

Part III: 3 Technical Implementation Decisions:

1. **Autocomplete for search box in the home page:** Initially my plan was to plug in YouTube search API to the input search field so that user could type any query or question and the API would return a list of results from which I would be picking the top five to display in my website. But I ditched this approach as I felt it to be too vague to tackle the problem in question, which was focussed mainly towards science. I also found that users could type any term which may have little in common with my domain. I therefore implemented an autocomplete feature from a curated list of videos and surfacing results that met the user's criterion.
2. **Using YouTube iframe API for video interactions:** One of my earlier decisions to implement video interactions to make the videos available locally and embed them on the website using HTML5 video player. But as I added more features like looping through a segment, or seeking to a specific start time, I realized most of these functions are available via the YouTube iframe API and hence I decided to go with iframe embeds for the YouTube videos that I am referencing in the website.
3. **Adding a dropdown to let users jump to specific times in the video:** Users can interact with the video being played by marking specific start times in the video so that they can revisit them later for annotation purposes. I originally toyed with the idea of providing them as part of a notepad area, which users can click on to jump to those times. But then I quickly realized during testing that users were confused what these times referred to and had to be explained what the feature meant. I finally implemented it as a dropdown which I feel is more intuitive. Since it's present right below the video player, users are more likely to associate it with a function of the player.