CLAIMS

1. A computer-implemented method ~~of providing light field data for displaying virtual reality, augmented reality, or mixed reality content, the method~~ comprising:

~~receiving at~~ communicating, by a computing device, ~~from~~ a first light field data to a user device ~~comprising a processor and a display, data indicative of the current state of the user device~~, wherein the ~~user device is displaying virtual reality, augmented reality, or mixed reality content based on~~ first light field data ~~using the~~ is limited to a first volume of space that represents a first plurality of views for display ~~and wherein~~on the user device;

receiving, by the computing device, a sensor data ~~indicative of the current state of~~ associated with the user device ~~includes~~;

predicting a behavior based at least in part from the received sensor data ~~indicative of a display field of view of the display;~~;

generating~~, based on the data indicative of the current state of the user~~ with the computing device~~, further~~ a second light field data based at least in part on the predicted behavior, wherein the second light field data ~~for use in displaying the virtual reality, augmented reality, or mixed reality content at~~ is limited to a second volume of space that is different from the first volume of space and represents a second plurality of views for display on the user device~~, the further light field data comprising a visual content greater than the display field of view of the user~~; and

communicating, by the computing device~~; and~~

~~sending,~~ the ~~further~~second light field data to the user device.

2. The method of claim 1, wherein the ~~data indicative of~~sensor data is generated by at least one sensor integrated into the user device and the behavior is a behavior of the user device.

3. The method of claim 2, wherein the sensor data is at least in part translational sensor data and the predicted behavior is a predicted future position of the user device located within the ~~current state of the user device further includes sensor data associated with the user device~~second volume of space.

~~3.~~ 4. The method of claim 2, wherein the sensor data ~~comprises position sensor data or motion sensor data~~is at least in part rotational sensor data and the predicted behavior is a predicted future viewing angle of the user device within the second volume of space.

~~4.~~ 5. The method of claim 2 ~~or claim 3~~, wherein the ~~user device comprises: a head-mounted device and the~~predicted behavior is based on sensor data ~~represents~~stored from a ~~motion~~prior action of the ~~head-mounted device; or~~user device while the user device was previously in the first volume of space.

6. A computer-implemented method comprising:

receiving, by a ~~wearable~~computing device ~~and the~~ associated with an image processor, a sensor data ~~represents a motion of the wearable~~associated with a user device~~; or a hand-held device and~~, wherein the sensor data ~~represents a motion of the hand-held device.~~

~~5. The method of any one of claims 2~~is in response to ~~4, further comprising:~~

~~prior to receiving the data indicative of the current state of the user device, providing~~a first light field data limited to a first volume of space that represents a first plurality of views for display on the user device~~,~~;

generating, by the ~~first~~ computing device, a second light field data ~~including a~~based on a predicted behavior determined at least in part by the received sensor data, wherein the second light field data is limited to a second volume of space that is different from the first volume of space and represents a second plurality of views for display on the user device; and

communicating, by the computing device, the second light field data to the user device.

7. The method of claim 6, wherein the first light field ~~spatial volume, wherein~~data and the ~~further~~second light field data ~~includes a second light field spatial volume that is adjusted in size based on the sensor data associated with the user device.~~

~~6. The method of any preceding claim, wherein the further light field data comprises data for enabling the user device to display:~~

~~a first field of view for a user in a first viewing perspective and a second field of view for the user in a second viewing perspective different from the first viewing perspective.~~

~~7. The method of any preceding claim, wherein the light field data comprises a~~ each comprise a three-dimensional volume ~~of light field data points.~~

8. ~~The method of claim 7, wherein the three-dimensional volume of light field data points describes~~describing the light flowing in a plurality of directions through a plurality of light field data points.

9. 8. The method of claim ~~7 or claim 8~~6, wherein the ~~three-dimensional volume of light field data points~~sensor data is at least in part translational sensor data and the predicted behavior is a ~~partial volume with respect to a determined direction of motion~~ predicted future position of the user device located within the second volume of space.

10. 9. The method of ~~any preceding~~ claim 6, wherein the ~~light field data~~ sensor data is at least in part rotational sensor data and the predicted behavior is a predicted future viewing angle of the user device within the second volume of space.

10. The method of claim 6, wherein the predicted behavior is based on sensor data stored from a ~~data model for light characterization in a~~ prior action of the user device while the user device was previously in the first volume of space.

11. ~~A system for providing~~The method of claim 6, wherein the predicted behavior is based on an action of a second user device while the user device was in the first volume of space.

12. The method of claim 6, wherein the first volume of space is proximate the user device and the second volume of space is determined by the predicted behavior.

13. The method of claim 6, wherein the second light field data comprises a light field resolution and the light field resolution is determined by the predicted behavior.

14. The method of claim 6, wherein the second light field data ~~for displaying virtual reality, augmented reality, or mixed reality content, the system~~ comprises a directionality with respect to a user device perspective and the directionality is determined by the predicted behavior.

15. The method of claim 6, wherein the second light field data comprises a light field point density and the light field point density is determined by the predicted behavior.

16. The method of claim 6, wherein the user device is a head-worn device, and the predicted behavior is associated with a head position of the user device.

17. The method of claim 6, wherein the predicted behavior is determined at least in part through machine learning associated with previous behavior.

18. The method of claim 6, wherein the predicted behavior is determined to be associated with a user contact with an object.

19. The method of claim 6, wherein the user device is communicatively coupled to a display for presentation of views for display on the user device.

20. The method of claim 6, wherein the sensor data comprises motion sensor data.

21. A system comprising:

~~a~~a computing device associated with an image processor, the computing device configured to store a set of instructions that, when executed, cause the computing device to ~~carry out the method of any preceding claim.~~:

~~12. A computer program, which when executed by a computer, causes the computer to carry out the steps of the method of any of claims 1 to 10.~~receive, by the computing device associated with the image processor, a sensor data associated with a user device, wherein the sensor data is in response to a first light field data limited to a first volume of space that represents a first plurality of views for display on the user device;

generate, by the computing device, a second light field data based on a predicted behavior determined at least in part by the received sensor data, wherein the second light field data is limited to a second volume of space that is different from the first volume of space and represents a second plurality of views for display on the user device; and

communicate, by the computing device, the second light field data to the user device.

22. The system of claim 21, wherein the sensor data is generated by at least one sensor integrated into the user device and the predicted behavior is a behavior of the user device.

23. The system of claim 22, wherein the sensor data is at least in part translational sensor data and the predicted behavior is a predicted future position of the user device located within the second volume of space.

24. The system of claim 22, wherein the sensor data is at least in part rotational sensor data and the predicted behavior is a predicted future viewing angle of the user device within the second volume of space.

25. The system of claim 22, wherein the predicted behavior is based on sensor data stored from a prior action of the user device while the user device was previously in the first volume of space.