Personalisation of Networked Video

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Personalised Product Placement, and more ...

Following targeted advertising and product placement, TV and online media needs more personalised methods of engaging viewers by integrating advertising and informational messages into playout content, whether real-time broadcast or on-demand. Future advertising solutions need adaptivity to individuals or on-line groups to respond to the commercial requirements of clients and agencies.

We are currently developing an architecture for commercial personalised placement of externally acquired objects for insertion into source video content which may be specifically produced to accept future object placement. The solution is based on existing standards and supports all video distributions – cable, satellite, TelCo IPTV, Web/OTT, DTTV.

Overview:

The video platform is based on MPEG-4 object-based video utilising scene-graph representation of the video scene (other formats are being investigated). A standard video headend streams the source video to the user (STB, PC, pad, phone, *etc.*). Selected objects are served from third-party libraries and are sent via broadband to the user terminal where they are integrated with the source video to create the personalised program. Using this method the content editorial integrity remains under control of the production team, since they can stipulate (in the metadata) what ranges and characteristics of objects may be admitted for integration into the source video.

Objects are selected via agent-based brokerage which utilises the metadata (MPEG-7) of the source video, the metadata of available objects and the personalization data of the user to select the appropriate object to insert in to the source video. Negotiation procedures are brokered between agencies who aim to have clients' artefacts placed in the video. This can take the form of straight selection based on profile matching. In addition, agencies may compete in an auction. The process can theoretically take place in near-real-time.
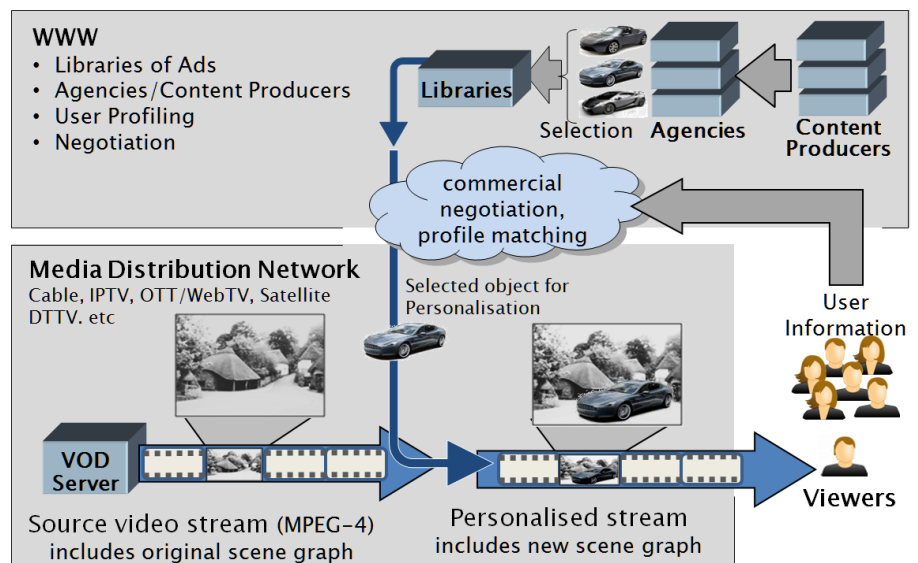
Other Applications:

The process can be applied to various personalization services including training, group-participation in broadcast video playouts, integration of gaming into video playouts. The personalization/brokerage process can also derive content to be streamed to additional user devices (i.e. multi-screening selected apps and content synchronised to the playout), integration of personal/group social network activities into video broadcasts.

Interested in collaboration in research or implementation in this area? Please contact us (emails below)

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