CLAIMS

1. A semantic communication method, wherein the method comprises:

sending first semantic data, wherein the first semantic data is determined from first data; and

receiving first indication information, wherein

the first indication information comprises first information, and the first information indicates not to retransmit the first semantic data;

the first indication information comprises second information, and the second information is used to request semantic data other than the first semantic data in semantic data determined from the first data; or

the first indication information comprises third information, and the third information indicates to retransmit the first semantic data.

2. The method according to claim 1, wherein the first data comprises raw data;

the first data comprises semantic data extracted from the raw data;

the first data comprises semantic data that is extracted from the raw data and that is obtained through semantic filtering; or

the first data comprises semantic data obtained from another apparatus.

3. The method according to claim 1 or 2, wherein the method further comprises:

generating first semantic check data, wherein the first semantic check data is used to perform semantic check on the first semantic data; and

sending the first semantic check data.

4. The method according to claim 3, wherein the first semantic data comprises data of one or more first semantic layers, and the data of the one or more first semantic layers is data of the one or more first semantic layers that is output by a first model when the first data is used as input data of the first model.

5. The method according to claim 4, wherein the first semantic check data comprises data of one or more second semantic layers; the first semantic check data comprises label information of data of one or more second semantic layers; or the first semantic check data comprises data of one or more third semantic layers; and

the one or more second semantic layers are semantic layers higher than the one or more first semantic layers, and the data of the one or more third semantic layers is data of the one or more third semantic layers that is output by a second model when the first data is used as input data of the second model.

6. The method according to any one of claims 1 to 5, wherein the method further comprises:

generating first data check data, wherein the first data check data is used to perform data

check on the first semantic data; and

sending the first data check data.

7. The method according to claim 6, wherein the first semantic data comprises a plurality of groups of semantic data, the first data check data comprises a plurality of groups of data check data, the plurality of groups of semantic data and the plurality of groups of data check data are in a one-to-one correspondence, and each of the plurality of groups of data check data is used to perform data check on one group of semantic data corresponding to the group of data check data.

8. The method according to claim 7, wherein each of the plurality of groups of semantic data comprises data of one output channel in a convolutional neural network, and different groups of semantic data correspond to data of different output channels; or

each of the plurality of groups of semantic data comprises output data corresponding to one token in a transformer, and different groups of semantic data correspond to output data corresponding to different tokens.

9. A semantic communication method, wherein the method comprises:

receiving first semantic data, wherein the first semantic data is determined from first data;

performing semantic check on the first semantic data; and

sending first indication information, wherein

when the semantic check on the first semantic data succeeds, the first indication information comprises first information, and the first information indicates not to retransmit the first semantic data; or

when the semantic check on the first semantic data fails, performing data check on the first semantic data, wherein when the data check on the first semantic data succeeds, the first indication information comprises second information, and the second information is used to request semantic data other than the first semantic data in semantic data determined from the first data; or

when the semantic check on the first semantic data fails, performing data check on the first semantic data, wherein when the data check on the first semantic data fails, the first indication information comprises third information, and the third information indicates to retransmit the first semantic data.

10. The method according to claim 9, wherein the first data comprises raw data;

the first data comprises semantic data extracted from the raw data;

the first data comprises semantic data that is extracted from the raw data and that is obtained through semantic filtering; or

the first data comprises semantic data obtained from another apparatus.

11. The method according to claim 9 or 10, wherein the method further comprises:

receiving first semantic check data; and

performing semantic check on the first semantic data comprises:

generating second semantic check data based on the first semantic data;

determining whether the first semantic check data is consistent with the second semantic check data; and

if the first semantic check data is consistent with the second semantic check data, determining that the semantic check on the first semantic data succeeds; or

if the first semantic check data is inconsistent with the second semantic check data, determining that the semantic check on the first semantic data fails.

12. The method according to claim 11, wherein the first semantic data comprises data of one or more first semantic layers, and the data of the one or more first semantic layers is data of the one or more first semantic layers that is output by a first model when the first data is used as input data of the first model.

13. The method according to claim 12, wherein the first semantic check data comprises data of one or more second semantic layers; the first semantic check data comprises label information of data of the one or more second semantic layers; or the first semantic check data comprises data of one or more third semantic layers; and

the one or more second semantic layers are semantic layers higher than the one or more first semantic layers, and the data of the one or more third semantic layers is data of the one or more third semantic layers that is output by a second model when the first data is used as input data of the second model.

14. The method according to claim 9 or 10, wherein performing semantic check on the first semantic data comprises:

determining a correctness probability of the first semantic data; and

if the correctness probability is greater than a preset threshold, determining that the semantic check on the first semantic data succeeds; or

if the correctness probability is less than or equal to a preset threshold, determining that the semantic check on the first semantic data fails.

15. The method according to any one of claims 9 to 14, wherein the method further comprises:

receiving first data check data; and

performing data check on the first semantic data comprises:

performing data check on the first semantic data based on the first data check data.

16. The method according to claim 15, wherein the first semantic data comprises a plurality of groups of semantic data, the first data check data comprises a plurality of groups of data check data, and the plurality of groups of semantic data and the plurality of groups of data check data are in a one-to-one correspondence; and

performing data check on the first semantic data based on the first data check data comprises:

performing data check on each of the plurality of groups of semantic data by using one group of data check data corresponding to each group of semantic data, wherein

when data check on a first part of the plurality of groups of semantic data succeeds, and data check on a second part of the plurality of groups of semantic data fails, the third information indicates to retransmit the second part of the groups of semantic data.

17. An apparatus, wherein the apparatus comprises a processor; and

the processor is configured to execute a computer program or computer instructions in a memory to perform the method according to any one of claims 1 to 8; or

the processor is configured to execute a computer program or computer instructions in a memory to perform the method according to any one of claims 9 to 16.

18. A computer-readable storage medium, wherein the computer-readable storage medium stores a computer program, and when the computer program is executed by an apparatus, the apparatus is enabled to perform the method according to any one of claims 1 to 8, or the apparatus is enabled to perform the method according to any one of claims 9 to 16.

19. A computer program product, wherein when the computer program product is run on a computer, the computer is enabled to perform the method according to any one of claims 1 to 8, or the computer is enabled to perform the method according to any one of claims 9 to 16.