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DEVELOPING AN EFFICIENT TECHNIQUE FOR FACE ANNOTATION SCHEME

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Abstract: Various face annotation techniques have been still research area. In image processing with lots of face annotation algorithm to design the efficient face annotation technique. Ideal face detector, situation and subject clustering, collaborative face recognition method, semantic web and semantic annotation technique and frame level facial recognition method. This paper proposed a method which is combination of different technique that will help user to search a particular face among the different faces among various samples of faces given.

Keywords: Face Annotation, Content-Based Image Retrieval, Machine Learning, Web Image annotation, Face Detection Etc.



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INTRODUCTION

Different face annotation techniques have been developed There are various algorithms are present for face detection, face retrieval, face annotation. Many face annotation techniques have been developed such as ideal face detector, situation and subject clustering, collaborative face recognition method, semantic web and semantic annotation technique.

A good face detector should consider beyond such constraints and work well for other types of images, for example, those captured by a surveillance camera. To overcome such constraints, a framework is proposed to transform a mother database, originally made for benchmarking face recognition, to daughter datasets that are good for benchmarking face detection. [1] The situation clustering, photos in the collection are divided into a number of situation clusters. Each situation cluster consists of multiple photos that are similar in terms of both capture time and visual characteristics. The primary purpose of situation clustering is to be able to reliably apply visual context information when clustering the subjects that appear in photos belonging to a particular situation cluster and The goal of subject clustering is to group multiple face images that belong to the same subject.[2].This paper, discuss five different face annotation techniques such as Collaborative FR for Face Annotation in OSNs, Clustering-Based Approximation, weak label regularized local coordinate coding technique, correlation mining with relaxed graph embedding technique, Robust Multi-Instance Regression Formulation techniques.This paper, the five techniques given which are useful for face annotation having advantages like accuracy, efficiency but it having some disadvantages such as time consumption, pixel size etc to overcome this problem clustering technique is proposed here.

II) BACKGROUND

A good face detector should consider beyond such constraints and work well for other types of images, for example, those captured by a surveillance camera. To overcome such constraints, a framework is proposed to transform a mother database, originally made for benchmarking face recognition, to daughter datasets that are good for benchmarking face detection. [1]. The collaborative FR face annotation in online social network technique can significantly enhance face annotation accuracy and reduce time consumption and also accuracy and efficiency enhance in online social network. [2]. the situation clustering, photos in the collection are divided into a number of situation clusters. Each situation cluster consists of multiple photos that are similar in terms of both capture time and visual characteristics. The primary purpose of situation clustering is to be able to reliably apply visual context information when clustering the subjects that appear in photos belonging to a particular situation cluster and The goal of subject clustering is to group multiple face images that belong to the same subject.This face annotation method shares identity information among members of an OSN that are connected to each other. The authors also discuss the differences between traditional FR systems and FR systems designed to operate in an OSN.[3].The ability of perceiving human facial expression using

geometrical features without any prior knowledge of person-specific neutral expression, since the neutral expression is usually manually annotated. [4]. Semantic is an evolving development of the World Wide Web, in which the meaning of information on the web is defined; therefore, it is possible for machines to process it.[5]. These are organized as follows. **Section I** Introduction. **Section II** discusses Background. **Section III** discusses previous work. **Section IV** discusses existing methodologies. **Section V** discusses attributes and parameters and how these are affected on mobility models. **Section VI** proposed method and outcome result possible. Finally **section VII** Conclude this review paper.

III) PREVIOUS WORK DONE

In research literature, many face annotation techniques have been studied to provide various annotation schemes and improve the performance less time consumption, accuracy, robust and secure. A good face detector should consider beyond such constraints and work well for other types of images, for example, those captured by a surveillance camera. To overcome such constraints, a framework is proposed to transform a mother database, originally made for benchmarking face recognition, to daughter datasets that are good for benchmarking face detection. Gee-Sern Hsuet al. [1] have proposed A Framework for Making Face Detection Benchmark Databases. Jae Younget al. [2] has proposed Automatic Face Annotation in Personal Photo Collections Using Context-Based Unsupervised Clustering and Face Information Fusion. The collaborative FR face annotation in online social network technique can significantly enhance face annotation accuracy and reduce time consumption and also accuracy and efficiency enhance in online social network. Jae Young Choi et al [3] has proposed Collaborative Face Recognition for Improved Face Annotation in Personal Photo Collections Shared on Online Social Networks. The collaborative use of multiple FR engines that allows improving the accuracy of face annotation for personal photo collection shared on online social network. It improves the accuracy. Anwar Saeed et al. [4] has proposed Frame-Based Facial Expression Recognition Using Geometrical Features. Zheng Xu et al. [5] has proposed Crowd Sensing Based Semantic Annotation of Surveillance Videos.

IV) EXISTING METHODOLOGIES

Many face annotation schemes have been implemented over the last several decades. There are different methodologies that are implemented for different face annotation schemes. ideal face detector, situation and subject clustering, collaborative face recognition method, semantic web and semantic annotation technique and frame level facial recognition method.

Ideal face detector: In this technique a good face detector should consider beyond such constraints and work well for other types of images, for example, those captured by a surveillance camera. To overcome such constraints, a framework is proposed to transform a mother database, originally made for benchmarking face recognition, to daughter datasets that are good for benchmarking face detection. A Framework is use to generate the datasets that

are good for benchmarking face detection using a database meant for benchmarking face recognition. This technique categorised the facial sample from the mother database according to intrinsic parameters[1].

The collaborative FR face annotation in online social network technique can significantly enhance face annotation accuracy and reduce time consumption and also accuracy and efficiency enhance in online social network. This face annotation technique which is useful for large photo collection, same subject can be reliably merge in the clustering called subject clustering. [2]. the situation clustering, photos in the collection are divided into a number of situation clusters. Each situation cluster consists of multiple photos that are similar in terms of both capture time and visual characteristics. The primary purpose of situation clustering is to be able to reliably apply visual context information when clustering the subjects that appear in photos belonging to a particular situation cluster and The goal of subject clustering is to group multiple face images that belong to the same subject. This face annotation method shares identity information among members of an OSN that are connected to each other. The authors also discuss the differences between traditional FR systems and FR systems designed to operate in an OSN. The collaborative use of multiple FR engines that allows improving the accuracy of face annotation for personal photo collection shared on online social network. It improves the accuracy[3].The ability of perceiving human facial expression using geometrical features without any prior knowledge of person-specific neutral expression, since the neutral expression is usually manually annotatedThe geometry and appearance base technics are discussing in this paper this technique adds the neural expression as a new class to expression classifier in the frame based case.[4]. Semantic is an evolving development of the World Wide Web, in which the meaning of information on the web is defined; therefore, it is possible for machines to process it. Image and video events plays an important role in traffic events analysis. These facilities create semantic technologies. Most of the video resources are currently annotated in an isolated way, which means that they lack semantic connections [5].

V) ANALYSIS AND DISCUSSION

A Framework is use to generate the datasets that are good for benchmarking face detection using a database meant for benchmarking face recognition. This technique categorised the facial sample from the mother database according to intrinsic parameters [1].

This face annotation technique which is useful for large photo collection, same subject can be reliably merge in the clustering called subject clustering. [2].

The collaborative use of multiple FR engines that allows improving the accuracy of face annotation for personal photo collection shared on online social network. It improves the accuracy [3].

The geometry and appearance base technics are discussing in this paper this technique add the neural expression as a new class to expression classifier in the frame based case.[4].

Image and video events plays an important role in traffic events analysis. These facilities create semantic technologies.

Most of the video resources are currently annotated in an isolated way, which means that they lack semantic connections [5].

TABLE 1:

annotation scheme	Advantages	Disadvantages
ideal face detector	The datasets generated by the proposed framework a define the performance specification of a face detector in terms of the detection rates on variables with different variation Scopes.	The accuracy in selecting the image is quiet less.
situation and subject clustering	Face images belonging to the same subject can be grouped together with a small clustering error rate.	existing event based clustering methods may not be able to correctly group Multiple face images belonging to the same subject.
collaborative face recognition method	FR engines are selected that are able to correctly recognize query face images.	Single FR classifier may cause unfavorable accuracy results under uncontrolled conditions.
semantic web and semanticannotation technique	The video resources of traffic events are unique and explicitly identified.	Most of the video resources are currently annotated in an isolated way, which means that they lack semantic connections

TABLE 1: Comparisons between different face annotation schemes.

VI) PROPOSED METHODOLOGY

Many face annotation techniques have been used such as ideal face detector, situation and subject clustering, collaborative face recognition method, semantic web and semantic annotation technique, each of which has its own special characteristics. Clustering technique is proposed in this paper. Situation clustering and Space clustering with FR face detection is proposed in this paper.

In situation clustering Capture time and Content are separately used. The images are captured into the same subject by taking into account both capture time and similar visual characteristics. Situation cluster are nothing but the group of cluster. Following figure shows combination of subject clustering and situation clustering.

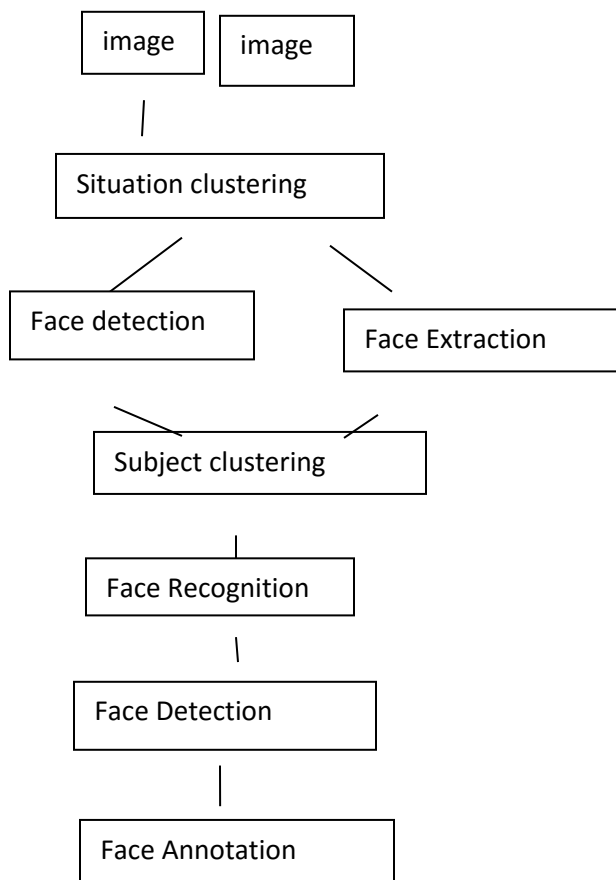


Fig.1: overview of clustering technique

Fig. 1 shows the overview of the clustering technique.

The subject clustering is all face images of same subject are grouped into single cluster and face images of different cluster should be part of another cluster. The face gets recognize and finally face annotation result is obtained.

OUTCOME POSSIBLE RESULT

The proposed method is useful to reduce the time required and enhance the accuracy in face annotation process. By using clustering technique accuracy increases and time for annotation process get reduced.

CONCLUSION

This paper focused on study of various face annotation scheme i.e. Ideal face detector, situation and subject clustering, collaborative face recognition method, semantic web and semantic annotation technique and frame level facial recognition method. but there are some disadvantages of these methods such as unfavourable accuracy implemented to reduce these problems. By using clustering technique accuracy increases and time for annotation process get reduced.

FUTURE SCOPE

From observations the scope is planned to be studied in future work that include to reduce the time require for annotation process and enhance the accuracy in face annotation process.

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