

张领先,陈英义,李道亮,傅泽田,李鑫星.面向视频呼叫中心的农业知识视频分割方法[J].农业工程学报,2014,30(11):188-194

面向视频呼叫中心的农业知识视频分割方法

Video segmentation method for agricultural knowledge video callcenter

投稿时间: 2013-09-25 最后修改时间: 2014-01-16

中文关键词: [信息服务](#) [互联网](#) [农业](#) [知识](#) [呼叫中心](#) [视频](#) [分割](#)

英文关键词: [information services](#) [networks](#) [agriculture](#) [knowledge](#) [call center](#) [video](#) [segmentation](#)

基金项目:山东省自主创新专项"农业信息化综合服务平台应用示范(2012CX90204)"

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中文摘要:

为了推广农业知识,使农民能够通过智能手机有效地获取视频片段,该文面向视频呼叫中心设计了一种农业知识视频分割方法,可将科研机构录制的农业知识视频分割成小的完整的知识单元,并借助视频呼叫中心送达到农民手中。该文研究基于HSV(hue, saturation, value)颜色空间的视频镜头切分方法,通过对比镜头之间的颜色直方图,实现视频镜头切分;结合农业知识讲座类视频"音频为主,视频为辅"的特点,研究视频中音频镜头的切分方法,并在音频镜头的辅助下完成对于视频镜头的聚类,从而提取出视频语义单元,实现对于视频的分割,试验结果表明,该方法的查准率为88.9%,查全率为96.0%。该方法解决了现有镜头聚类方法不适用于农业知识讲座类视频的问题。

英文摘要:

Abstract: Recently, mobile phone has a growing prospect in rural areas. According to relevant survey, the rate of visual acceptance is 83%, while the hearing acceptance is 13%, far below the visual. Video communication is more and more efficiency. Therefore, it can provide an efficiency knowledge obtained way, and it would provide knowledge for farmers by phone in video form. Video call center technology is similar with voice call center, but it increases video playback function. It can play the required video clips, according to user needs. The videos can through mobile phone push to the user. The development of 3G and the upcoming 4G technology lay a good hardware foundation for video call center. Although video phone has not been fully universal at present, but video phone will be like now of voice calls, the rapid popularization in the near future. This will also be extended to video call center lay a good user base. At present, the most important of the video call center promote agricultural knowledge is a ring video sources. The technology research institution has recorded a lot of agricultural knowledge video. These videos which knowledge and professional is very strong, and has very high value of popularization, mostly recorded by a professionals. But the videos were originally a lecture class for TV, Internet or popular science lecture video recording. The playing time, video format, storage capacity is not suitable for the requirements of mobile phone. Because it must be divided the big video into complete knowledge content small video clips, the existing video segmentation methods, mostly artificial participation. Artificial video browsing through fast and rewind down let video segmentation come true. Then manually on the lens annotation, retrieval of this way is not only time-consuming, but also difficult to meet the large agricultural knowledge requirements of video segmentation. In order to solve this problem, a segmentation method based on video call center has designed a kind of agricultural knowledge video in this paper. It can divide the agricultural knowledge into a small complete knowledge unit, and with the help of the video call center sent to the farmers. This article studies the video shot segmentation method which based on HSV color space, and achieves video shot segmentation by comparing the color histogram of camera shot. Combine with the feature "audio-based, supplemented by video" of agriculture class lectures, it researches the audio lens' segmentation in videos, and completes the Clustering for video camera. And then by extracting the video semantic unit, achieving segmentation for video, we can solve the problem that existing shot clustering method doesn't apply for the video for agriculture lectures.

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