

## HEAD-TRACKING BASED MEDIA SELECTION FOR VIDEO COMMUNICATIONS IN VIRTUAL ENVIRONMENTS

### ABSTRACT

5 A method enabling head-tracking-based media selection for video communications implemented by a system is provided, comprising implementing a 3D virtual environment configured to be accessed by a plurality of client devices, each having a corresponding user graphical representation within the 3D virtual environment, each user graphical representation having a corresponding virtual camera; receiving head tracking metadata of a first client device that comprises 6 degrees of freedom head tracking information generated in response to tracking  
10 movement of key facial landmarks; identifying graphical elements within a field of view of the virtual camera of a second client device, wherein the identified graphical elements comprise the user graphical representation of the first user; and sending, to the second client device, the head tracking metadata and the identified graphical elements.

15 FIG. 1