

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To:
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HUAHE IP LIMITED

PCT

WRITTEN OPINION OF THE
 INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year) 17 June 2020	
Applicant's or agent's file reference HDP190033PCT	FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/CN2020/079222	International filing date (day/month/year) 13 March 2020
Priority date (day/month/year) 22 March 2019	
International Patent Classification (IPC) or both national classification and IPC H04N 13/302(2018.01)i; H04N 5/265(2006.01)i; H04N 21/431(2011.01)i; H04N 21/485(2011.01)i	
Applicant YUTOU TECHNOLOGY (HANGZHOU) CO. LTD.	

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA/ National Intellectual Property Administration, PRC China 6, Xitucheng Rd., Jimen Bridge, Haidian District, Beijing 100088	Date of completion of this opinion 10 June 2020	Authorized officer GONG, Jinling
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Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of:
 - the international application in the language in which it was filed.
 - a translation of the international application into _____ which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b)).
2. This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a)).
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
 - a. forming part of the international application as filed:
 - in the form of an Annex C/ST.25 text file.
 - on paper or in the form of an image file.
 - b. furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
 - c. furnished subsequent to the international filing date for the purposes of international search only:
 - in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
 - on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
4. In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

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Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	<u>1-18</u>	YES
	Claims	<u>None</u>	NO
Inventive step (IS)	Claims	<u>None</u>	YES
	Claims	<u>1-18</u>	NO
Industrial applicability (IA)	Claims	<u>1-18</u>	YES
	Claims	<u>None</u>	NO

2. Citations and explanations :

- [1] D1: US10168788B2
- [2] D2: US2019075266A1
- [3] 1) Novel (PCT Article 33(2)) and Inventive Step (PCT Article 33(3))
- [4] D1 discloses (see description column 1 line 44 to column 10 line 2): the AR headset includes its own computer, and the technique includes pairing the AR headset with the computing device to establish a communication pathway between the two. The AR headset 110 presents the screen content 156 on a surface, such as floating in empty space. The screen content 156 represents graphical information that would normally be used for rendering content on a primary monitor. The AR headset 110 sends the item represented by local AR control 440 to the computing device 120, e.g., over the communication pathway 142. As a result, the item represented by local AR control 440 appears within the projected image 420, where it can be viewed publicly by anyone in view of the projected image. The portal 330 can thus be regarded as having two layers: a first layer 330a, which the computing device 120 renders on display 130, and a second layer 330b, which the AR headset 110 renders on AR display 110a.
- [5] Claims 1 and 9 differ from D1 in that: (1) collecting a camera picture through a camera disposed on the AR glasses; performing picture synthesis based on the camera picture and the virtual UI to generate a synthetic result picture; (2) sending the synthetic result picture to the extended display. Claims 1-16 are novel.
- [6] The features of difference (1) are disclosed by D2. D2 discloses (see description paragraphs [0050]-[0051]) a display apparatus. The electronic apparatus 200 has an image capture or pickup function for an actual real-world environment. The electronic apparatus 200 mixes the captured actual real-world environment and a virtual UI.
- [7] The features of difference (2) are well known knowledge for the person skilled in the art. Therefore claims 1 and 9 can not be considered as involving an inventive step.
- [8] Some of the additional features of claims 3,4,7,8,11,12,15,16 are disclosed by D1 (see description column 1 line 44 to column 10 line 2), and the other additional features of claims 3, 4,7,8,11,12,15,16 are well known knowledge for the person skilled in the art.
- [9] The additional features of claims 2, 5-6, 10, 13-14 are well known knowledge to the person skilled in the art. So claims 2-8, 10-16 can not be considered as involving an inventive step.
- [10] Claim 17, a controller, comprising a memory and a processor, the memory stores computer programs, and the programs implement the steps of the method. These features are well known knowledge for the person skilled in the art. When claims 1-8 are new and not involving an inventive step, claim 17 is new and can not involving an inventive step.
- [11] Claim 18, a computer-readable storage medium. For storing computer programs, the programs implement the steps of the method. These features are well known knowledge for the person skilled in the art. When claims 1-8 are new and not involving an inventive step. Claim 18 is new and can not involving an inventive step.
- [12] 2) Industrial applicability (PCT Article 33(4))

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Box No. V

**Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step and industrial applicability;
citations and explanations supporting such statement**

[13] Claims 1-18 meet the requirements of PCT Article 33(4).