technical expertise, offering AI-generated content detection alongside government-related news fact-checking. The system's core functionalities are designed to support the entire user journey. Users can input multimedia content, and the detection process delivers probability-based results by integrating AI and human verification, referencing primary government sources and trusted news agencies. To enhance credibility, the tool includes verified markers and redirection to authoritative sources for further validation. By empowering users to navigate misinformation, our project promotes credibility and transparency in digital media to bridge the gap between technology and informed decision-making.

Background

Rapid Development of Generative AI Tools

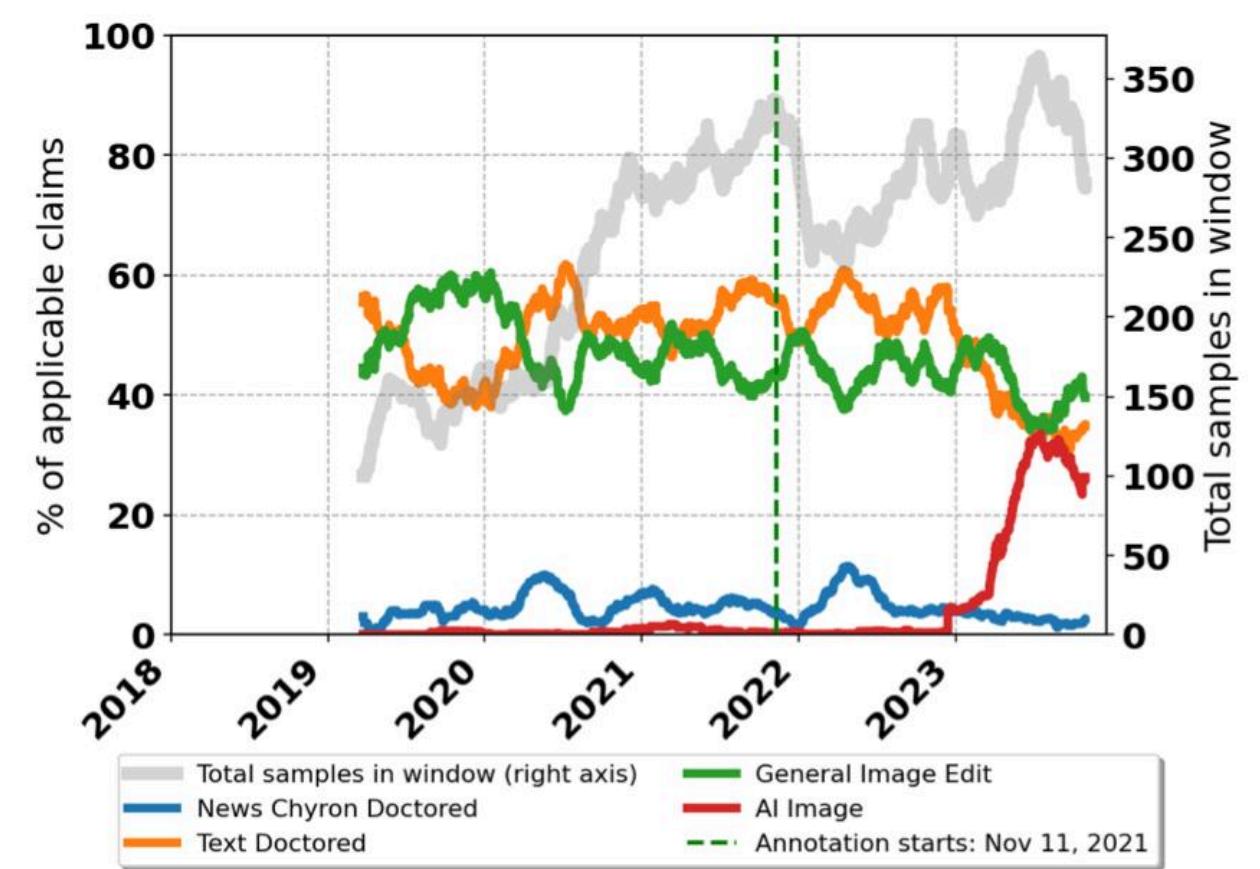
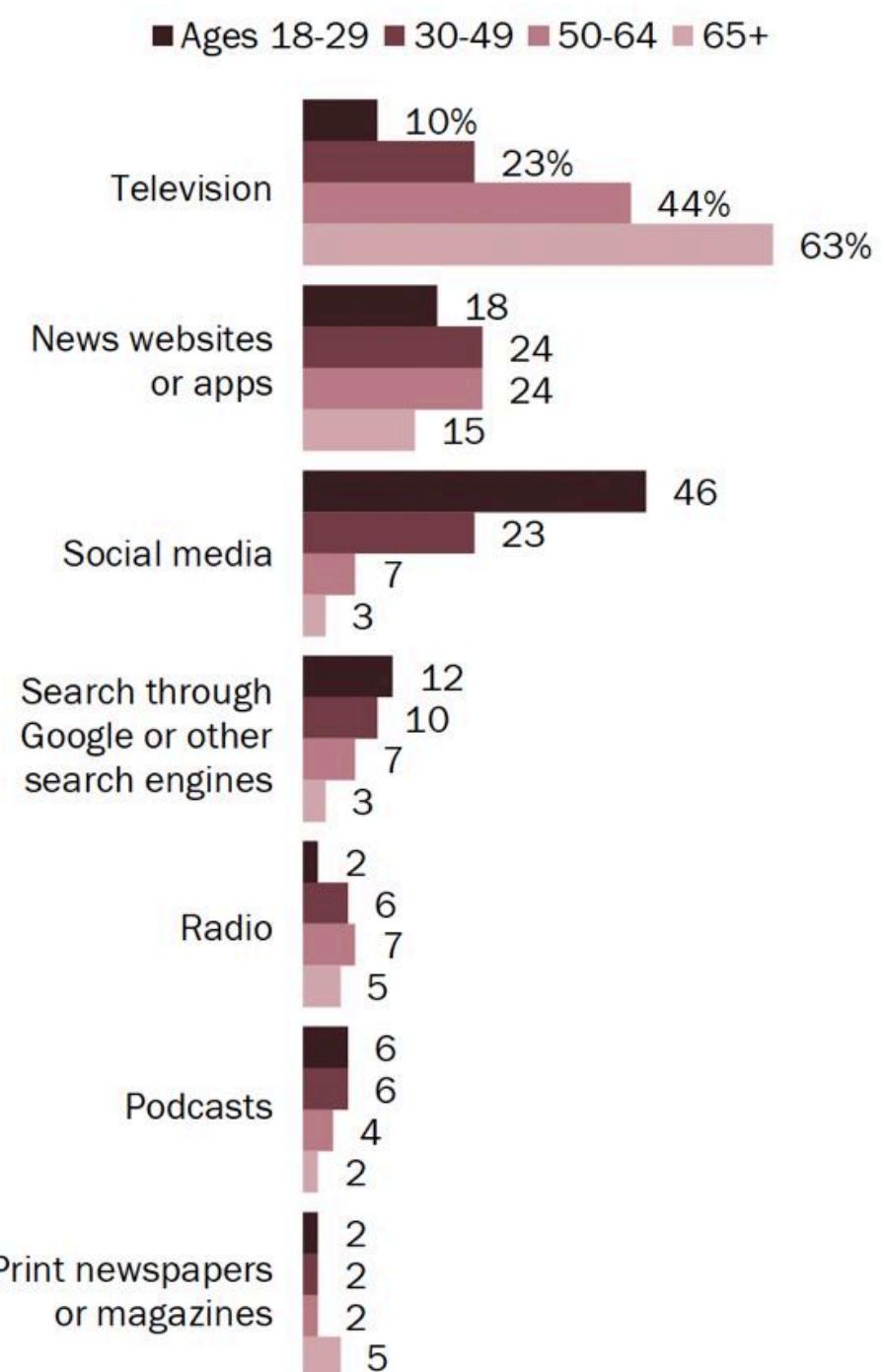


Figure 18. Prevalence of content manipulation types as a function of overall content manipulations. Percentages are computed as a proportion of (claim, image) pairs where a content manipulation has taken place. Plot created as in Fig. 11. Because windows containing fewer than 100 examples are not plotted, the left side of the plot is empty.

Lack of Liability on Social Media Platforms

% of U.S. adults who say ____ is the most common way they get political and election news, by age



Note: Respondents who did not give an answer or who said "Some other way" are not shown.

Source: Survey of U.S. adults conducted Sept. 16-22, 2024. "Americans' Views of 2024 Election News"

Absence of AI-Powered Solutions in the Industry

Industry Vertical Analysis

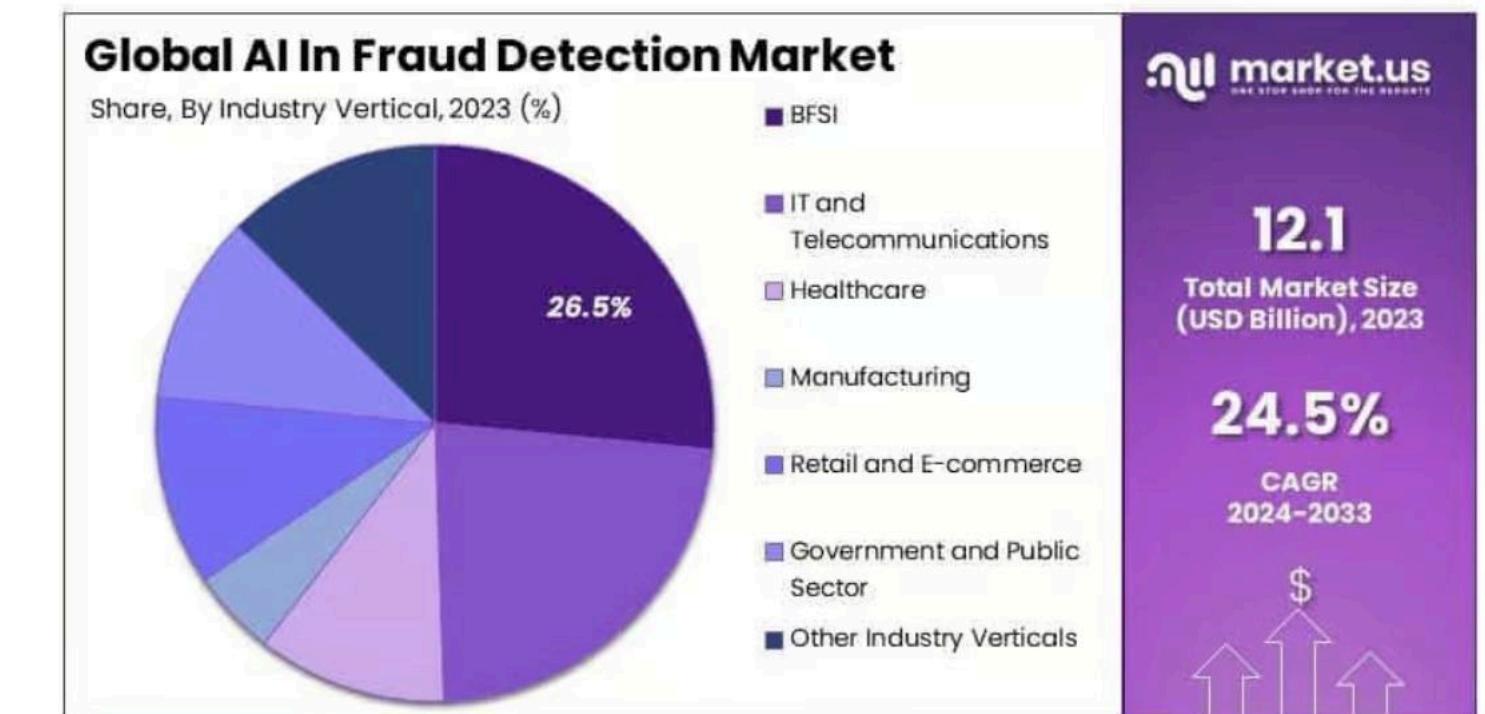
BFSI dominates with 26.5% due to its inherent vulnerability to various types of financial frauds.

In the Industry Vertical analysis of the AI in Fraud Detection market, the BFSI (Banking, Financial Services, and Insurance) sector stands out, occupying 26.5% of the market. This dominance is driven by the sector's inherent susceptibility to various types of fraud, including but not limited to payment fraud, identity theft, and insurance claims fraud.

The complex nature of transactions and the vast amounts of personal and financial data handled by these institutions necessitate robust AI-driven fraud detection systems.

Other industry verticals like IT and Telecommunications, Healthcare, Manufacturing, Retail and E-commerce, and the Government and Public Sector also integrate AI solutions to combat fraud, tailored to their specific operational risks and regulatory requirements.

The leading role of BFSI in this market segment underscores the critical need for continuous advancements in AI capabilities to keep pace with the evolving sophistication of fraud schemes. As AI technologies advance, their integration into the fraud detection strategies of BFSI and other sectors is expected to become more pronounced, playing a pivotal role in safeguarding assets and maintaining trust in financial systems globally.



Research Plan - Structure & Participants

Methodology		
1:1 interviews (~30 min.)		
Interview participants info		
ID	Demographics	Interviewer
R01	30s, Female, Korean, PhD student	Yeeun
R02	30s, Female, Korean, PhD student	KyuEun
R03	20s, Female, Korean, PhD student	KyuEun
R04	20s, Female, American, MS student	Nishma
R05	20s, Female, American, MS student	Nishma
Interview questions		
Question category	Questions	Probing questions (if needed)
Task-related questions	How would you describe your overall experiences using these tools? - Rate each tool on a scale of 1-5 - Ease of use (1=difficult, 5=easy) - Clarity of results (1=hard to understand, 5=clear results)	
	What do you think about the feedback/results provided by each tool? Were there any results that surprised you? If so, why?	
	What are the Features/Functions you liked, and why?	
	What are the difficulties or breakdowns you found while using these tools? What are the Features/Functions you would like to have, and why? (e.g. any missing features that you expected but didn't find)	
	Did you find yourself double-checking the tool's results elsewhere? How did you decide which articles/documents to fact-check? What factors influenced your decision when selecting images?	What would you typically do after checking the results?
Fact-checker tool related questions	What is the main reason that you would use a fact-checking tool? What would motivate you to use a tool like this regularly?	
	What kind of output/results would help you trust the tool's analysis? Would you prefer a mobile app, browser extension, or website for this tool? Why?	
General AIGC/Fake News related questions	Have you ever encountered fake news or manipulated images before? Can you describe the situation? How do you usually verify the credibility of online information?	How did you feel when you come across AI generated content?

Interview Questions Grouping

- Task-related
- Fact-checking tools
- General AI generated content and fake news experiences

Interview Structure

1. Contextual Inquiry: We provided prompts and observed the participants navigate 3 different AI detection and fact-checking tools (GPT Zero, Google Fact Check Tool, and Sight Engine).
2. Post-task questions: We then asked the participants questions from the 3 categories above.

Research Plan - Structure & Participants

Participant Number	Interviewer	Gender	Age	Nationality	Education
R01	Yeeun	Female	30s	Korean	PhD
R02	KyuEun	Female	30s	Korean	PhD
R03	KyuEun	Female	20s	Korean	PhD
R04	Nishma	Female	20s	American	MS
R05	Nishma	Female	20s	American	MS

Research Process

Observation & Interview Notes

Tool	R02 - KyuEun	R03 - KyuEun	R04 - Nishma	R05 - Nishma		
GPT Zero	<ul style="list-style-type: none"> - Instead of clicking "upload", dragged and dropped the file on the screen (> after dragging the file on the black bar, leaves the file link) - Asked if it is ok to copy the text and paste - Mentioned that "there's no alarm or pop up indicating this" - Mentioned that she clicks "advance scan" (moved on to the next tab) to check the reasons behind the results - Compares her background knowledge on AI and tries to make sense of how the tool detects AIGC (e.g., perhaps it detects based on the sentence structure) - but it only shows the AI vocabulary) 	<ul style="list-style-type: none"> - mistakenly dragged and dropped the pdf file on the black space - results does not show why the tool thinks some of the sentences is "high human probability impact" - compares her prior knowledge (grammar rules) to interpret the tool's results - thinks she can trust some of evaluations and claims from the article because the results cross-checked "a research company brought up 	<ul style="list-style-type: none"> - Sees user friendly and simple - Don't need account, which is a plus - Results are pretty quick and it makes sense that the document she uploaded is human, because AI is usually wordy and has weird sentences 	<ul style="list-style-type: none"> - Not sure how much to believe the results - Sometimes it says AI generated but it could real... you just have to trust it 		
Google Fact Check	<ul style="list-style-type: none"> - put the name of the city in I authentically - tries to search for the word - search for sources cited it to - tends to search phrases as sentence - as the tool does not come i keeps putting outside source - as the tool is not reliable - mentions that she cannot use tool is capable of <p>Task-related questions</p> <p>How would you describe your overall experiences using these tools?</p>	<ul style="list-style-type: none"> - R01 - Yusun <p>How would you describe your overall experiences using these tools?</p>	<ul style="list-style-type: none"> - R02 - KyuEun <p>GPTZero seems to detect contractions and passive voice in sentences that appear human-written, which helps make sense of its pattern recognition. The second tool did not seem to have the same level of detection to recognize "Beaver County" as a citation. The third tool, however, detected information accurately.</p>	<ul style="list-style-type: none"> - R03 - KyuEun <p>#1 While reading, I felt like it was a real article, and since GPTZero said it wasn't AI-generated, it seemed to align with my intuition. What I was curious about was which parts seemed AI-like. I went back and forth between the three results without explanation. However, I think it's useful for verifying whether something is real or fake by having multiple sources. The UI is very clean and UI makes me trust more (as the sources are provided and I can check the details).</p> <ul style="list-style-type: none"> - R04 - Nishma <p>Simple and straightforward (all 3). It was pretty interesting though not exactly sure it makes her questic true. Checking AI info tool is good to know miskmarked, since it but just written differ not be accurate.</p>	<ul style="list-style-type: none"> - R05 - Nishma <p>It was pretty interesting though not exactly sure it makes her questic true. Checking AI info tool is good to know miskmarked, since it but just written differ not be accurate.</p>	
Sight Engine	<ul style="list-style-type: none"> - she thinks that some photo knowledge (e.g. swifties do - while browsing results, she name of each model is - she wants to upload i where to go) 	<ul style="list-style-type: none"> - Rate each tool on a scale of 1-5 - Ease of use (1=easiest, 5=difficult) - Clarity of results (1=hard to understand, 5=clear results) 	<ul style="list-style-type: none"> - Ease of use: GPTZero 4, Google Fact Checker 1, Sightengine 2 - Clarity of results: GPTZero 4, Google Fact Checker 1, Sightengine 3 <p>What do you think about the feedback/results provided by each tool? Were there any results that surprised you? If so, why?</p>	<ul style="list-style-type: none"> - gtz zero - 4, 3 - First tool: 3 – The basis for determining AI-generated content was not always clear and required close examination. - google - 5, 3 - Second tool: 4 – It displayed key claims in a simple way, making it intuitive. - sightengine - 3, 2 - Third tool: 3 – Had issues with sign-up and lacked context in explaining why something seemed AI-generated, which was frustrating. <p>gtz zero - 5, 5</p> <ul style="list-style-type: none"> - The first tool was reliable because it provided sources that I could see with my own eyes. - There were a lot of acceptable and interpretable information, allows file uploads for claims. - google: 3, 2 - sight engine: 5, 5 <p>(gptzero) I found it fascinating that the tool detections, which align well with its intended purpose of identifying AI-generated content.</p> <p>(sightengine) It wasn't very useful except for the numerical information (e.g. how much the image is AI-generated).</p> <p>(gtz zero) The search source feature seems useful if I have to judge whether the source is legit or not.</p>	<ul style="list-style-type: none"> - gtz zero - 5, 5 - google: 4, 5 - sight engine: 5, 5 <p>Results were interesting, but not surprising.</p> <p>Not sure what the Q for. Thought you can tell you if it's fake or it's fake or not have relevant information, but the Sight Engine toc standard (like check</p>	<ul style="list-style-type: none"> - gtz zero - 5, 5 - google: 4, 3 - sight engine: 5, 5 <p>In site engine, the as shows what it's from used to make the in trustworthy.</p>

Interpretation Session

- Collected key data points during the interpretation session and extracted insights
- Categorized insights into Perception, Input, and Results stage, with themes for each (e.g., technical vocabulary for lay users, lack of sources, insufficient reasoning)

Research Process

Thematic Analysis assisted by ChatGPT

Insight Extraction

Participant #	Product Name	Categories-Interview Questions	Interview Questions	Data Observations, Quotes	User Insights Pain points, Breakdowns, Benchmark, User behaviors	Design Ideas How might we, Features, Functionalities
4 GPT Zero	Task related			<ul style="list-style-type: none"> "It doesn't require an account, which is a plus" Interface is simple and basic (user friendly) 	<ul style="list-style-type: none"> Not 100% trusting of the results 	<ul style="list-style-type: none"> Build trust with the user Protect privacy of government clients' information, without impacting the experience for general users
4 Google Fact Checker	Task related	Fact-checker related		<ul style="list-style-type: none"> Unsure about what the use case is and what the results would be "It would be more effective if you could put longer text or a link" 	<ul style="list-style-type: none"> It takes effort to figure out which key words to input Results are limited and don't have much explanation 	<ul style="list-style-type: none"> Provide reasoning and break down the results, such as percentages, highlights, etc.
4 Sight Engine	General			<ul style="list-style-type: none"> Not confident in what types of files are acceptable to upload 	<ul style="list-style-type: none"> Results are a bit confusing to comprehend 	<ul style="list-style-type: none"> Primary sources should be provided (all types of media)
5 GPT Zero	Task related			<ul style="list-style-type: none"> "Sometimes when it says it is AI generated, it could be human-written. So it's hard to fully trust the results" 	<ul style="list-style-type: none"> Quick results, but not 100% trustworthy 	<ul style="list-style-type: none"> Link specific parts of the text with the sources
5 Google Fact Checker	Task related	General		<ul style="list-style-type: none"> "The interface feels off; knock-off Google design" Couldn't understand what this would be used for 	<ul style="list-style-type: none"> Limited input (only up to 3 words) Only 2 results given, and not sure what to do with those results 	<ul style="list-style-type: none"> Incorporate community, where you can participate in or view conversations on topics to aid in verifying (basically, get more perspectives)
	Google Fact Checker	Task 2				<ul style="list-style-type: none"> Relies on factual data like 'someone did what, said what' for fact-checking.
	Sight Engine	Task 3				<ul style="list-style-type: none"> Users rely on s evaluation-rat technical AI de metrics:

Consolidated User Research Data + Thematic Grouping by Chat-GPT

Thematic Grouping	Observation	Insights	Design Ideas
Expectations for Feature Improvements	Users question AI-generated judgments and need clear reasoning.	Without explanations, users struggle to trust AI-generated content and rely on personal biases.	Provide AI-detection reasoning flagged content to enhance trust.
Expectations for Feature Improvements	Users struggle with understanding tool functionalities without onboarding.	Users often don't know how to use the tool at first or what it's meant to do.	Implement a guided onboarding explaining the tool's functions.
Expectations for Feature Improvements	Users rely on prior knowledge to interpret AI-generated content.	Without a clear explanation, users use their own mental models to make sense of results.	Provide explanations along with content to clarify why certain AI-generated results are valid.
Expectations for Feature Improvements	Users manually check multiple sources when a tool doesn't provide enough context.	Users cross-check information to verify credibility when AI outputs are unclear.	Incorporate credibility score validation to reduce user verification.
Expectations for Feature Improvements	Auto-suggested search queries would help users input better terms.	Users struggle to determine the best search terms when using fact-checking tools.	Implement an auto-suggestion feature that recommends optimized search input.

Journey Map assisted by Claude.ai

Journey Mapping

Stages	Discovery & Access	Input	Results
User Actions	<ul style="list-style-type: none"> Encounter information online Question content authenticity Search for verification tools 	<ul style="list-style-type: none"> Select content to verify Attempt to input content Explore different input methods 	<ul style="list-style-type: none"> Review analysis results Try to understand findings Look for additional information
Thoughts/Feelings	<ul style="list-style-type: none"> "Is this information real or AI-generated?" "How can I verify this?" "Not sure if my content format is supported" "Which tool is trustworthy?" 	<ul style="list-style-type: none"> "How do I upload this?" "Not sure if my content format is supported" "Copy-pasting might be easier" 	<ul style="list-style-type: none"> "What does this result mean?" "Hard to understand why this conclusion is drawn" "Need more detailed explanation"
Pain Points (Summary)	<ul style="list-style-type: none"> Unclear purpose and functionality Unintuitive interface design Lack of onboarding/guidance No batch processing capability Slow processing times 	<ul style="list-style-type: none"> Lack of feedback during file upload Limited input options Unclear file type support Poor visual distinction between elements Missing explanations for AI detection Unclear rating systems 	<ul style="list-style-type: none"> Technical jargon hindering comprehension Lack of context for results Hard to understand why this conclusion is drawn Need more detailed explanation
Opportunities (Summary)	<ul style="list-style-type: none"> Create clear purpose statements and intuitive onboarding Design trustworthy, professional interface Provide tool scope definition upfront 	<ul style="list-style-type: none"> Support multiple input methods (drag-drop, copy-paste, URL) Provide clear visual feedback on input actions 	<ul style="list-style-type: none"> Use color coding and visual indicators Provide plain language explanations Include tooltips for technical terms

Findings - Thematic Analysis 1

User Insights

Expectations for Feature Improvements

- Without explanations, users struggle to trust AI-generated content and rely on personal biases.
- Users often don't know how to use the tool at first or what it's meant to do.
- Without a clear explanation, users use their own mental models to make sense of results.
- Users cross-check information to verify credibility when AI outputs are unclear.

Fact-Checking & Verification Behavior

- Fast, accurate source validation builds user confidence in the tool's credibility.
- Users expect fact-checking tools to highlight concrete events rather than general statements.
- Users prefer an integrated fact-checking experience rather than inputting text manually each time.

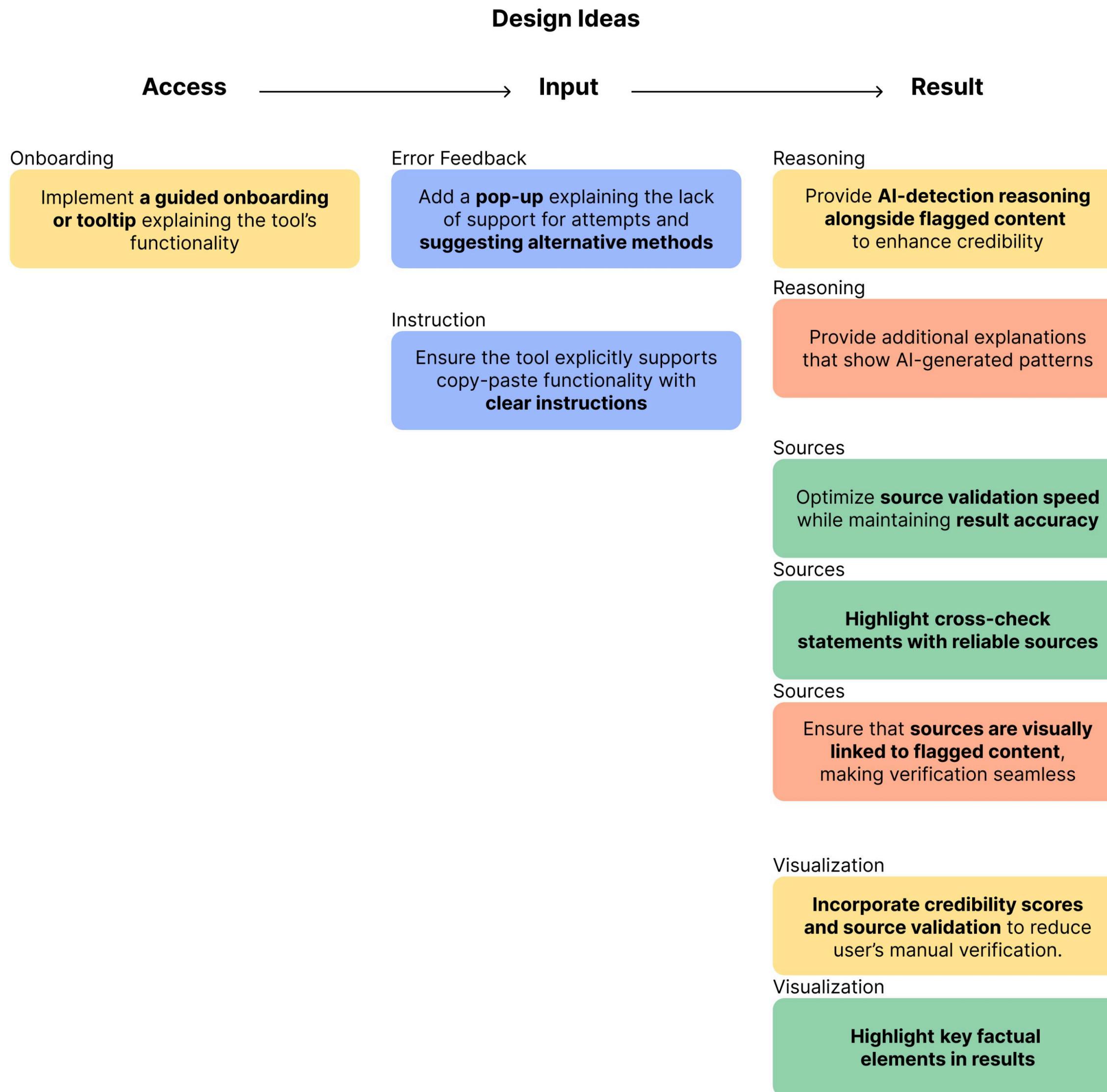
Trust & Transparency in AI Detection

- A clear, structured interface reinforces trust in the tool's results.
- Users want to see concrete AI-generated patterns (e.g., frequently used words by AI).

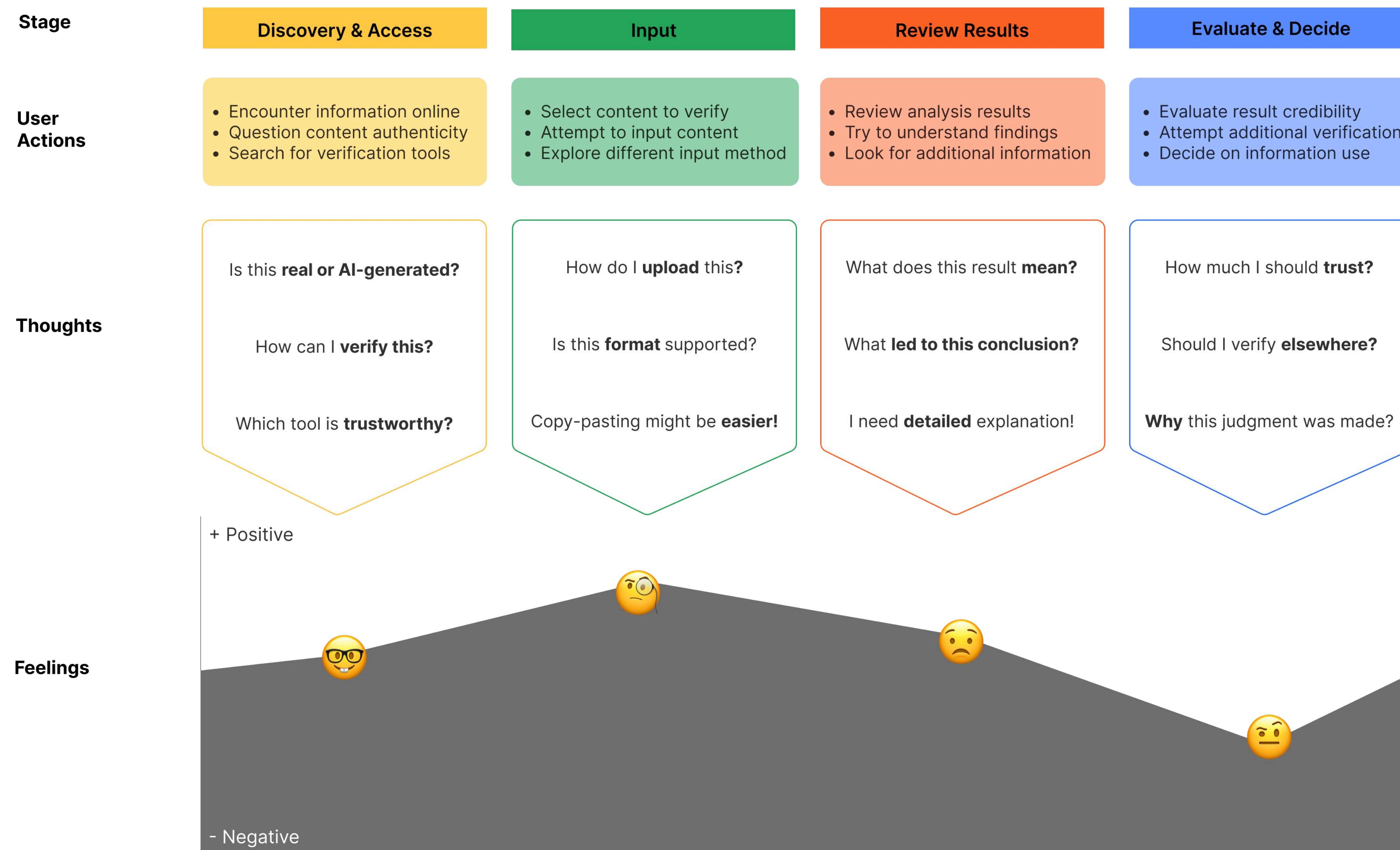
Usability & Interaction Barriers

- Users expect drag & drop functionality even when it's not supported.
- Input methods (e.g., copy-paste vs. upload) affect ease of use.

Findings - Thematic Analysis 2



Findings - Journey Map 1



Findings - Journey Map 2

Discovery & Access → Input → Review Results → Evaluate & Decide

Pain Points

Unintuitive home interface	No feedback after file upload	Technical jargon	Not confident in tool accuracy
Lack of onboarding guidance	Limited Input Options	Lack of context for results	AI-generated fake sources
	Limited Input Options	Unclear file type instructions	Cross-reference verification
	Unclear file type instructions	Poor visual distinction	
		Lack of sufficient reasoning	
		Unclear rating system	

Opportunities

Clear purpose statements	Multiple input methods	Color coding & visual indicators	Confidence scores with reasons
Intuitive onboarding	Visual feedback on input actions	Plain language and explanations	Consolidated source vieweing
Professional interface	Display supported file types	Tooltips for technical terms	Cross-verification
Tool scope definition		Highlight detected elements	Direct links to primary sources
		Clear rating visualization	

Thank You