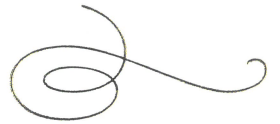
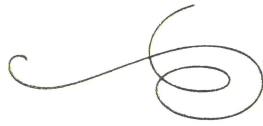


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The Director

of the United States Patent and Trademark Office has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

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Patent

grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, products made by that process, for the term set forth in 35 U.S.C. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). See the Maintenance Fee Notice on the inside of the cover.



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(12) **United States Patent**
Taniguchi et al.

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(45) **Date of Patent:** **Oct. 5, 2021**

(54) **MEDICAL INFORMATION VIRTUAL REALITY SERVER SYSTEM, MEDICAL INFORMATION VIRTUAL REALITY PROGRAM, MEDICAL INFORMATION VIRTUAL REALITY SYSTEM, METHOD OF CREATING MEDICAL INFORMATION VIRTUAL REALITY DATA, AND MEDICAL INFORMATION VIRTUAL REALITY DATA**

(52) **U.S. Cl.**
CPC **G16H 30/40** (2018.01); **G06T 7/0014** (2013.01); **G06T 7/11** (2017.01); **G06T 2207/10081** (2013.01); **G06T 2207/10088** (2013.01)

(58) **Field of Classification Search**
CPC **G16H 30/40**; **G06T 7/11**; **G06T 7/0014**; **G06T 2207/10081**; **G06T 2207/10088**
See application file for complete search history.

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 33 days.

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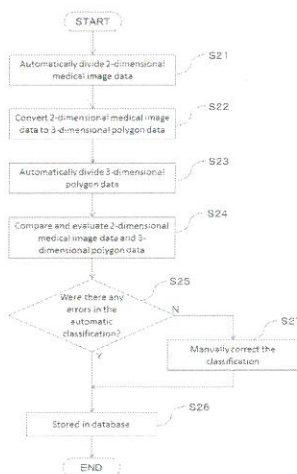
(51) **Int. Cl.**
G16H 30/00 (2018.01)
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(57) **ABSTRACT**

A server system facilitates communication between users using three-dimensional data in a virtual reality space, facilitates communication relating to data between joint owners thereof, facilitates protection of privacy and handling of data relating to persons whose data has been acquired, and improves the usability of the data. This server system includes: a means for inputting medical image data; a means for dividing the medical image data into segments for each characteristic part, including living body parts, implants, medical devices, index markers and wearable objects; a means for converting the medical image data into three-dimensional polygon data having segments; a means for tagging the three-dimensional polygon data or the segments; a means for associating the three-dimensional polygon data with an arbitrarily defined world coordinate posi-

(Continued)



tion; and a means for storing the three-dimensional polygon data in a database and outputting the three-dimensional polygon data on the basis of the tags.

16 Claims, 15 Drawing Sheets

- (51) **Int. Cl.**
G06T 7/11 (2017.01)
G06T 7/00 (2017.01)

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