

# REPORT



# YouTube Coach

**A search engine + video compiler  
for tailored tutorials**

Watch the concept video here:  
<https://youtu.be/VtpMvthD0-I>

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# SCOPE

## 1.1 Executive Summary

YouTube Coach is an **online tutorial compiler for YouTube** that, based on the query, searches through all available videos, takes snippets from some of the most helpful ones and combines those snippets to provide an instructional compilation. The snippets are relevant steps belonging to different videos.

## 1.2 Problem Statement

There are potentially billions of instructional how to videos on the internet, with a majority of them being on YouTube. The problem is that these videos are in 'the wild' and not structured, wasting the opportunity of YouTube being an excellent instructional platform too. Additionally, there are many instances when a certain step followed in one YouTube video is better than the same step from some other video, but the subsequent steps might be better somewhere else.

The goal is to introduce **a system that can extract the most relevant steps from instructional videos on YouTube** categorized based on a certain topic, and compile these steps to get a final instructional sequence for that topic.

## 1.3 Product vision/Outcome

A **search engine + video compiler** that, based on a search query for a particular instructional 'how-to', **provides a compilation with steps from different videos available on YouTube**, based on relevance and quality. Continuous improvement of algorithm recommendations is done based on active and passive user feedback.

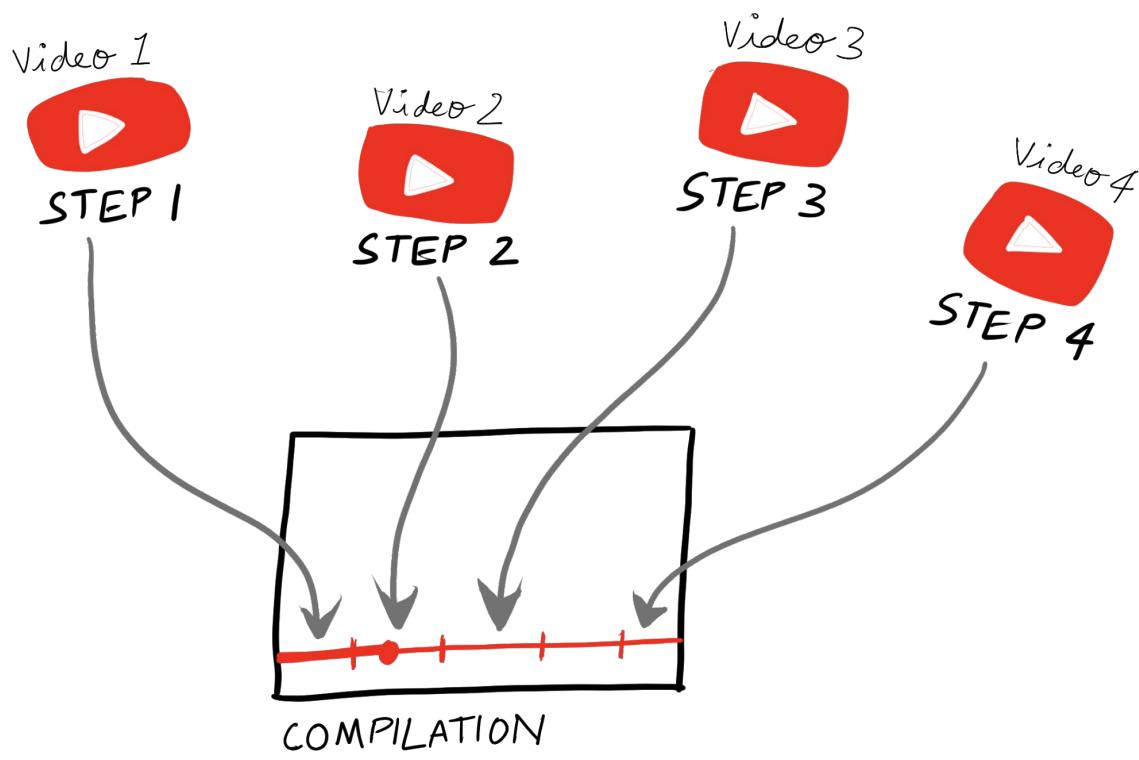


## 1.4 Solution Description

We propose a website that acts under the service of YouTube, called YouTube Coach, oriented towards **providing the user with procedural instructional videos** (Eg. like YouTube Kids, functioning as an independent version of YouTube). YouTube Coach, after going through millions of videos available on YouTube for that query, provides a final high quality **compilation divided into steps**. These steps are procured from different videos, based on their individual relevance and quality.

## 1.5 Constraints, Assumptions and Limitations

- Being a YouTube subset, the product **only works with YouTube videos**.
- Videos should be **either in English or totally silent**. For the scope of this project, we are not processing regional languages currently as a limitation, as that would require extensive filtering to be able to avoid multi-language compilations.



# 2 VIDEO TUTORIALS- INSTRUCTIONAL DESIGN FUNDAMENTALS

## 2.1 How do people learn using videos?

The trend of learning from videos has grown tremendously over the past few decades. Video training is the preferred method especially for **Microlearning** (receiving information in small, highly focused chunks).

- Video is one of the best ways to share knowledge
  - People are **75% more likely to watch a video** than to read written documents or web articles. (Forrester Research)
  - When both text and video are available to consumers on the same page, **72% of them would preferably watch a video to learn** about a product or service. (Wyzowl Benchmark Report, 2019)
- Videos boost viewer learning by **providing relatable narratives in a visual format**
- Microlearning can use videos to provide the viewer '**just-in-time' learning, that can be part of a bigger learning path.**
- Knowledge derived from microlearning can **help the viewer exactly in the moment of need**
- **Knowledge when provided in small bits has a better chance of retention** by the viewer (Teaching in small portions dispersed over time enhances long-term knowledge retention, 2010), which is exactly what microlearning provides.
- Microlearning videos **can be watched on the go**, consuming bits of knowledge when needed.



## 2.2 What makes YouTube a great learning tool?

- **Allows for effective microlearning-** YouTube videos, due to their nature of being relatively short and precise, ensure an effective microlearning environment.
- **Easy to learn on the go-** Multi platform support, especially the ability to be able to play videos on mobile and consume information.
- **Generates and promotes online discussions-** Learning is hampered in an isolated environment, and YouTube ensures just the opposite, providing a social and discursive space in the form of comments.
- **Allows viewers to be creators as well-** Giving everyone an equal opportunity of contribution ensures the formation of strong online learning communities on YouTube.



## 2.3 What makes a 'how-to' video good?

### 2.3.1 Classification of Knowledge

Knowledge is divided into-

- **Declarative**- Factual Knowledge
- **Procedural**- developing skills to do something
- **Causal**- Knowledge of laws and principles
- **Conditional**- Knowing when to use declarative or procedural knowledge
- **Relational**- Knowledge central to basic human reasoning, analogy and planning

On this platform, we are focusing on videos that provide **procedural knowledge** (like tutorials and instructional 'how-to').



### 2.3.2 What constitutes 'procedural knowledge'?

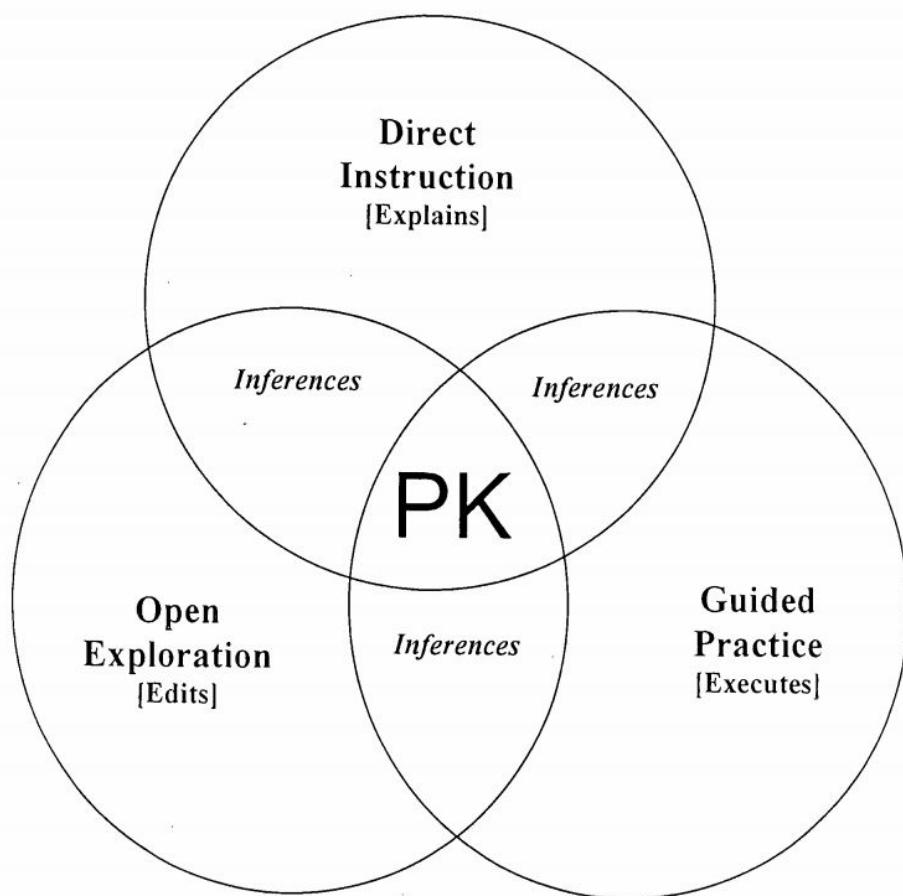
A procedural knowledge component skill has seven content elements:

- An object or **situation to be modified** by the procedure (the task)
- The **name** of the procedure
- A **list of the steps** or activities for executing the procedure
- The sequence for **execution of those steps**
- A **demonstration of the task** illustrating the individual activities or steps required
- The **consequence** of each step and the whole procedure



**Demonstration for procedural knowledge:** For procedural knowledge component skills, it is best to demonstrate (Merrill, 1983)-

- A **specific instance** of the task .
- The **execution of each step** should be demonstrated and the **consequence** of executing each step shown.
- The defining and **ordering properties of each step** should be described.
- Guidance directing learners' attention to the **name of the step** being executed
- The **action** that is taking place, and the **consequence** of the action.



**Figure 1: Procedural Knowledge Teaching Model (Farenga and Joyce, 1996)**

*The PKTM was constructed based on research in cognitive science to help students understand how they think, remember, and learn.*



### **2.3.3 How to Effectively Teach Procedural Knowledge?**

Procedural knowledge can be well taught by:-

- Using **descriptions of the sequence of actions** and decisions necessary for achieving goals.
- Providing the opportunity to the learners to **construct on their prior knowledge**.
- Providing a **conceptual elaboration of the declarative knowledge base** in the form of concepts, processes, and principles that explain why the procedure works.
- **Complex procedures should be chunked into segments** of seven to nine new steps, to avoid cognitive overload.
- Following some steps with a “whole task” practice where procedural chunks are gradually assembled into larger “wholes” to **show the bigger picture**. This feedback should be used to **close the gap between current and required performance**.

### **2.3.4 Learning Outcomes of Procedural Knowledge**

The learner should be able to:-

- Recognize and identify key steps.
- Apply the correct series of steps .
- Evaluate the consequence for the whole procedure of making changes to a given step.

### **2.3.5 Some Qualities of a Good Instructional Video**

- Has a well-structured title
- Has well-defined steps in sequence.
- Provide possible alternatives to make the steps more relatable to the masses.

- Has a clear video and audio.
- The vocals should semantically match to the subsequent part of the video.
- Instructions should be delivered at a comfortable pace
- Steps manually written down in the video description
- If an instructor is in the video watchers tend to learn more effectively than the videos which don't have an instructor.
- Previous works suggest that users learn effectively from youtube and other instructional videos when videos are divided into multiple substeps(procedural instructions).

## **2.4 Product Positioning- Nature of procedural knowledge**

### **targeted by YouTube Coach**

YouTube Coach **targets procedural videos on YouTube** that provide tutorials to the viewer to **accomplish a certain task or reach a certain goal by following a set of clearly defined steps**. In other words, the videos should teach the user how to do something with a set of given ingredients/materials by following a sequence of steps one after the other.

The tutorials can be for relatively simple and small tasks like-

- How to change a bike tire?
- How to make a strawberry milkshake?
- How to delete Instagram account

Or they can be for something a bit more complex such as-

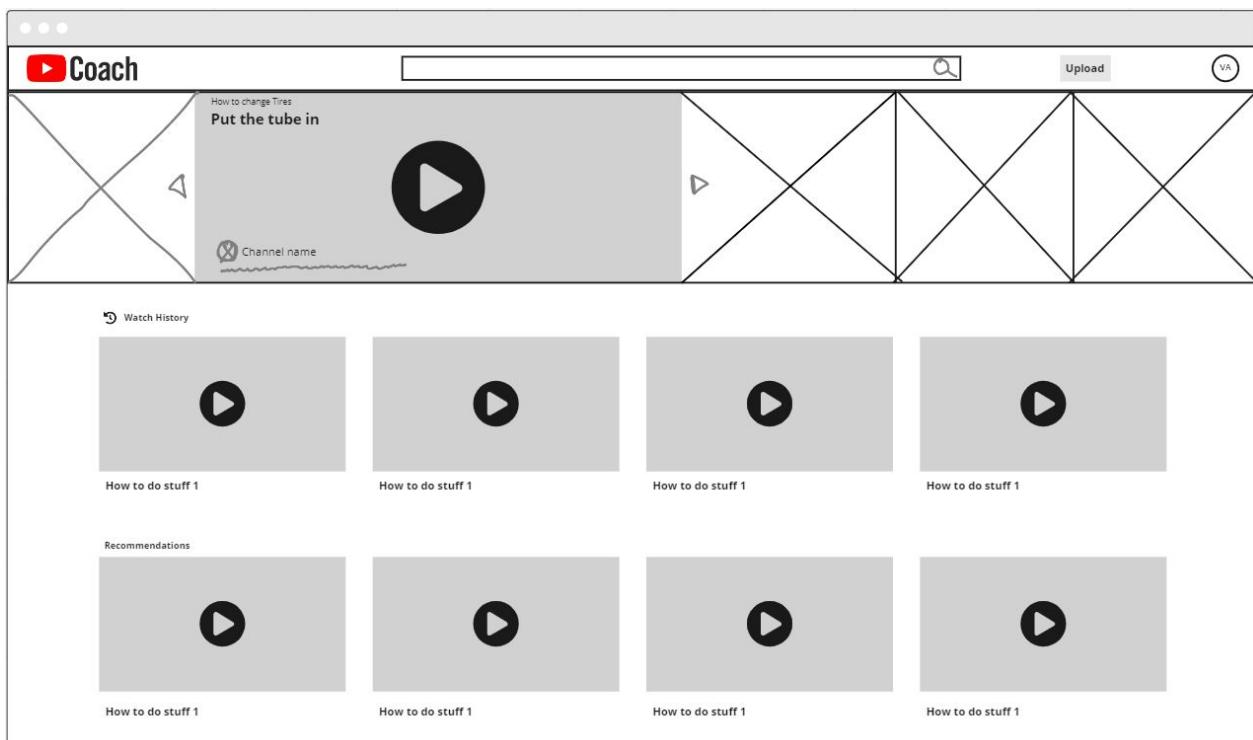
- How to apply for a driving license
- How to assemble a water cooled PC
- How to apply for US Visa

3

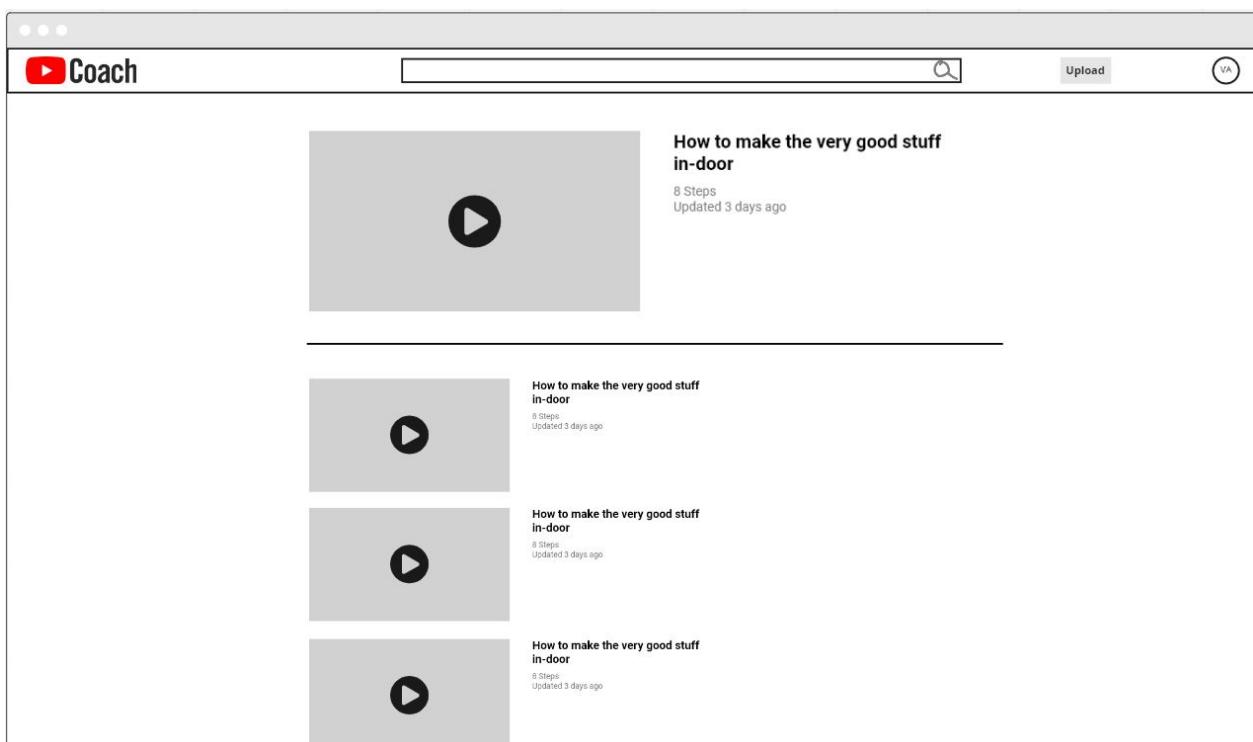
# PRODUCT PROTOTYPE

## 3.1 The Front End

### 3.1.1 Initial Wireframes



YouTube Coach Homescrren



Search Results Page

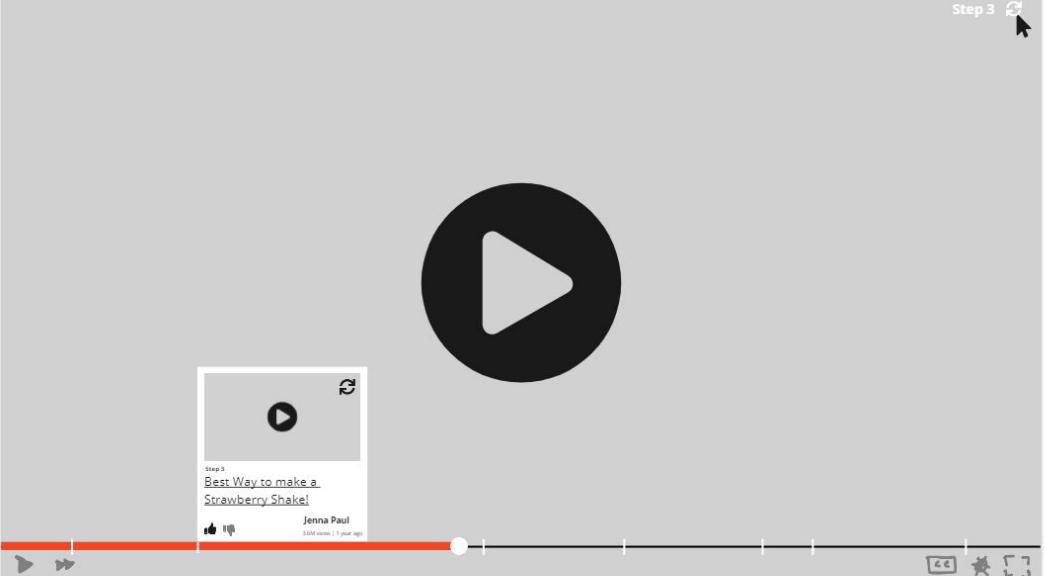


**Coach**

**Coach**

How to change Tyres

Step 3 



**How to make a strawberry milkshake**  
Step 3 - Add the chopped strawberries to a blender jar

4.3  Suggest Changes

Sources

Replace step from	
	<b>Best way to make special strawberry shake!</b> Jenna Paul 3.0M views   1 year ago
	

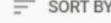
**How to do stuff**  
youtuber's way way and...  
Youtuber Name 66  
3.0M views | 1 year ago

**chop the strawberries.**  
How to do stuff  
youtuber's way way and...  
Youtuber Name 2  
3.0M views | 1 year ago

**Add the chopped strawberries to a blender jar**  
How to do stuff  
youtuber's way way and...  
Youtuber Name 66  
3.0M views | 1 year ago

**Add 2 cups of chilled milk.**  
How to do stuff  
youtuber's way way and...  
Youtuber Name 65  
3.0M views | 1 year ago

**Blend the milkshake till smooth**  
How to do stuff  
youtuber's way way and...  
Youtuber Name 66  
3.0M views | 1 year ago

497 Comments 

 Add a public comment...

 2 years ago

 9  REPLY

 9 months ago

 6  REPLY

Compiled Video Player with steps and comments



Coach

Step 3



## How to make a strawberry milkshake

Add the chopped strawberries to a blender jar |

Suggest Changes

## Sources

The screenshot shows a 'Compilation editing page' interface. On the left, a vertical timeline displays six video clips for a strawberry milkshake recipe. The first clip, 'rinse the strawberries', is highlighted with a red dot on the timeline and has a large circular 'Edit' button next to it. The second clip, 'chop the strawberries.', is also highlighted with a red dot. The third clip, 'Add the chopped strawberries to a blender jar.', is highlighted with a red dot. The fourth clip, 'Add 2 cups of chilled milk.', is highlighted with a grey dot. The fifth clip, 'Blend the milkshake till smooth.', is highlighted with a grey dot. The sixth clip, 'Step 3 How to do stuff youtubers way way and ...', is highlighted with a grey dot. On the right, a large 'Replace step from' button is shown, with three smaller preview boxes below it. The top box shows a video titled 'How to do cool stuff 1' by 'Youtuber Name' with 3.6M views. The middle box shows a video titled 'How to do stuff youtubers way way and ...' by 'Youtuber Name 85' with 1.2M views. The bottom box shows a video titled 'How to do stuff youtubers way way and ...' by 'Youtuber Name' with 3.6M views.

Compilation editing page



The screenshot shows the YouTube Coach Dashboard. On the left, there's a sidebar with links: Dashboard, Playlists, Analytics, Comments, Coach (which is selected), Copyright, Monetization, Customization, and Audio library. The main area features a large red starburst icon with the number '6' in the center, indicating 'Coach Level 6'. Below it, the text 'You have made 87 suggestions' is displayed. Two counts are shown: 'Implemented' (79) and 'Under Review' (8). To the right, a vertical column titled 'Suggested videos to contribute to' lists five items, each with a play button icon and the text 'How to do cool stuff! 1'.

## Coach Profile Page

The screenshot shows a YouTube channel page for 'Youtuber Name 66'. The channel has 1.89M subscribers. The main content includes a search bar with 'how to make strawberry milkshake', a 'JOIN' button, and a 'SUBSCRIBE' button. Below the search bar, there are 497 comments and a 'SORT BY' dropdown. A comment section is visible with several comments from 'Coach' users. To the right, there are five video thumbnails with their view counts and upload dates: 1.1M views 7 years ago, 1.2M views 2 months ago, 3.3M views 3 months ago, 15M views 6 years ago, and 40K views 2 years ago. One comment from 'Downshiftology' is highlighted.

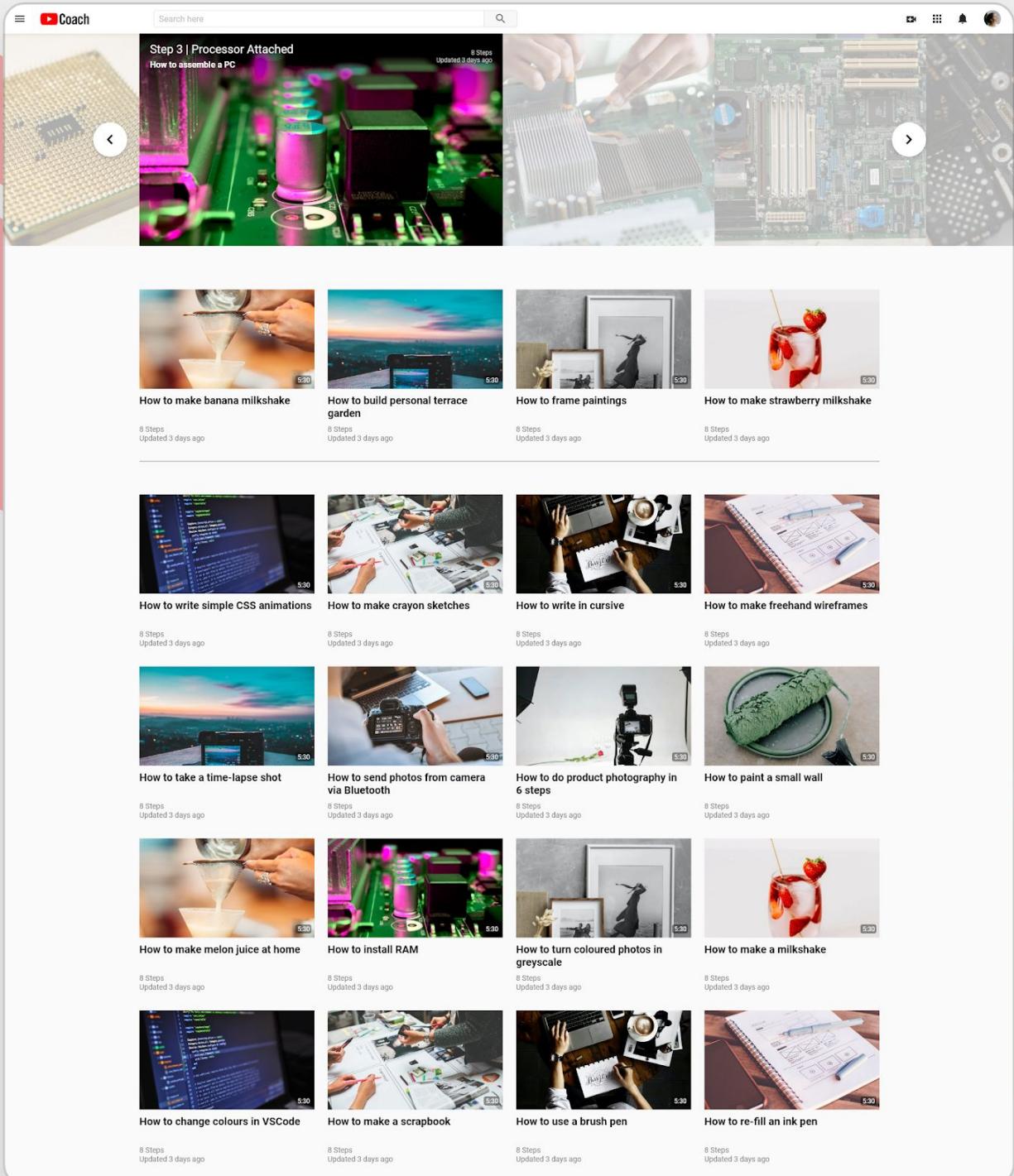
Comments reflecting on original YouTube video



Coach

### 3.1.2 High Fidelity Prototypes

Concept Video Link: <https://youtu.be/VtpMvthD0-I>



Home Page

YouTube Coach

http://coach.youtube.com/strawberry+milkshake+how+to\$make

How to Make Strawberry Milkshake Without Ice Cream

Best Match



How to Make Strawberry Milkshake | Strawberry Milkshake Without Ice Cream

8 Steps Updated 3 days ago

★★★★★

Step 1: Rinse the Strawberries with water  
Step 2: Chop the strawberries.  
Step 3: Add the chopped strawberries to a blender jar.  
Step 4: Add 2 cups of chilled milk.  
Step 5: Blend the milkshake till smooth

Other Suggestions



How to Make Strawberry Milkshake

8 Steps Updated 3 days ago

★★★★★

Step 1: Rinse the Strawberries with water  
Step 2: Chop the strawberries.  
Step 3: Add the chopped strawberries to a blender jar.  
Step 4: Add 2 cups of chilled milk.



How to Make Strawberry Milkshake from old Strawberry

8 Steps Updated 3 days ago

★★★★★

Step 1: Rinse the Strawberries with water  
Step 2: Chop the strawberries.  
Step 3: Add the chopped strawberries to a blender jar.  
Step 4: Add 2 cups of chilled milk.



How to Make Strawberry Milkshake with lime

8 Steps Updated 3 days ago

★★★★★

Step 1: Rinse the Strawberries with water  
Step 2: Chop the strawberries.  
Step 3: Add the chopped strawberries to a blender jar.  
Step 4: Add 2 cups of chilled milk.



How to Make Strawberry Milkshake with buttermilk

8 Steps Updated 3 days ago

★★★★★

Step 1: Rinse the Strawberries with water  
Step 2: Chop the strawberries.  
Step 3: Add the chopped strawberries to a blender jar.  
Step 4: Add 2 cups of chilled milk.



How to Make Strawberry Milkshake with coconut milk

8 Steps Updated 3 days ago

★★★★★

Step 1: Rinse the Strawberries with water  
Step 2: Chop the strawberries.  
Step 3: Add the chopped strawberries to a blender jar.  
Step 4: Add 2 cups of chilled milk.

## Search Results Page

The screenshot shows a YouTube Coach interface on a Mac OS X desktop. The main video player is displaying a step-by-step guide for making a strawberry milkshake. The current step shown is "Step 4: Add 2 cups of chilled milk", where a hand is pouring milk from a white pitcher into a glass. The video progress bar indicates it's at 0:32 of 3:29. Below the video, the title "How to Make Strawberry Milkshake | Strawberry Milkshake Without Ice Cream" is visible, along with a rating of 3.0 stars and a "Suggest Changes" button.

**Sources**

**Replace Step With**

- Step 1**: Rinse the Strawberries with water
- Step 2**: Chop Strawberries
- Step 3**: Add chopped strawberries to blender jar
- Step 4**: Add 2 cups of chilled milk
- Step 5**: Blend till smooth

**Full fat milk vs skimmed milk what to use in a milkshake** by Dr Reema Sen (180K views | 7 months ago)

**How to use coconut milk in a milkshake** by Aron Methew (140K views | 2 months ago)

## Video Player

YouTube Coach

[http://coach.youtube.com/strawberry+milkshake+how+to\\$make](http://coach.youtube.com/strawberry+milkshake+how+to$make)

Coach

Search here

Step 3

How to Make Strawberry Milkshake | Strawberry Milkshake Without Ice Cream

Step 3 : Add chopped strawberries to blender jar

3.0

Suggest Changes

Sources ▾

Step 1 Rinse the Strawberries with water

How to make a strawberry milkshake with homogenized strawberries Sangeev Kapoor 7.4M views 1 month ago

Step 2 Chop Strawberries

How to make a strawberry milkshake with homogenized strawberries Sangeev Kapoor 1.4M views 1 month ago

Step 3 Add chopped strawberries to blender jar

How to make a strawberry milkshake with homogenized strawberries Sangeev Kapoor 7.4M views 1 month ago

Step 4 Add 2 cups of chilled milk

How to make a strawberry milkshake with homogenized strawberries Sangeev Kapoor 1.4M views 1 month ago

Step 5 Blend till smooth

Replace Step With

Full fat milk vs skimmed milk what to use in a milkshake Dr Reema Sen 180K views 7 months ago

How to use coconut milk in a milkshake Aron Methew 140K views 2 months ago

## Compilation Editor

The screenshot shows the YouTube Coach Dashboard. At the top center is a large red badge with the number '6'. Below it, the text 'Coach Level 6' is displayed. To the right, there are two counts: 'Implemented' (79) and 'Under Review' (8). On the left, a sidebar lists navigation options: Dashboard, Playlist, Analytics, Comments, Coach (which is selected), Copyright, Monetization, Customization, and Audio Library. In the center, there's a 'Comments' section showing '14.6 K Comments'. To the right, there's an 'Analytics' section with a chart showing views over the last 7 days, and a 'Suggested Video to Contribute' section featuring three video thumbnails.

Your Channel  
Merak Sals

Coach

Search here

Coach Dashboard

6

Coach Level 6

You have made 87 Suggestions

Implemented 79 Under Review 8

Comments 14.6 K Comments

Analytics

Current followers 246 k

Summary

In last 7 days  
Views ~600k  
Watch Time ~12.4M

In last 28 days  
Views ~1.2M  
Watch Time ~38.0M

Views

Suggested Video to Contribute

Full fat milk vs skimmed milk what to use in a milkshake Dr Reema Sen 10k views 1 month ago

How to use coconut milk in a milkshake Aron Methew 10k views 1 month ago

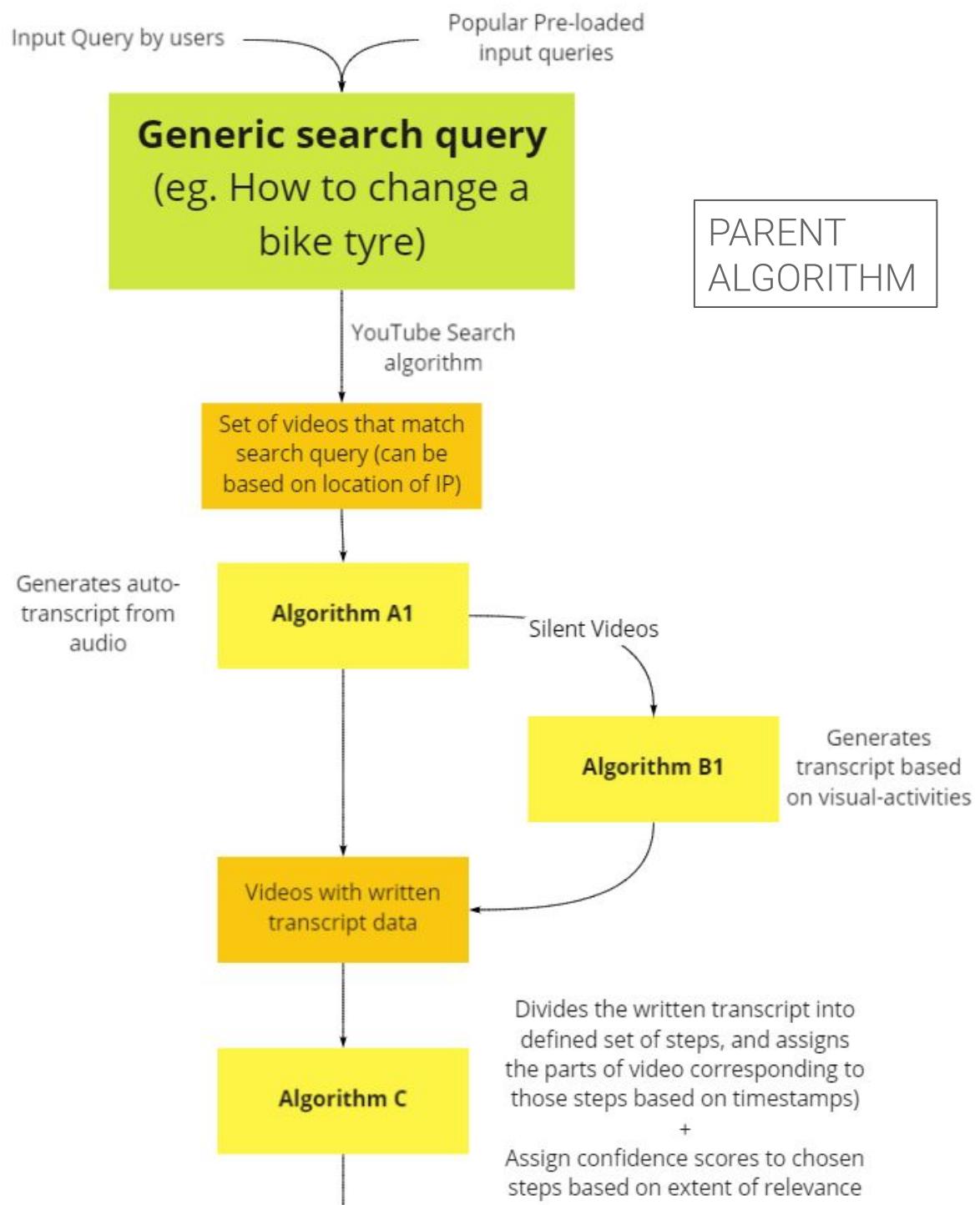
Vegan milk almond milkshake healthy milkshake Harpal Sodhi 10k views 1 month ago

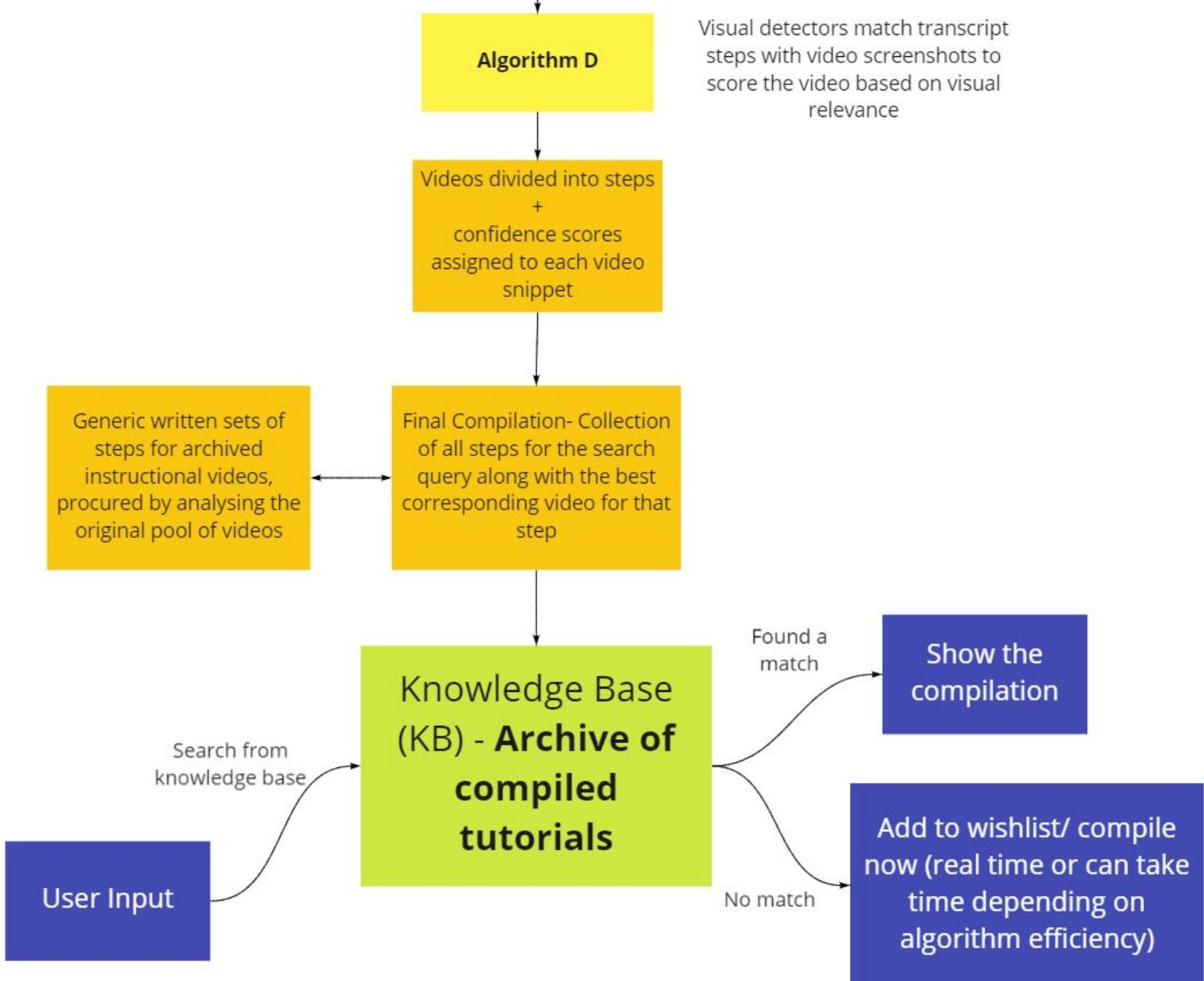
## Coach Dashboard

## 3.2 The Back End

### 3.2.1 Compiling the tutorial

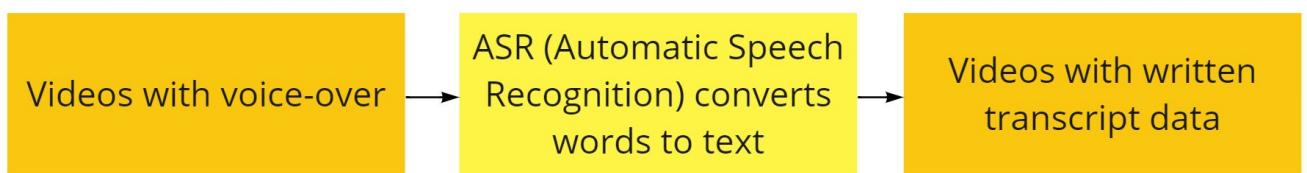
Selection of the best and the most relevant YouTube videos to take individual steps from and then stitching them together to present the user with a compilation is done by an algorithm we are referring here to as the **Parent Algorithm**. The Parent Algorithm uses **4 children algorithms** for various specialized tasks. The steps followed by it are as follows:





**Figure 2: Parent Algorithm**

*Does the job of searching, selecting and compiling tutorial videos automatically*



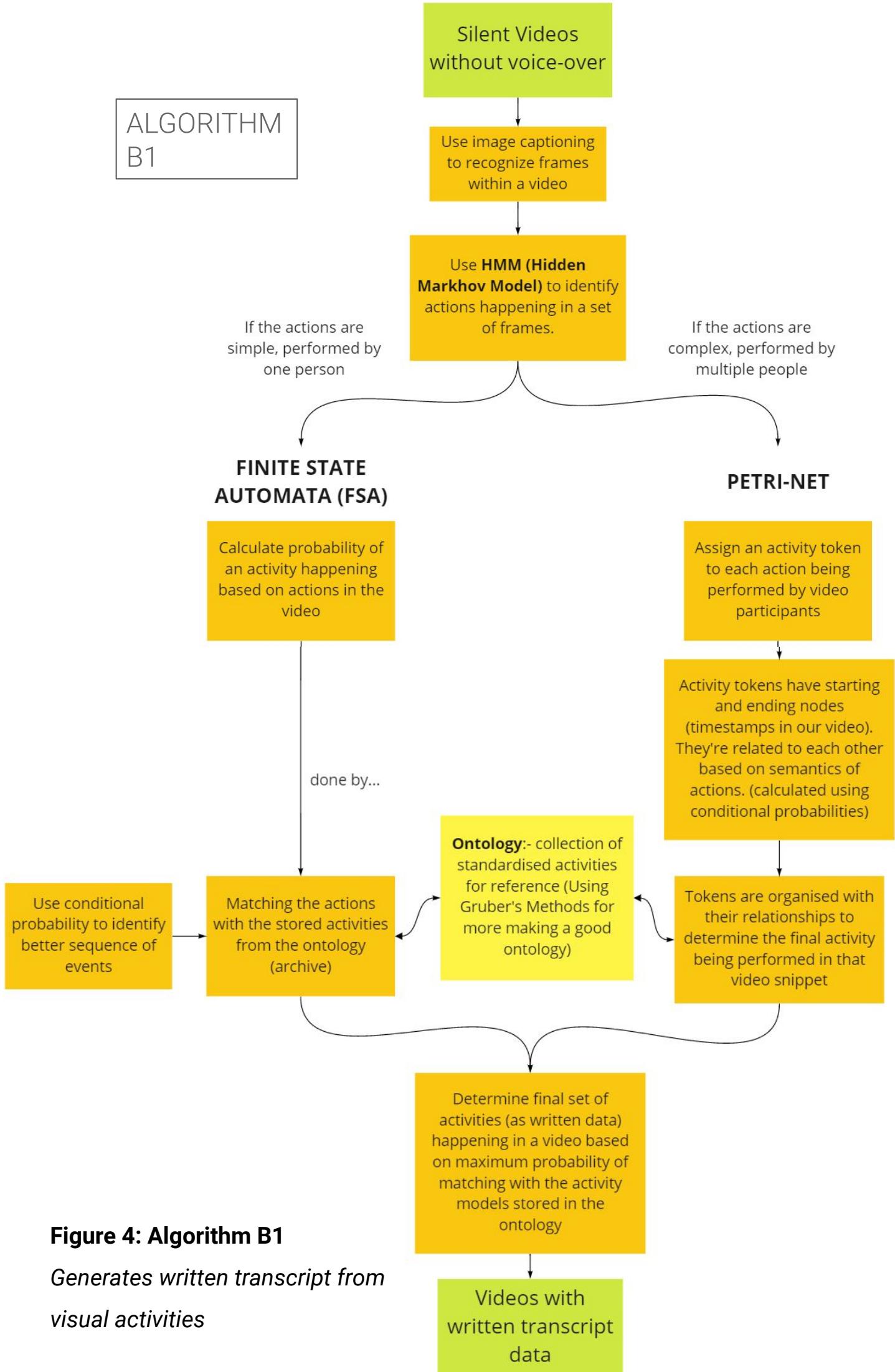
**Figure 3: Algorithm A1**

*Generates written transcript from audio*



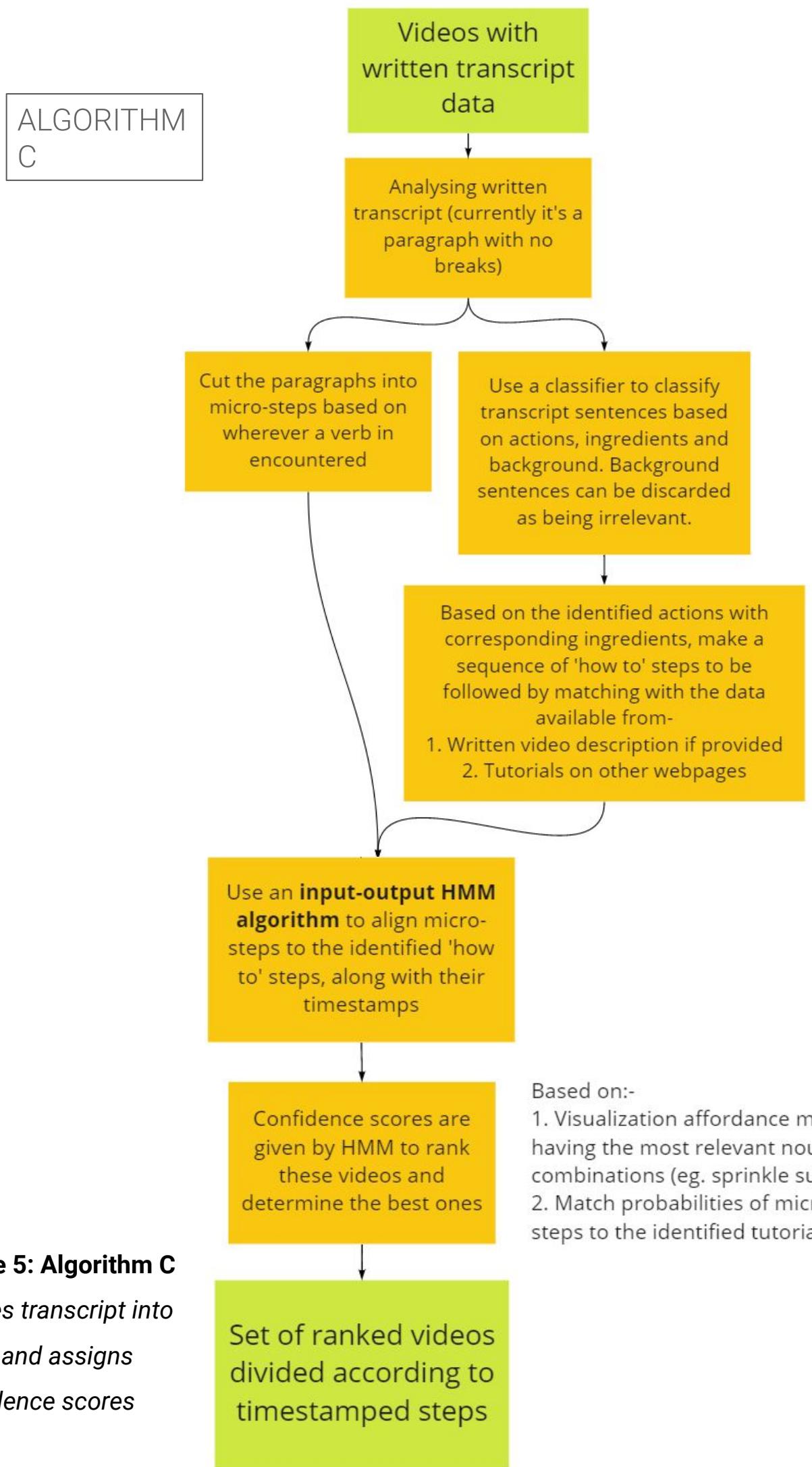
**Coach**

## ALGORITHM B1



**Figure 4: Algorithm B1**

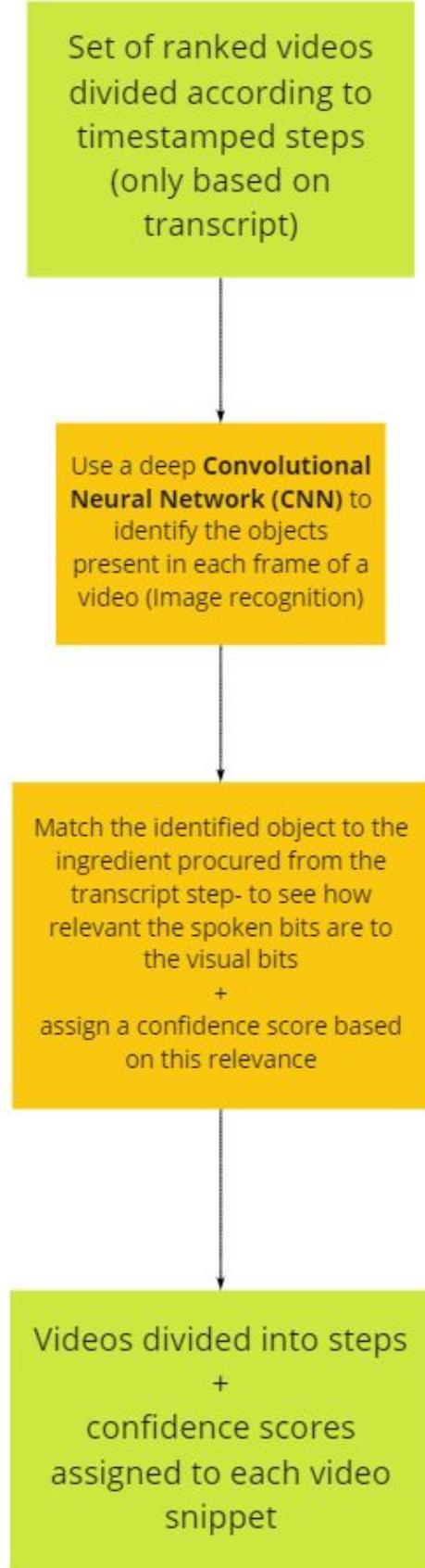
Generates written transcript from visual activities



**Figure 5: Algorithm C**

*Divides transcript into steps and assigns confidence scores*

ALGORITHM  
D



**Figure 6: Algorithm D**

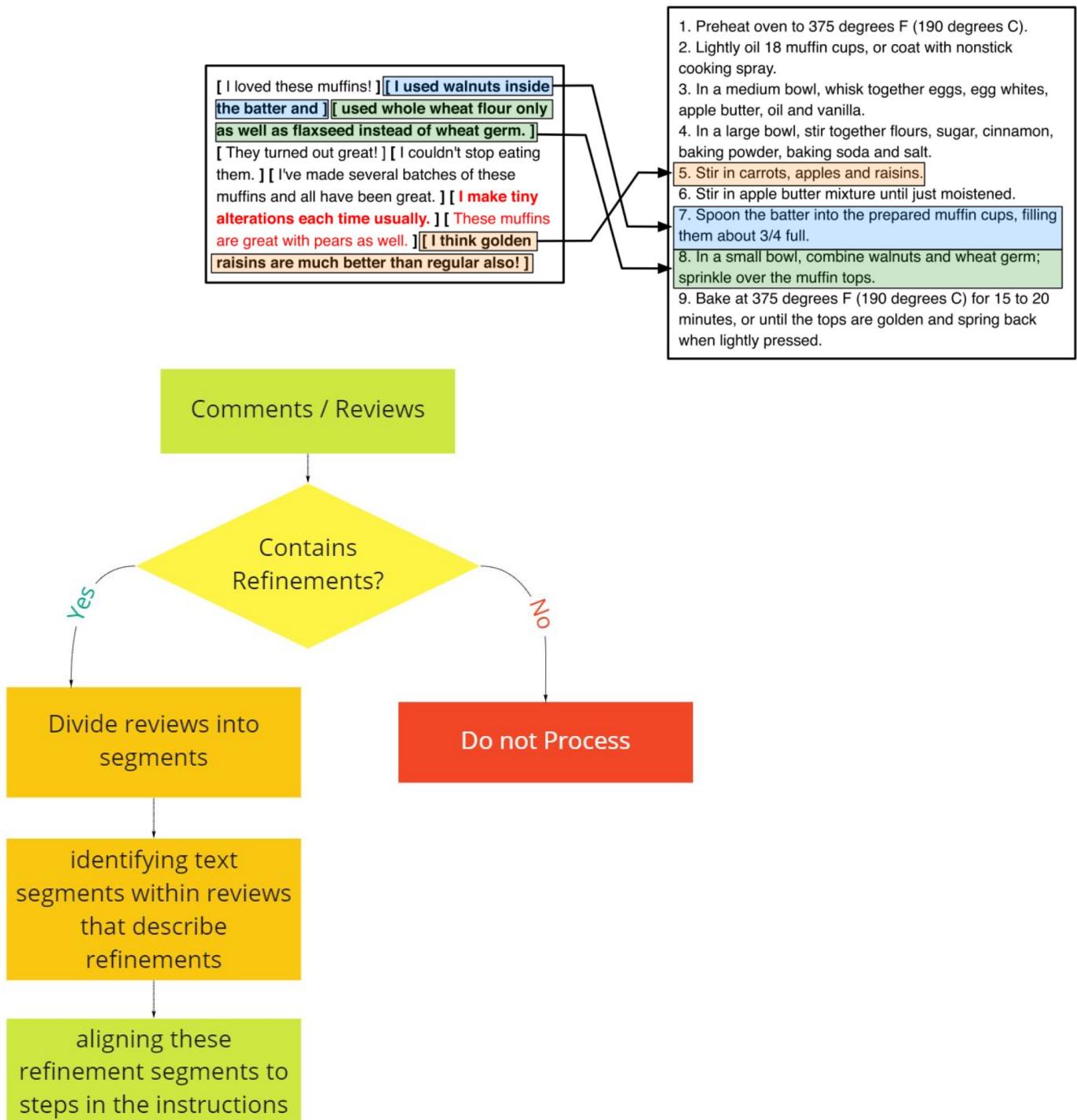
*Visual detectors match transcript steps with video screenshots to score the video based on visual relevance*



Coach

### 3.2.2 Processing User Feedback

Comments made by users are continuously analysed by the algorithm. If the comment provides constructive feedback about a process, the algorithm uses it to improve upon the process it automatically generated from the data available online.



**Figure 7: Comment Refinement Algorithm**

*Making refinements to algorithmically generated Instructions from user comments*

# 4 THE USER JOURNEY

## 4.1 Personas and Scenarios



### Persona 1- Passive User (Consumes Information)

**Arun**, a XII class student, **wants to make a milkshake**. He searches for the tutorials on YouTube but can't find a 'perfect' tutorial. He **uses YouTube Coach to search for 'the perfect' instructional video**, which contains positive and the most helpful aspects of all these videos, without him having to manually shuffle through them.

**Arun searches for "How to make a milkshake"**

The screenshot shows the YouTube Coach interface. At the top, there's a search bar with the placeholder 'Search here'. Below it, a large thumbnail for a video titled 'Step 3 | Processor Attached' from the channel 'How to assemble a PC' is displayed. This video has 8 steps and was updated 3 days ago. To the right of this main thumbnail is a magnifying glass icon. Below the main thumbnail, there are four smaller thumbnail cards for other videos:

- How to make the very good stuff in-door**: 8 Steps, Updated 3 days ago
- How to make the very good stuff in-door**: 8 Steps, Updated 3 days ago
- How to make the very good stuff in-door**: 8 Steps, Updated 3 days ago
- How to make the very good stuff in-door**: 8 Steps, Updated 3 days ago



**Coach**

# YouTube Coach shows him search results of various instructional compilations sorted by relevance

YouTube Coach search results for "How to Make Strawberry Milkshake Without Ice Cream".

**Best Match**

**How to Make Strawberry Milkshake | Strawberry Milkshake Without Ice Cream**  
8 Steps Updated 3 days ago  
★★★★★

Step 1: Rinse the Strawberries with water  
Step 2: Chop the strawberries.  
Step 3: Add the chopped strawberries to a blender jar  
Step 4: Add 2 cups of chilled milk.  
Step 5: Blend the milkshake till smooth

**Other Suggestions**

**How to Make Strawberry Milkshake**  
8 Steps Updated 3 days ago  
★★★★★

Step 1: Rinse the Strawberries with water  
Step 2: Chop the strawberries.  
Step 3: Add the chopped strawberries to a blender jar  
Step 4: Add 2 cups of chilled milk.

He clicks open the first result,  
"How to make a strawberry  
milkshake"

YouTube Coach search results for "How to Make Strawberry Milkshake".

**Other Suggestions**

**How to Make Strawberry Milkshake**  
8 Steps Updated 3 days ago  
★★★★★

Step 1: Rinse the Strawberries with water  
Step 2: Chop the strawberries.  
Step 3: Add the chopped strawberries to a blender jar  
Step 4: Add 2 cups of chilled milk.

**How to Make Strawberry Milkshake from old Strawberry**  
8 Steps Updated 3 days ago  
★★★★★

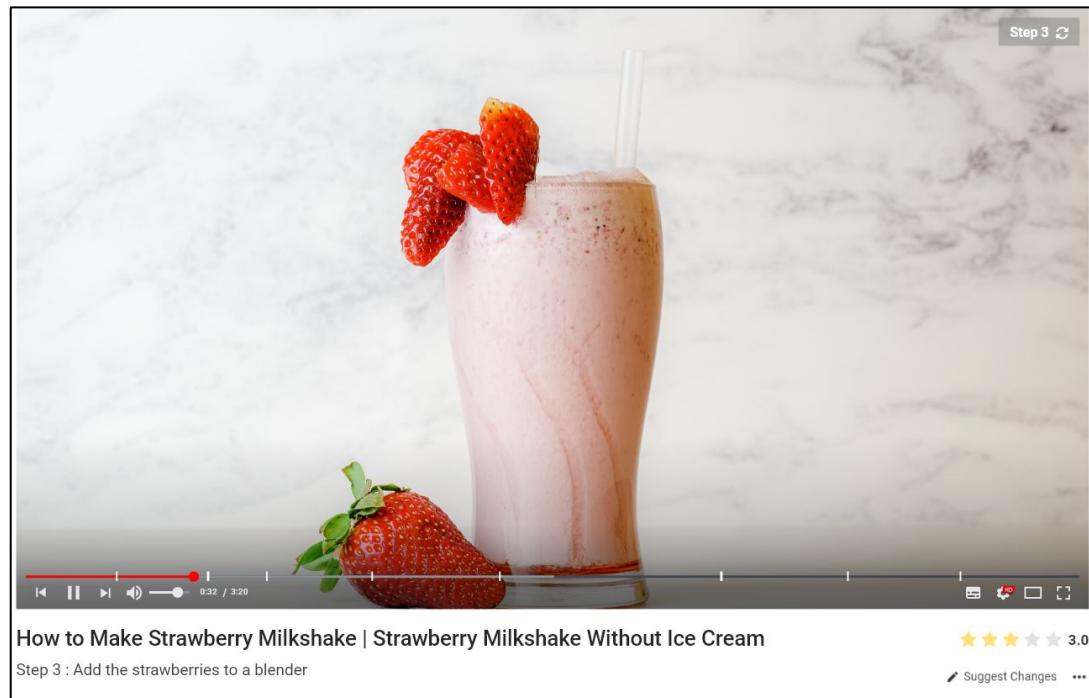
Step 1: Rinse the Strawberries with water  
Step 2: Chop the strawberries.  
Step 3: Add the chopped strawberries to a blender jar  
Step 4: Add 2 cups of chilled milk.

**How to Make Strawberry Milkshake with lime**  
8 Steps Updated 3 days ago  
★★★★★



Coach

**He is taken to the video player page which consists of the compilation, with different steps from different YouTube videos based on relevance**



**He gives the compilation a 5 star rating after watching it, as it was helpful. He leaves a comment with timestamp for step 4 saying "This really saved me from frustration!".**



**Coach**



## Persona 2- Active Contributor (Consumes Information and Contributes to the Platform)

Vimala is a 3rd-year Computer Science Student. She wants to **assemble a PC which is water-cooled**. She searches on YouTube but could not find a good video. She searches YT Coach for the instructional compilation, and gets one decided by the algorithm. She doesn't like it, and **wants to contribute to the platform** by suggesting some edits/additions.

Vimala searches for "How to assemble a PC"

The screenshot shows a user interface for a video sharing platform. At the top, there's a search bar with the placeholder 'Search here'. Below the search bar, the title 'Coach' is visible next to a camera icon. The main content area displays a search result for the query 'How to assemble a PC'. The top result is a thumbnail for a video titled 'Step 3 | Processor Attached' from the channel 'How to assemble a PC'. The thumbnail shows a close-up of a computer motherboard with a processor and RAM. Below this, there are four smaller video thumbnails, each with the title 'How to make the very good stuff in-door'. These thumbnails show various indoor scenes: a hand pouring liquid into a glass, a sunset over a city skyline, a person standing in front of a painting, and a strawberry being dipped in chocolate.



Coach

**YouTube Coach shows her search results. She clicks open the third result based on her preference.**

Other Suggestions

**How to install RAM and processor**  
8 Steps  
Updated 53 days ago  
  
Step 1: Set the parts on a table  
Step 2: Remove the RAM from the holder  
Step 3: Check the cooling system  
Step 4: Install the PSU

**How to assemble a workstation**  
10 Steps  
Updated 6 days ago  
  
Step 1: Set the parts on a table  
Step 2: Remove the RAM from the holder  
Step 3: Check the cooling system  
Step 4: Install the PSU

**How to assemble a PC**  
7 Steps  
Updated 23 days ago  
  
Step 1: Set the parts on a table  
Step 2: Remove the RAM from the holder  
Step 3: Check the cooling system  
Step 4: Install the PSU

**She is taken to the video player page which consists of the compilation, with different steps from different YouTube videos based on relevance**

Step 3 



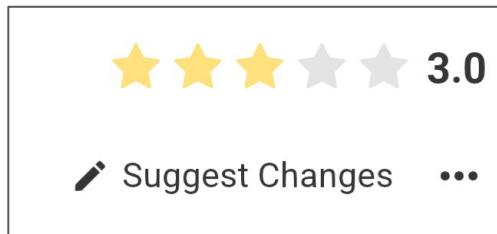
How to assemble a PC  
Step 4 : Install the processor

 Suggest Changes ...



Coach

**She realises that the compiled video is not much helpful, and wants to contribute to it. He clicks on the 'Suggest Changes' button.**



**An editor opens, where she changes the video sequence and edits some keywords in the steps.**

A screenshot of a video editing or moderation interface. At the top, there is a video thumbnail showing a person working on a computer case. Below the video, the title "How to assemble a PC" and subtitle "Step 3 : Install the RAM" are displayed. To the right, there is a 3.0 rating and a red "Suggest Changes" button. The main area shows three steps for assembling a PC:

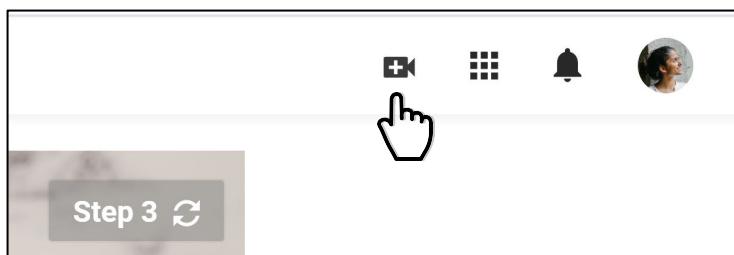
- Step 1**: Open case and remove the black screws. Below the thumbnail, it says "Build your PC at home" by John McCain, 1.4 M views | 6 months ago.
- Step 2**: Screw motherboard to the case. Below the thumbnail, it says "How to assemble your very own PC" by John McCain, 1.4 M views | 6 months ago.
- Step 3**: Install the RAM. Below the thumbnail, it says "DIY PC Assembly" by Ram Khurana, 1.4 M views | 6 months ago.

To the right of these steps, there is a section titled "Replace Step With" showing a thumbnail for "Change soldered RAM from a system" by Reema Sen, 180k views | 7 months ago. This thumbnail shows a close-up of a RAM module being installed into a motherboard slot, with a red arrow pointing to a label "Tab not aligned".

**She submits the suggested changes, and is given a splash screen saying, "Thank you for your suggestion. It is being reviewed."**



**She wants to add her own video to the suggested compilation, as she feels that there are no good videos for processor coolant installation. She clicks on Add Video button**



**She is taken to the standard YouTube Creator's page where she can upload the video, and check mark the "suitable for YouTube Coach" option.**

A screenshot of the YouTube Creator Studio upload page. The title of the video is "How to build a PC with water cooling". The "Details" tab is selected. In the "Upload thumbnail" section, there is a placeholder box with a plus sign and the text "Upload thumbnail". In the "Visibility" section, the slider is set to "Public". The "Playlists" section shows a dropdown menu with "Select". The "Audience" section has a heading "Is this video made to teach a process?". Below it, it says "Youtube coach is a youtube based website for learners. If you are teaching a stepwise process to do something please check the box below." A link "Learn more" is provided. There is a checked checkbox "Yes, it is suitable for YouTube Coach" with a hand cursor pointing to it. The "Is this video made for kids? (required)" section contains a note about COPPA laws and a link "What's content made for kids?". It also includes two radio buttons: "Yes, it's made for kids" and "No, it's not made for kids". At the bottom, a progress bar shows "Uploading 5%" and a "NEXT" button.

## 4.2 Processing User Feedback

User Feedback processed by the YouTube Coach system can be either passive or active.

### Passive Feedback includes-

- **Selecting the next video** from the suggestions for a certain step. (Gives the algorithm an idea about the generalised behavioural patterns of users to determine better videos)

### Active feedback includes-

- Editor allowing for people to **manually submit improved versions** of an algorithmically suggested compilation
- **Star rating system** to determine which compilations are working out and which are not
- **Comments** by users

596 Comments      Sort By

 **Vimala** | Step 2: Chop the strawberries.  
I did not cut the strawberries last time! haha!

  Reply 1 day ago



 **Ashley** | Step 4: Chop the strawberries.  
FYI to the viewerssss! Add Ice-cream just after this stage if you have some!

  Reply 3 days ago

 **Arun** | Step 2: Chop the strawberries.  
Can I add mango instead of strawberry at this step to make mango shake? I think i can!

 5  Reply 7 days ago

Comments on individual steps



Coach

# CONCLUSIONS AND FUTURE SCOPE

The idea for YouTube Coach was conceived after realising how big of a learning industry YouTube is currently supporting. Unfortunately, this wealth of learning information highly lacks structure, and the viewer is at the mercy of recommendations, a problem which we sought to address. We believe that, over time, **our platform would see an exponential increase in its potential of being a good tutorial website**, as the algorithm recommendations get better and coaches give more and more submissions and feedback.

## **Future Scope-**

Some of the features listed below could be implemented in future updates to the application-

- **An insider program** similar to YouTube Creator Insider, acting as a social media **featuring best coaches**.
- **Can include videos with regional languages**, to create regional language-specific compilations
- **Training the coaches to use more formal instructional methods** and contribute to the algorithmic ranking system to make it more qualitative- The points shared in this report can be made available to the coaches on the website as tips on how to upload and compile better instructional videos. Although not currently covered in the scope of this particular project, it can be done as part of a Coach Improvement program YouTube Coaches can formally enroll into, serving as a guide on how to give qualitatively better compilation suggestions.



# ACKNOWLEDGEMENTS AND REFERENCES

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