XChatFans Confidential

The Role of AI

Collaborative Filtering will promote content to the users that will most likely be positive recipients, thus giving the content creators potential future subscribers—content (even a good one) is less likely to appeal to the wrong audience. Thus, with Collaborative Filtering everyone is a winner—meaning, both the users as well as the content creators.

Our AI content analysis algorithms coupled with Collaborative Filtering will give us insight on what is currently of interest—we can sell such advice as subscription to our Human-Content-Creators to direct them towards producing more audience relevant content. This information will also be fed to our own in-house built AI-Content Creators thus making them more attuned to what is currently trending.

Our AI-ChatBots will aid Human Content Creators. I.e. in the absence of the Human Content Creator an AI-ChatBot will step in and provide an engaging interaction with each given follower/subscriber. Depending on the Human Content Creator's level of engagement (their role in personalizing their AI-ChatBot), the bot can be made to sound just like their corresponding Human Content Creator. We achieve this via our AI Voice Cloning technology. Furthermore, as more and more data becomes available, our AI-ChatBots will be able to express themselves linguistically in a very similar fashion as their corresponding Human Content Creators. This is possible via the analysis of the captured Human Content Creator's chat history—YES we capture and store the entire chat data (which is a viable product in its own right and it can be used to train future conversional bots). Such conversational data is available to our RAG (Retrieval-Augmented Generation) system which allows the AI-ChatBot to carry-on/continue the already ongoing conversation when the Human Content Creators are doing other human related activities—e.g. us humans need to sleep, machines are not bounded by such limitations.

Our fully AI driven characters (AI-Characters) like e.g. Mother Goose, Red Riding Hood, Mr. Gray, …more to come … are designed to provide story-based entertainment and well as companionship to our human website users. The stories will be sold as a package accompanied by relevant (to the story) images (generated by our AI model) and in the near future also relevant short videos (also generated by another AI model).

Our AI-Content-Creators are also fully AI generated personas, each with his/hers own unique look, sound and personality. Their library will contain images and videos which the website users can purchase. Their main purpose is to provide Companionship to the lonely website users by utilizing our RAG system—which provides for a superhuman level of attention to each user (our RAG enables our AI-Content-Creators to remember every single conversational detail—which most of us normal humans can only dream of). Thus, by being very intimately user-centered, they are designed to create strong long lasting relationships with their human users.

Among many other things, our website will also contain a digital store. This is where, a user can purchase digital items for their favorite AI-Content-Creator or AI-Character—picture your favorite AI hottie wearing that sexy piece of attire you just got for her/him. Thus, via the power of AI (using our Stable Diffusion based model), we'll generate images in which the given AI-Content-Creator or AI-Character is shown interacting with the given user-gifted digital item(s).

Collaborative Filtering

facts:

I know that **user A** likes the content provided by **content creator X**
I know that **content creator Y** is similar to **content creator X**

prediction:

user A will also enjoy the content by **content creator Y**

action:

recommend **content creator Y** and their relevant content to **user A**

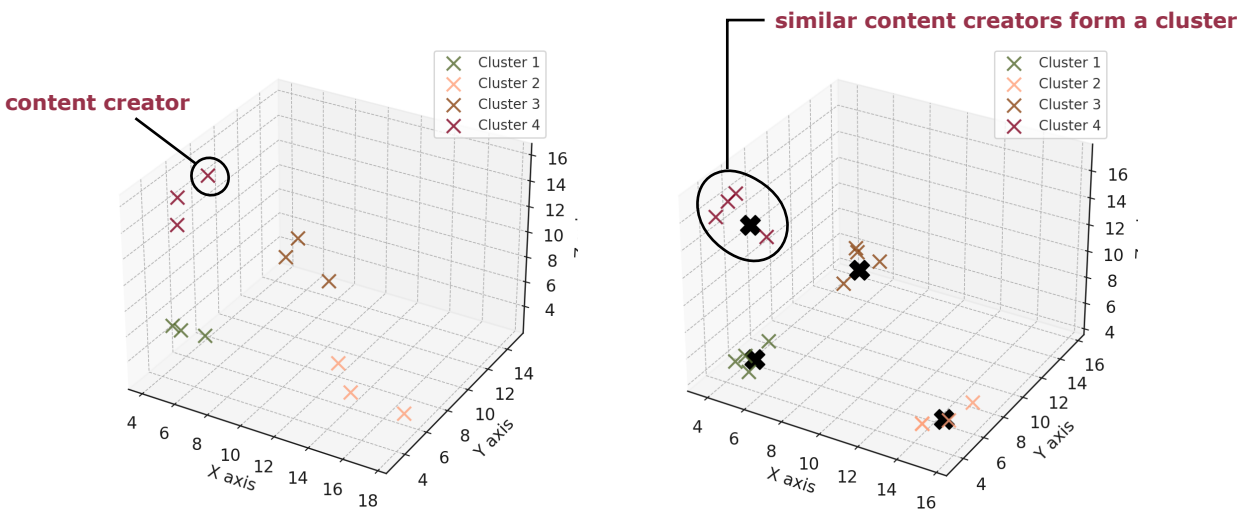
As a company, we are focused on providing relevant, personal and imaginative content. To achieve that, we follow each users browsing habits. But knowing what they are watching, is only a part of the story—we also monitor who is watching who and why? Our machine learning algorithms work night and day to discover such subtle pieces of data. We continually seek to know what drives our user's behavior and act upon that information to provide a service beyond the possibilities of a conventional website.

Who follows who?

- **TASK**: obtain and compute **personality score** of each **content creator**. The computational data comes from a brief personality quiz.

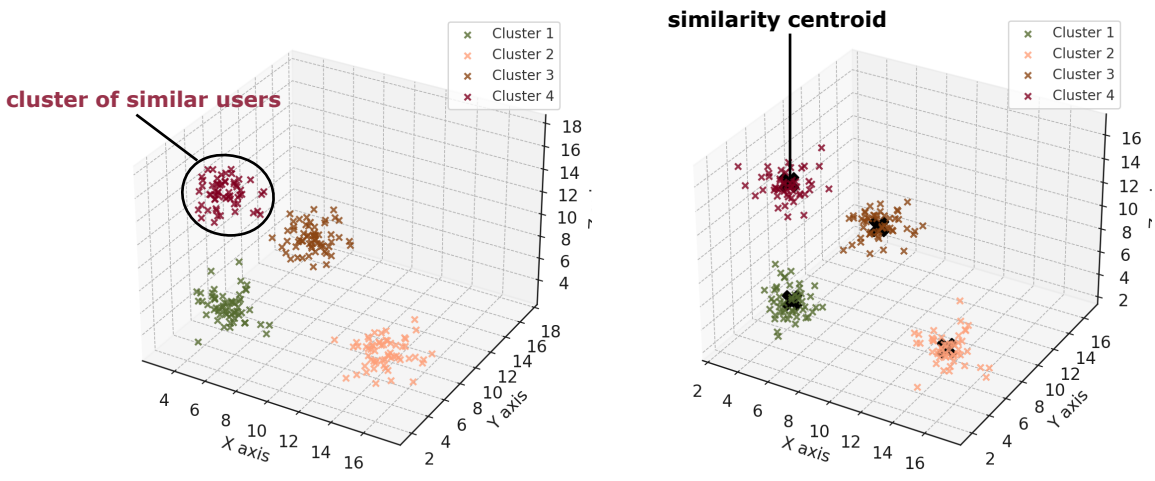
  Content Creator X → their Content
  Content Creator Y → their Content
  Content Creator Z → their Content

After obtaining and computing each **content creator**'s personality coordinates, we can determine their location within our proprietary multidimensional personality space. Next, we run a clustering algorithm to determine their proximity with respect to the other content creators—similar content creators will occupy the same spacial neighborhood forming a cluster.

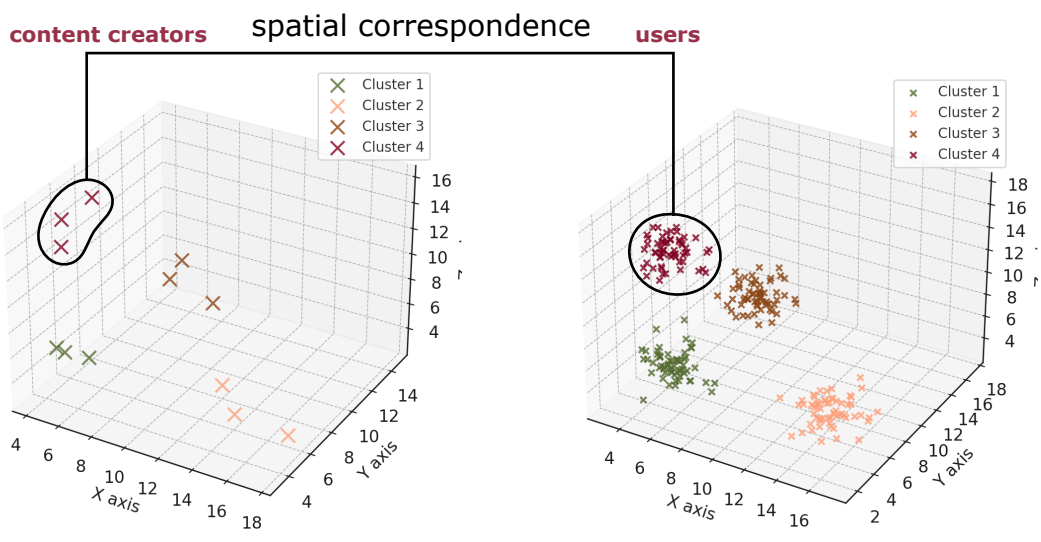


- **TASK**: obtain and compute **personality score** of each **fan** (website **user**). Use promotions, token rewards etc. to entice the users to take our very short personality quiz.

After obtaining and computing each **user**'s personality coordinates and determining their location within our personality space, we run a clustering algorithm to determine to which cluster of users they belong—similar users will occupy the same cluster.



Finally, we compare the clusters formed by the users against the clusters formed by content creators. See if there is a spatial correspondence between the two. If there is a match, we next perform content analysis and based on its outcome, we start producing recommendations. E.g. we can now recommend additional content coming from the same or other content creators. Furthermore we are able to recommend other content creators that have not yet been seen by the given user. This approach has many benefits, e.g. it will increase the viewership among all the content creators residing within the same cluster as well as grow their corresponding fanbases. Moreover, the users themselves will find more entertainment value and satisfaction in being our members.



We are a company driven by machine learning algorithms, and we use A.I. to help content creators to not only produce more content—but content that speaks to their corresponding fans on an intimate level. To achieve such a personal level granularity, each of the content creators can be coupled with a personal chatbot. Our chatbots have direct access to our user data and can be trained and dynamically adjusted to the specific needs of each individual user. Note that, such level of individual refinement simply can not be achieved by us humans. Well, our chatbots are not burdened by our human needs—they don't get tired, need to sleep, eat or rest—our bots can operate 24/7 and as time goes on and more data is collected, they become even better.

Who likes what?

Given: **$video_1$** **$video_2$**

A. Video Processing:
   1. a Content Creator uploads their content e.g. videos to our cloud storage service.
   2. we take each video and we extract audio and video frames out of it.

B. Transcription and Analysis:
   1. we take the extracted audio and using STT (speech-to-text) we generate a transcript of the video's dialogue.

      BUT what about those videos that contain NO (or very limited) dialogue?

   2. we employ Computer Vision tools to analyze video frames for contextual information, such as characters, scenes, actions, etc…

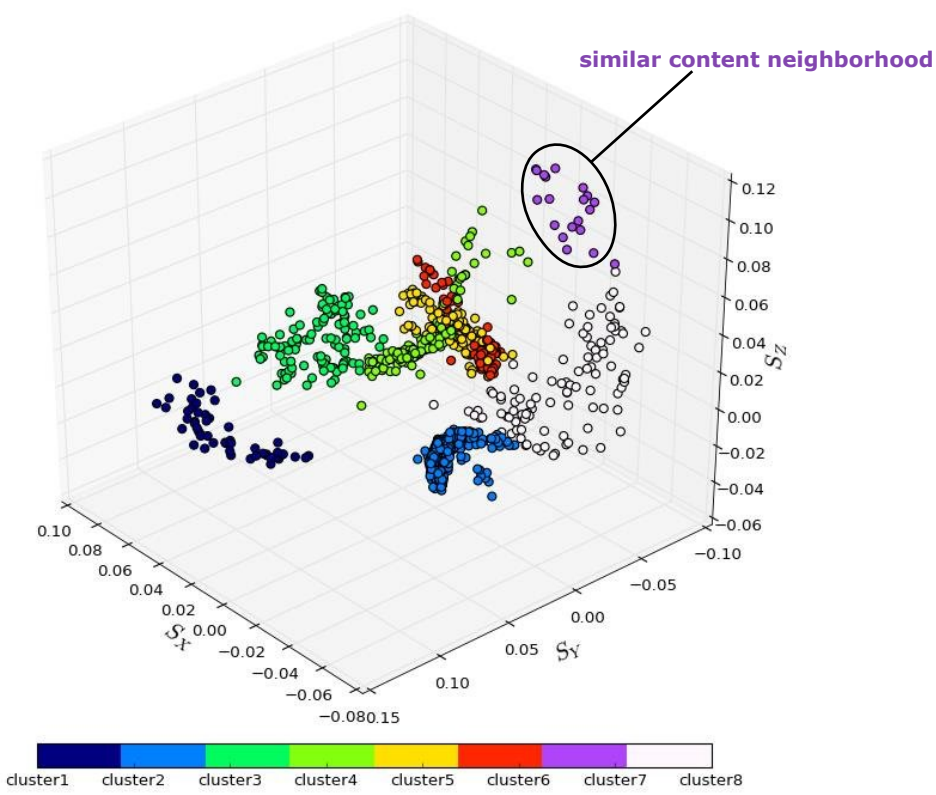
C. Data Extraction:
   We compile relevant information from the transcript and video analysis, including plot points, character interactions, key scenes, etc…

D. Summarization:
   We feed the above extracted data into our LLM (large language model) to generate a concise summary of the video.

E. Embedding:
   Using our Embedding Model we convert the above derived summary into a vector and store it into our vector database.

F. Recommendation:
   1. Having all uploaded content represented as vector embeddings in our vector database, we can now proceed to analyze user browsing data. Based on e.g. Cosine Similarity measure against each user's browsing history, we can now recommend more still yet to be seen content—furthermore, we benefit each content creator with advice about what content creation they should focus on.
   2. Moreover, when the demand for a specific content reaches a critical mass, we can further apprise all the relevant content creators to the growing need for that specific content.
   3. Based on the users browsing habits we adjust the user-coupled chatbots to mention and recommend content that the given user will most likely find enjoyable.

Similar content forms clusters:



$movie_{1,2}$ → video processing : audio → STT model: transcript.txt
: video frames → CV model: context.txt
Σ information.txt
↓
$vector\_embedding_{1,2}$: Embedding Model ← summary.txt :LLModel

Let:

$vector\_embedding_1$ as $\vec{U}$

$vector\_embedding_2$ as $\vec{V}$

then

$$\textbf{Cosine Similarity}\ (\vec{U}, \vec{V}) = \frac{\vec{U} \cdot \vec{V}}{\|\vec{U}\|\ \|\vec{V}\|} = \theta$$

The cosine similarity between two vectors is measured in θ .

If θ = 0°, the U and V vectors overlap, thus proving they are similar.

If θ = 90°, the U and V vectors are dissimilar.