Video analytics for compliance and quality monitoring in MoRD skill development centres

Deen Dayal Upadhyaya Grameen Kaushalya Yojana (DDU-GKY) is a placement linked skill development scheme for rural poor youth by the Ministry of Rural Development (MoRD). It is an important component of the National Skill Development Policy. The DDU-GKY skilling ecosystem consists of MoRD; State missions; project implementing agencies or training partners; and technical support agencies. Both generic (soft skills, English and Information Technology) and trade-specific training is offered to youth at various training centers in partnership with the third-party training agencies.

To enable monitoring and assessment of quality of training offered at these centers, these skill development centers are equipped with CCTV cameras for 24X7 surveillance. DDU-GKY is looking forward to use modern technology-based solutions to help ensure compliance and quality standards in the various training centers. They approached us for our help on automated or semi-automated analysis of videos from the surveillance cameras installed at these skill development centers by leveraging state-of-the-art machine learning and computer vision techniques for video analytics. The expected outcome of this project is a software solution and its deployment for automated analysis of security camera footage videos from the skill development centers across India, the results of which will be accessible via a dashboard web application.

We are actively working on building state-ofthe-art machine learning models which, given classroom footages, will help identify name of trainer (face recognition), how late a class started (motion detection), number of students wearing boys / girls uniform (apparel detection, counting), presence / absence of DDU-GKY signage (object detection) and so on. We have already built some prototypes around some of these problems.



Person counting



Apparel detection

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