Piracy technology to revolutionise market research in cinema

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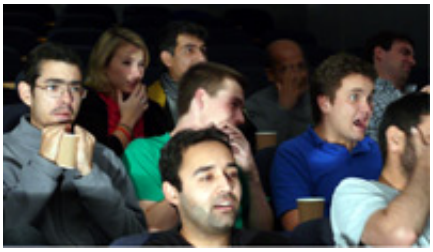

Experts from the University of the West of England, UK, are teaming up with Aralia Systems Ltd, a specialist security company, to take cinema piracy detection technology forward and develop software systems that will revolutionise market research data collection techniques.

Aralia Systems Ltd has been awarded a Knowledge Transfer Partnership (KTP) with UWE's Machine Vision Lab (MVL) worth in excess of £215K to build new capabilities into piracy tracking instruments. The project is supported by a grant of £118K from the Technology Strategy Board and the EPSRC.

Leading the project is the Machine Vision Lab's Dr Abdul Farooq, an expert in instrumentation. He explains, “We plan to build on the capabilities of current technology used in cinemas to detect criminals making pirate copies of films with video cameras.

“We want to devise instruments that will be capable of collecting data that can be used by cinemas to monitor audience reactions to films and adverts and also to gather data about attention and audience movement.

“Using 2D and 3D imaging technology we aim to do this in two ways. Obviously cinema audiences are spread out in large theatre settings so we need to build instruments that can capture data for different purposes. We will use 2D cameras to detect emotion but will also collect movement data through a 3D data measurement that will capture the audience as a whole as a texture.

“Within the cinema industry this tool will feed powerful marketing data that will inform film directors, cinema advertisers and cinemas with useful data about what audiences enjoy and what adverts capture the most attention. By measuring emotion and movement film companies and cinema advertising agencies can learn so much from their audiences that will help to inform creativity and strategy.

“It is envisaged that once the technology has been fine tuned it could be used by market researchers in all kinds of settings, including monitoring reactions to shop window displays."

The partners are currently recruiting a graduate Computer Scientist who will work on the project for its three-year duration.

Professor Melvyn Smith, Director of the Machine Vision Lab, said, “This is one of the largest KTPs that UWE is currently involved with. We have already established a good partnership with Aralia and this builds on previous work and is in addition to a jointly funded PhD due to start January 2011. Aralia and MVL have previously collaborated in the area of scene analysis, object recognition and content management, aimed at improving techniques for extracting and differentiating object features from video sequences (e.g. CCTV footage).”

With more than 15 years in the image processing field, Aralia has built up a strong portfolio of intelligent surveillance and video analytics. Key installations include intelligent solutions in city centres and public transportation networks. With a core strength in collecting and cataloguing data, Aralia is keen to expand its technology in the entertainment and marketing industries.

Aralia has an existing partnership with Pikaia Systems Ltd, a Canadian company who will be responsible for marketing and deploying the final product. Pikaia holds several pending infrared illumination patents that facilitate accurate camera detection and will work in conjunction with both Aralia Systems and UWE on this innovative new technology.

Professor Steve West, UWE Vice-Chancellor said, “The partnership between UWE's world class Machine Vision Lab and Aralia Systems Ltd is an excellent illustration of the applied research that the University is becoming well known for. It is a source of continuing amazement to me that machine vision can be used for so many applications—from health instruments to detect cancer to face recognition systems to non-invasive respiratory tools. The MVL has brought in very significant funding to UWE and has established a number of projects in the U.S. The team now look set to branch out globally following recent presentations at a top level technology conference in Brussels and a successful collaborative conference in India.”

More information: For more detail on the variety of current work by UWE's Machine Vision Lab see www.uwe.ac.uk/cems/research/groups/mvl/index.shtml

Provided by University of the West of England