

www

Human Computer Interaction

TERM LONG ASSIGNMENT

FINAL REPORT
& PRESENTATION





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Course: Human Computer Interaction (UN1) Monday 8 AM Tutorial with Ms. Nadine Maitland

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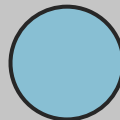


Why This Project?

- Users often forget video titles, creators, or exact keywords
- Current Watch History search relies heavily on recall, not recognition
- Most users remember scenes, topics, thumbnails, creators' faces
- Existing tool don't match how users actually remember content



Project Objectives 01





- Help users rediscover previously watched YouTube videos more easily
- Support natural language searching (not just keywords)
- Reduce scrolling, frustration, and time spent searching
- Combine visual previews, contextual AI search, and intelligent filtering
- Improve accuracy and relevance of Watch History results

Overview of Our Design Process **02**





Mixed-methods data gathering

- Semi-structured interviews
- Online survey
- Secondary data/document review



**Thematic coding +
quantitative validation**



**Triangulated
insights → user
requirements**



**Requirements →
design goals →
3 concept tasks →
prototype**



Key Data Insights

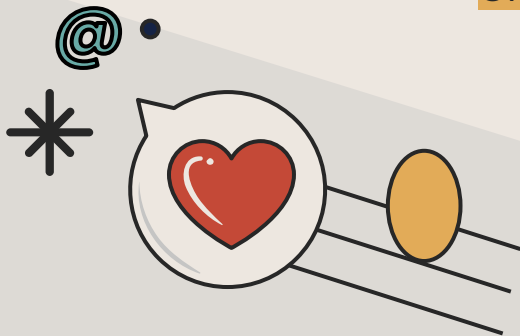
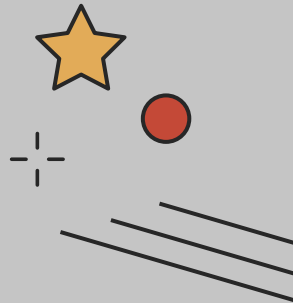
Strong reliance on visual
memory (thumbnails,
scenes)

High frustration with
scrolling and poor keyword
matches

Only 15% rely on the History
page to find old videos

72% remember topics, 66%
remember thumbnails

88% showed strong interest
in natural language search



Design Goals



Support natural,
human-like recall

Prioritize visual
previews (recognition >
recall)

Provide contextual
follow-up questions



Enable
multi-dimensional
filtering

Increase search
accuracy and reduce
search time

Reduce frustration and
scrolling



Core User Requirements



These directly shaped our 3
main design tasks.

Task 1 (Iyana): Visual Preview & Recall

- Large thumbnail grid
- Quick 3–5 second looping previews
- Highlighted scenes
- Goal: Help users recognize the right video fast
- Supports visual memory, reduces reliance on titles



Task 2

(Benjamin):

Contextual AI Search

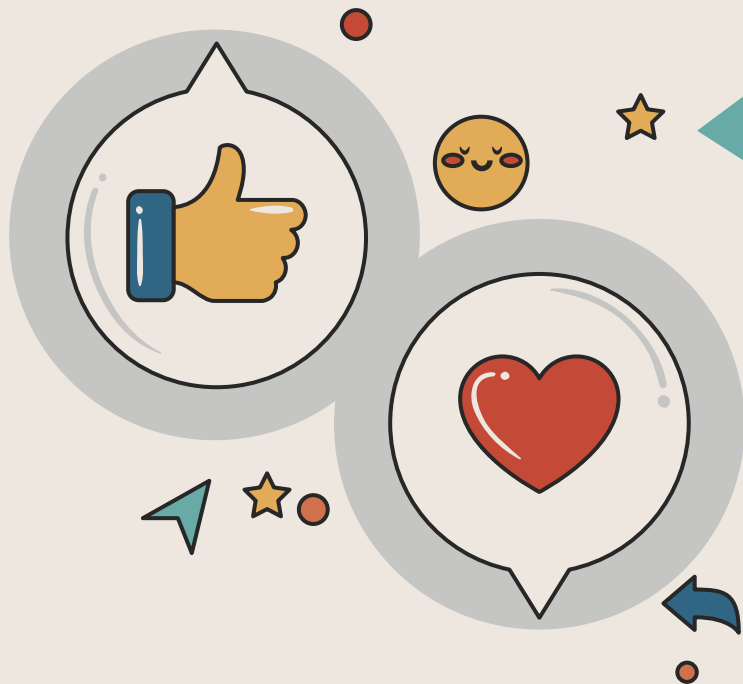
- Users type natural language (“that fridge repair video...”)
- AI understands vague descriptions
- System asks smart follow-up questions
- Maintains context across queries
- Produces timestamped segments and refined results



Task 3 (Errol): Smart AI Filtering

- Filters by topic, creator, video length, timeframe, etc.
- Automatically recommends filters based on query
- Reduces long scrolling through watch history
- Helps users refine results quickly and intuitively



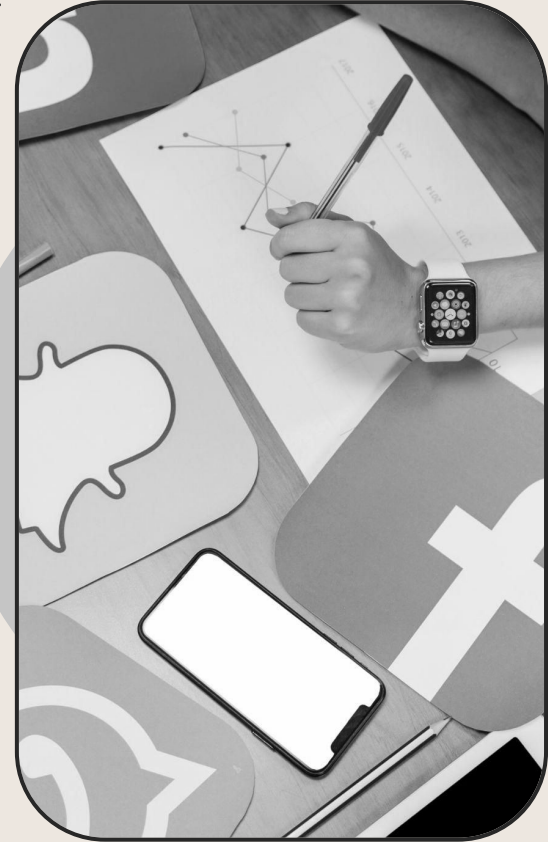


- Large thumbnail grid with modern card-style UI
- Clear preview/description/play icons
- Natural language search bar at top
- Filter chips that adapt dynamically
- Light/dark adaptive interface
- Micro-animations for clarity and responsiveness

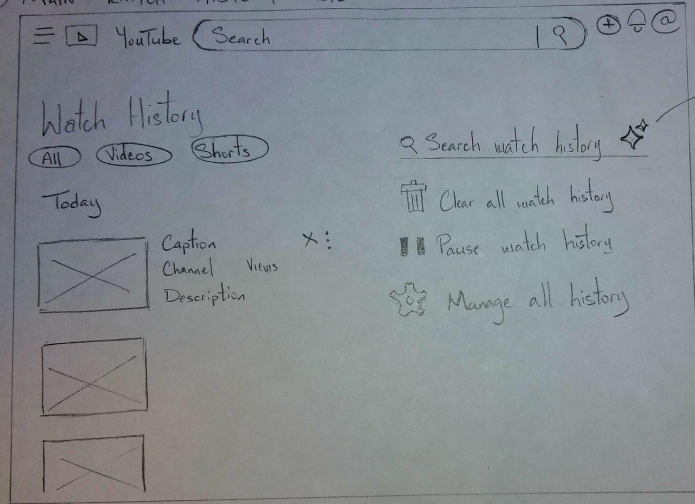
Concrete Design Overview

Sketches of Our Chosen Design

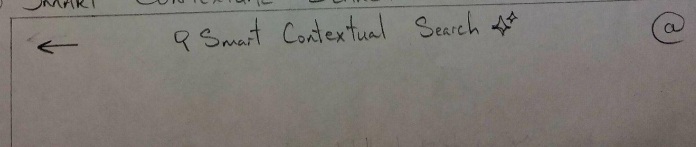
View the images below of the sketches that translated to our initial prototype or access the [Clickable Prototype](#):



① MAIN WATCH HISTORY PAGE



② SMART CONTEXTUAL SEARCH



② SMART CONTEXTUAL SEARCH

← q Smart Contextual Search ✨

@

Seek and ye shall find

All Videos +

What are you looking for?

q ✨

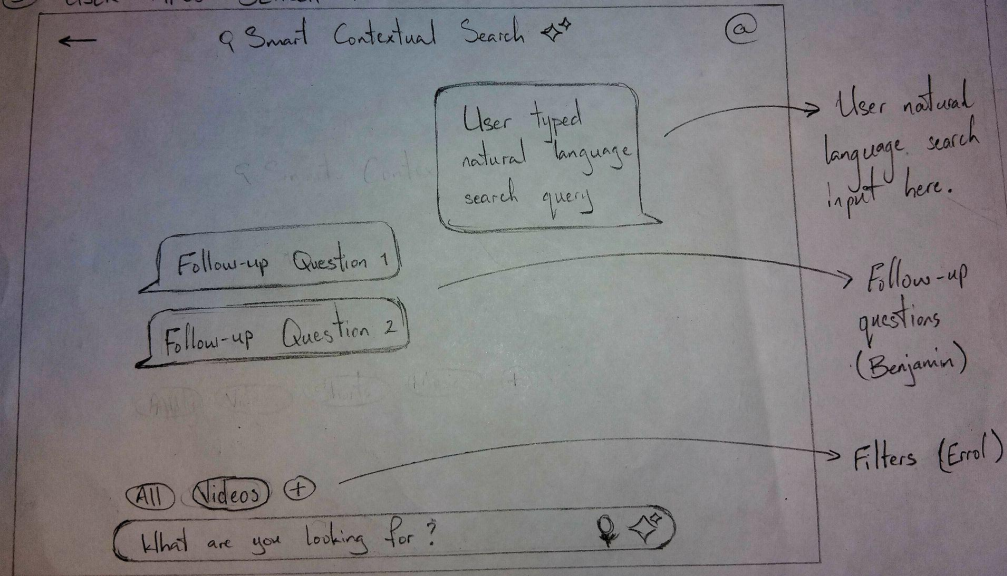
User types
Natural language
input here.

③ USER TYPES SEARCH INPUT

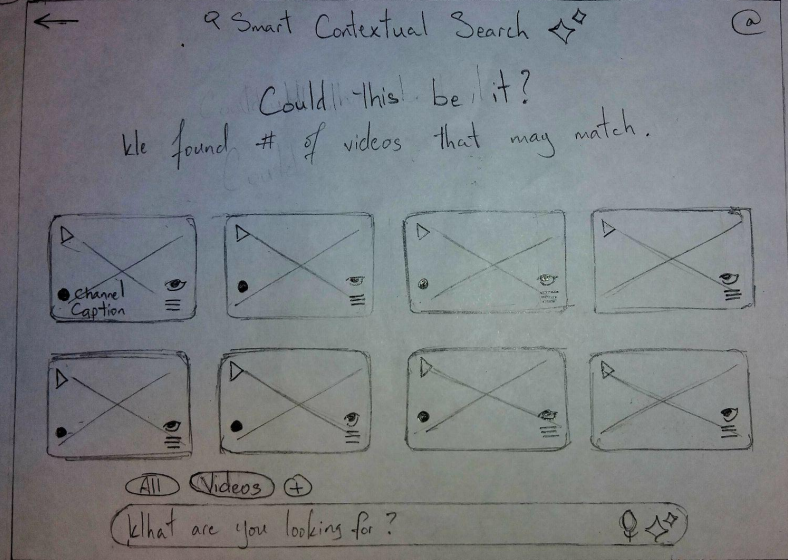
← q Smart Contextual Search ✨

@

③ USER TYPES SEARCH INPUT



④ VISUAL PREVIEW WITH VIDEO THUMBNAIL



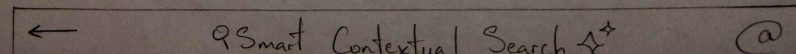
Icons on thumb-
nail:

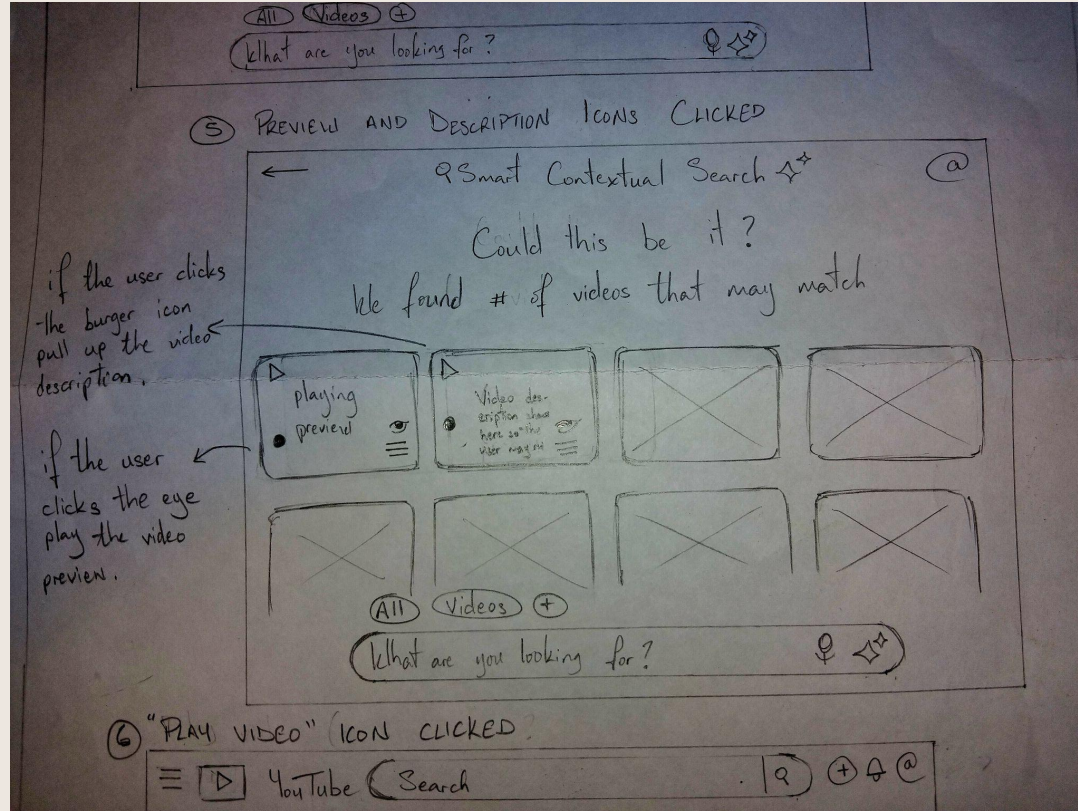
▷ : play full video

👁 : play video preview

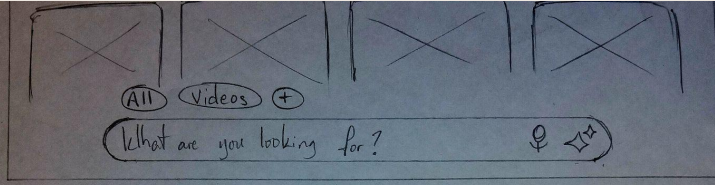
≡ : view video
description

⑤ PREVIEW AND DESCRIPTION ICONS CLICKED

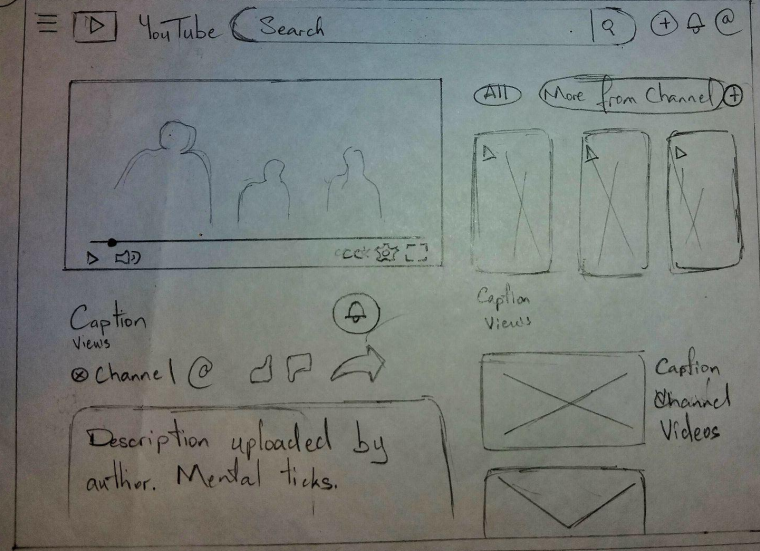




clicks the play the video preview.



⑥ "PLAY VIDEO" ICON CLICKED

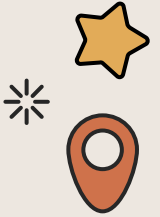


→ if the user clicks the triangle pull up the video playing interface in full

Results of Our Heuristic Evaluation 03



Heuristic Evaluation: Key Issues Identified



**Ambiguous
filtering chips
(unclear
purpose)**

**Side menu
clutter on main
page**

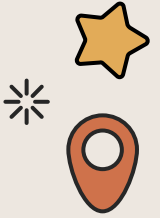
**Follow-up
questions
lacked
interaction
clarity**

**Tone mismatch
("Seek and ye
shall find")**

**No usability
issues with
preview,
description, or
play icons**



Heuristic Evaluation: Solutions Implemented



**Added clarifying
text to filter
chips**

**Removed
unnecessary
right-hand menu
items**

**Updated
follow-up
question flow
with clear
instructions**

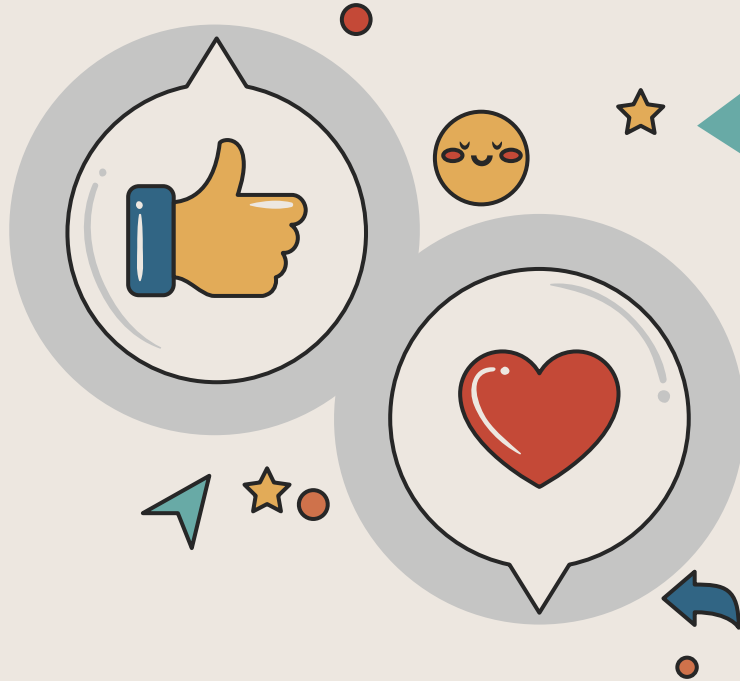
**Reworded
unclear
instructional
text**

**Maintained
consistency in
UI language and
tone**



The Final Prototype 04



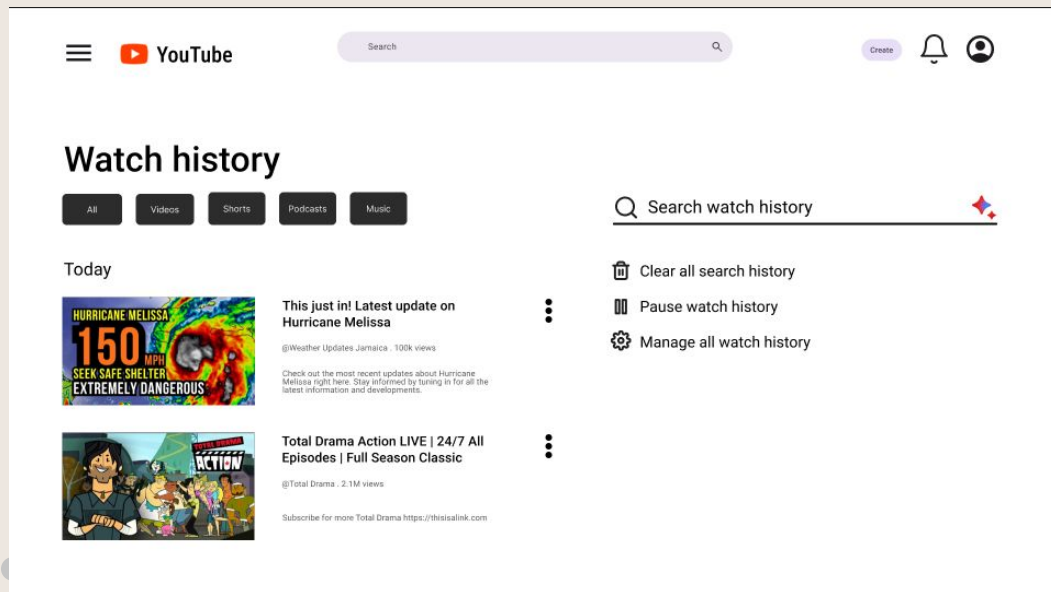


- AI-powered natural language search
- Smart follow-up questions
- Visual-first result layout
- AI-driven auto-suggested filters
- Cleaner, simpler Watch History interface
- Supports recognition, recall, and refinement at once

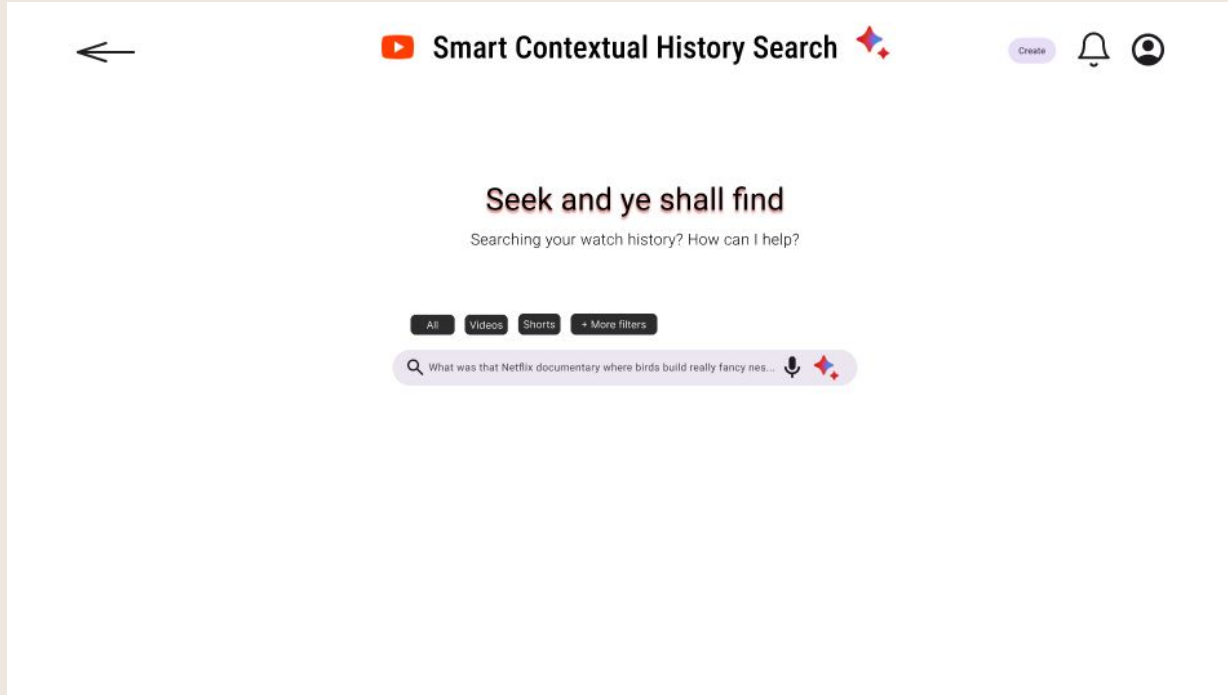
After receiving feedback from the peer review, updates were made to the initial prototype. See the comparative images below or go to the [Updated Clickable Prototype](#):

Summary

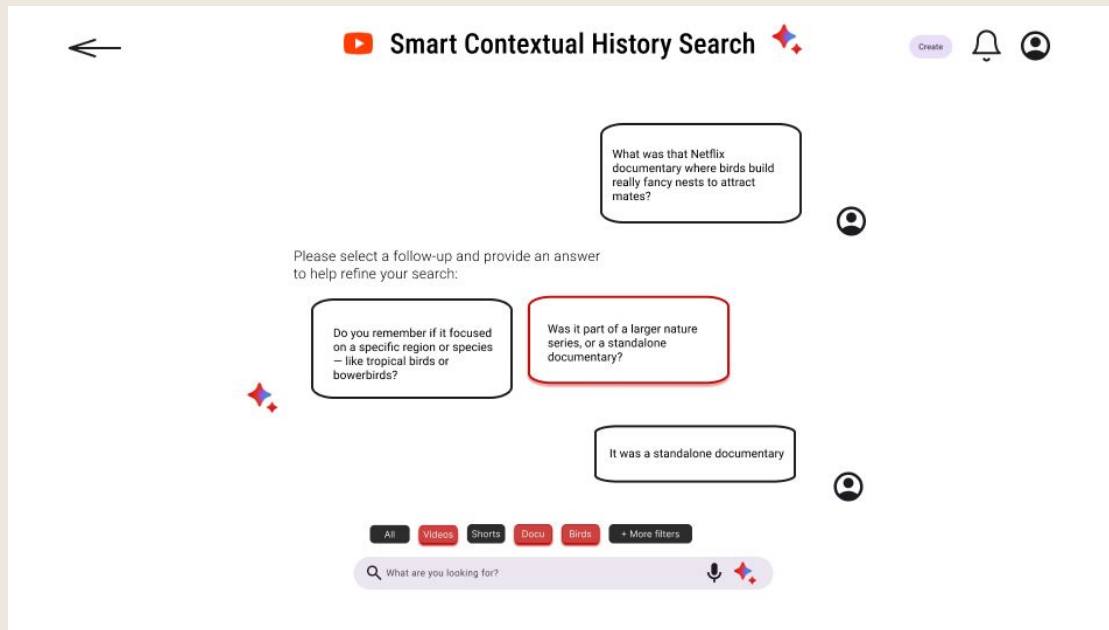
1. MAIN WATCH HISTORY PAGE



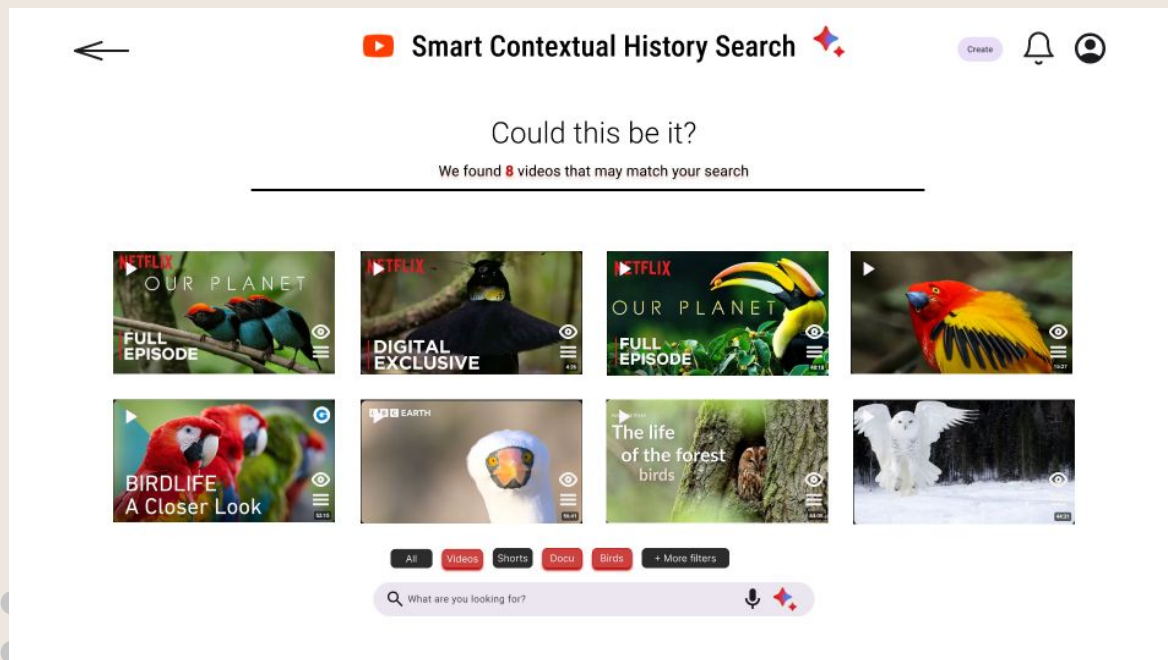
2. SMART CONTEXTUAL HISTORY SEARCH



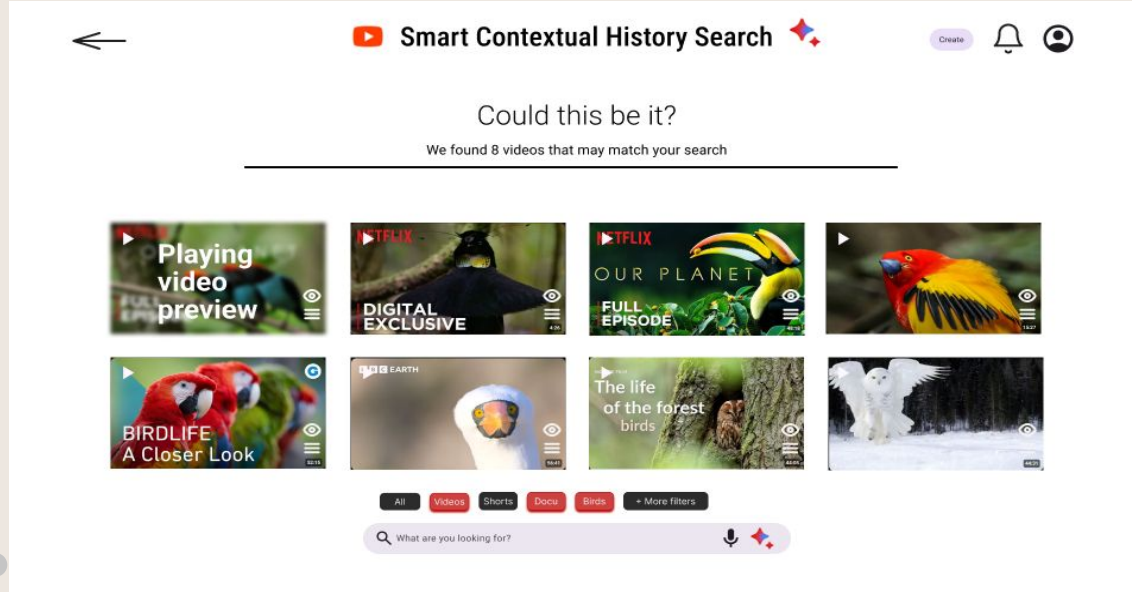
3. USER TYPES SEARCH INPUT



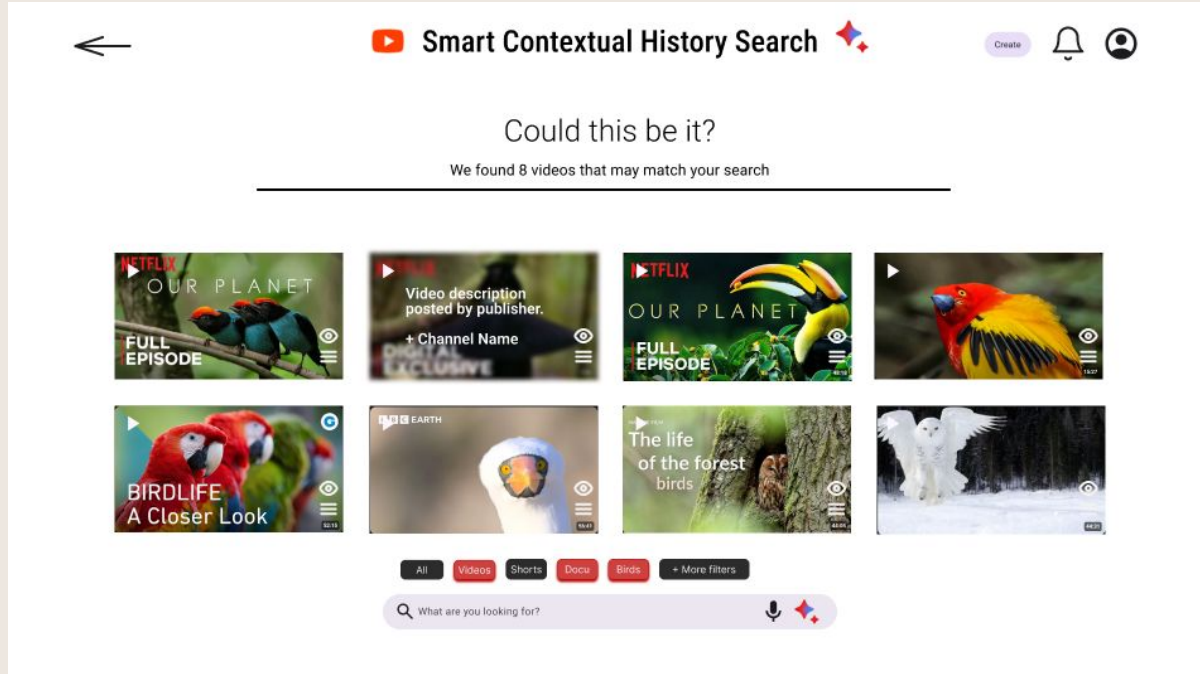
4. VISUAL PREVIEW WITH VIDEO THUMBNAIL




5a. PREVIEW ICON CLICKED





5b. DESCRIPTION ICON CLICKED



6. PLAY ICON CLICKED











NETFLIX
OUR PLANET
FULL EPISODE


 [Climate change](#) 


United Nations • Climate change refers to long-term shifts in temperatures and weather patterns. Human activities have been the main driver of climate change, primarily due to the burning of fossil fuels like coal, oil and gas.













Our Planet | One Planet | FULL EPISODE | Netflix

 **Netflix**  31.9M subscribers [Subscribe](#)  219K   Share  Download  Clip 

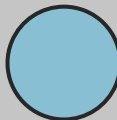
35M views 5 years ago
Experience our planet's natural beauty and examine how climate change impacts all living creatures in this ambitious documentary of spectacular scope.
[...more](#)

6,996 Comments  Sort by

All From Netflix Planet Earth Life on Our Planet 

-  **Our Planet | Jungles | FULL EPISODE | Netflix**
Netflix  26M views • 5 years ago
-  **Our Planet | High Seas | FULL EPISODE | Netflix**
Netflix  39M views • 5 years ago
-  **Giraffes, Zebras, and Lions | Savanna Safari Adventure | Wildlife**
Scholastic Kids 204K views • 1 month ago
-  **The life of the forest. Natural abundance**
Forest Film Studio 779K views • 2 years ago
-  **Octopus Social Life (Full Episode) | Secrets of the Deep**
National Geographic  1.4M views • 6 months ago
-  **Journey Through The Seven Continents Of Our World | 4K ...**
BBC Earth  4.5M views • 2 years ago
-  **Our Planet | Frozen Worlds | FULL EPISODE | Netflix**
Netflix 

Conclusions 05

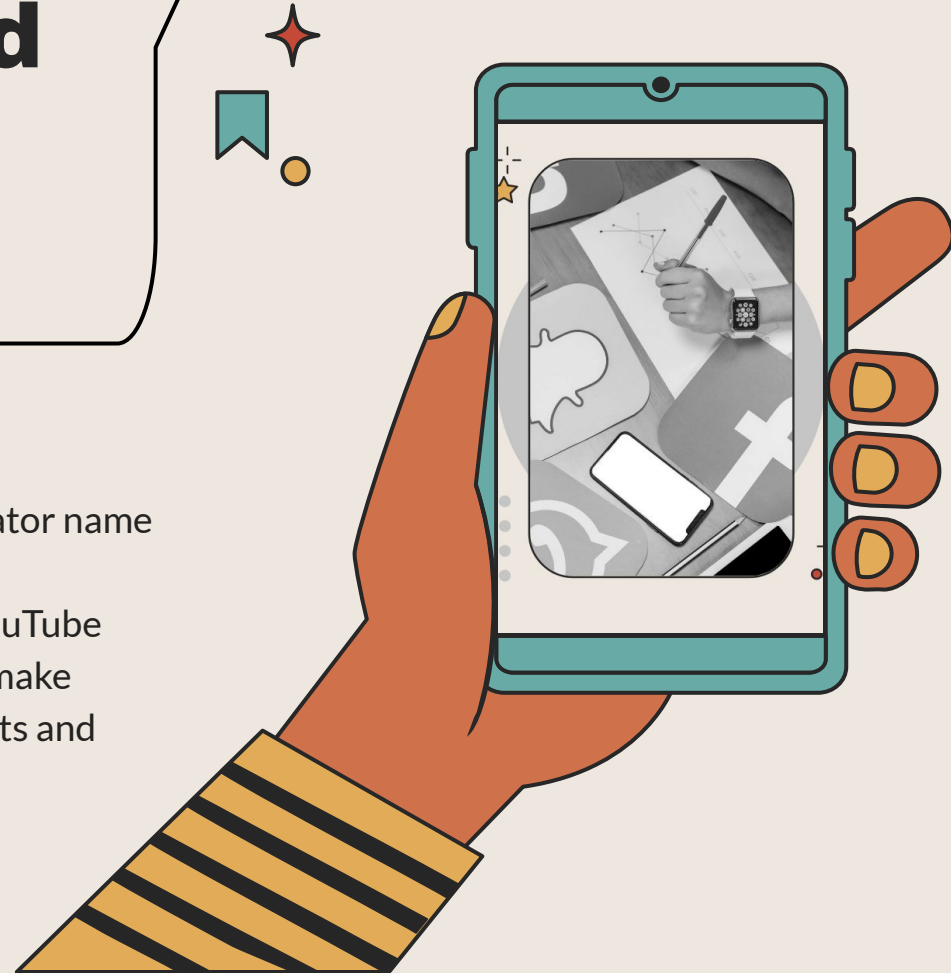


- The redesigned history search better matches how users remember videos
- Visual recognition, contextual AI, and smart filters work together
- Users save time, feel less frustrated, and get more accurate results
- Strong alignment between user needs → design goals → prototype



What We Would Improve with More Time

- Add fully interactive previews with hover-to-preview
- Allow users to sort results by date, creator name etc.
- Conduct prototype testing with real YouTube users to gain their feedback as well to make further adjustments to the requirements and subsequently, our final prototype.



06| References

Deghani, M., Niaki, M. K., Ramezani, I., & Sali, R. (2015). Evaluating the influence of YouTube advertising for attraction of. *Computers in Human Behavior*, 1.

Ebardo, R., De La Cuesta, J., Catedrilla, J., & Wibowo, S. (2020). Peer influence, risk propensity and fear of missing out in sharing misinformation on social media during COVID-19 pandemic. In *Proceedings of the 28th International Conference on Computers in Education* (pp. 351–359). Asia-Pacific Society for Computers in Education.

THANKS!

Do you have any
questions for us?



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