

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2023/0232008 A1 Funt et al.

(43) **Pub. Date:**

Jul. 20, 2023

(54) PROGRESSIVE TRANSMISSION OF DETAILED IMAGE DATA VIA VIDEO COMPRESSION OF SUCCESSIVE SUBSAMPLED FRAMES

(71) Applicant: META PLATFORMS TECHNOLOGIES LLC, Menlo Park,

CA (US)

(72) Inventors: **Brian Funt**, West Vancouver (CA): Behnam Bastani, Palo Alto, CA (US);

Curtis Buckoll, Vancouver (CA)

(21) Appl. No.: 17/576,250

(22) Filed: Jan. 14, 2022

Publication Classification

(51) **Int. Cl.** (2014.01)H04N 19/132 H04N 19/172 (2014.01)G06T 9/00 (2006.01)H04N 19/85 (2014.01)H04N 19/136 (2014.01)H04N 19/182 (2014.01)H04N 19/42 (2014.01)

(52) U.S. Cl.

CPC H04N 19/132 (2014.11); H04N 19/172 (2014.11); G06T 9/00 (2013.01); H04N 19/85 (2014.11); H04N 19/136 (2014.11); H04N 19/182 (2014.11); H04N 19/42 (2014.11)

(57)ABSTRACT

In one embodiment, the disclosure provides a computerimplemented method for Progressive Subsampled Transmission of image data. In one embodiment, a source computer may: generate a first down-sampled frame by sampling an input image according to a first sampling pattern; generate a first encoded down-sampled frame; transmit the first encoded down-sampled frame to a recipient device to cause the recipient device to display/use a first output frame generated by decoding and up-sampling the first encoded down-sampled frame; generate a second down-sampled frame by sampling the input image according to a second sampling pattern; generate a second encoded down-sampled frame; and transmit the second encoded down-sampled frame to the recipient device to cause the recipient device to display/use a second output frame generated based on the first encoded down-sampled frame and the second encoded down-sampled frame and in accordance with the first sampling pattern and the second sampling pattern.



