1. Introduction

-Motivation: When we are searching for certain types of videos, only a little part within a video contains the exact things we would like to see. We would like to help users jump to the correct timing which contains the exact keyword they would like to see of a given video.

-Target user: general public, merchants, researchers

-MVP: find out the information stored in non-literal format such as videos or photos which may be related to the keywords provided by users.

1. Method

-Python: Our main script is written in Python for having lots of library to use. In addition, it becomes intuitive when designing user interface by Python.

-OpenCV: This library contains lots of functions to use especially for image or video processing.

-YOLO: You-Only-Look-Once, a type of machine learning algorithm. We implemented this because it takes a shorter time and it is more understandable for beginners.

-Darknet: This library speeds up the training process with lots of parameters to tune.

1. System Design

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1. User Interface

-User interface sample (80 keywords to choose from)

-Time indication (in seconds) of keywords detected

1. Outlook

-Generate labeled video

-Pop out short sections of video which contains the keywords

1. Conclusion

-The accuracy of our training model is about 71% and the number of labels we provide is 80.

-Users have to download the videos they would like to analyze and put them under the same folder with our script and model

-Future development may focus on importing different models providing more labels for users