

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A method for providing assistance regarding a user-performed gesture, comprising:
 - receiving data captured by a capture device, the data corresponding to a user motion or pose;
 - analyzing the data to produce an output corresponding to whether the data corresponds to input recognized by a system;
 - determining from the output that it is unlikely that the user correctly performed a user motion or pose that invokes the input recognized by the system;
 - determining from the output that the user likely intended to perform the user motion or pose that invokes the input recognized by the system; ~~and~~
 - ~~providing assistance regarding the user motion or pose that invokes the input recognized by the system~~
 - adjusting the output to have a new value, the new value being more indicative of invoking the input recognized by the system than the old value is indicative of invoking the input recognized by the system; and
 - sending the adjusted output to an application that is configured to process the input recognized by the system.
- 2.-3. (Cancelled)
4. (Currently Amended) The method of claim [[2]] 1, further comprising:
 - determining that the output may be adjusted before adjusting the output;
 - receiving second data captured by the capture device, the second data corresponding to a second user motion or pose;
 - analyzing the second data to produce second output corresponding to whether the second data corresponds to a second input recognized by a system;

determining from the second output that it is unlikely that the user correctly performed a user motion or pose that invokes the second input recognized by the system;

determining from the second output that the user likely intended to perform the a user motion or pose that invokes the input recognized by the system;

providing assistance regarding the a user motion or pose that invokes the input recognized by the system; and

in response to determining that the second output may not be adjusted, sending the second output to the application without adjusting the second output.

5. (Previously Presented) The method of claim 1, wherein the output comprises a confidence level that the user correctly performed the user motion or pose that invokes the input recognized by the system.

6. (Original) The method of claim 5, wherein it is unlikely that the user correctly performed the system-recognized gesture when the confidence level is below a threshold.

7. (Cancelled)

8. (Currently Amended) The method of claim 1, further comprising ~~wherein providing assistance comprises:~~

suspending an application corresponding to the input recognized by the system in response to determining from the output that it is unlikely that the user correctly performed a user motion or pose that invokes the input recognized by the system.

9. (Currently Amended) The method of claim 1, wherein the output comprises a value, and ~~wherein providing assistance comprises~~ further comprising:

displaying the value of the output to the user on a display device.

10. (Currently Amended) The method of claim 1, ~~wherein providing assistance comprises~~ further comprising:

displaying a representation of the user motion or pose corresponding to the data and a demonstration of the user motion or pose that invokes the input recognized by the system.

11. (Currently Amended) The method of claim 10, further comprising:

displaying a difference between the user motion or pose corresponding to the data and the demonstration of the user motion or pose that invokes the input recognized by the system.

12.-13. (Cancelled)

14. (Currently Amended) A system for providing assistance regarding a user-performed gesture, comprising:

a processor; and

a memory communicatively coupled to the processor when the system is operational, the memory bearing processor-executable instructions that, when executed on the processor, cause the system to at least:

receive data captured by a camera, the data corresponding to a user motion or pose;

analyze the data to produce an output corresponding to whether the data corresponds to input recognized by a system;

determine from the output that it is unlikely that the user correctly performed a user motion or pose that invokes the input recognized by the system; [[and]]

determine from the output that the user likely intended to perform the user motion or pose that invokes the input recognized by the system; ~~and~~

~~provide assistance regarding user motion or pose that invokes the input recognized by the system~~

adjust the output to have a new value, the new value being more indicative of invoking the input recognized by the system than the old value is indicative of invoking the input recognized by the system; and

send the adjusted output to an application that is configured to process the input recognized by the system.

15.-17. (Cancelled)

18. (Previously Presented) The system of claim 14, wherein the output comprises a confidence level the user correctly performed the user motion or pose that invokes the input recognized by the system.

19. (Original) The system of claim 18, wherein it is unlikely that the user correctly performed the system-recognized gesture when the confidence level is below a threshold.

20. (Currently Amended) A computer readable storage medium, comprising computer readable instructions that when executed on a computer, cause the ~~processor~~ computer to perform operations comprising:

receiving data captured by a depth camera, the data corresponding to a user motion or pose;

analyzing the data to produce an output corresponding to whether the data corresponds to input recognized by a system;

determining from the output that it is unlikely that the user correctly performed a user motion or pose that invokes the input recognized by the system;

determining from the output that the user likely intended to perform the user motion or pose that invokes the input recognized by the system; ~~and~~

~~displaying assistance on performing the user motion or pose that invokes the input recognized by the system on a display device~~

adjusting the output to have a new value, the new value being more indicative of invoking the input recognized by the system than the old value is indicative of invoking the input recognized by the system; and

sending the adjusted output to an application that is configured to process the input recognized by the system.

21. (New) The computer readable storage medium of claim 20, further comprising computer readable instructions that when executed on the computer cause the computer to perform operations comprising:

determining that the output may be adjusted before adjusting the output;

receiving second data captured by the capture device, the second data corresponding to a second user motion or pose;

analyzing the second data to produce second output corresponding to whether the second data corresponds to a second input recognized by a system;

determining from the second output that it is unlikely that the user correctly performed a user motion or pose that invokes the second input recognized by the system;

determining from the second output that the user likely intended to perform the a user motion or pose that invokes the input recognized by the system;

providing assistance regarding the a user motion or pose that invokes the input recognized by the system; and

in response to determining that the second output may not be adjusted, sending the second output to the application without adjusting the second output.

22. (New) The computer readable storage medium of claim 20, wherein the output comprises a confidence level that the user correctly performed the user motion or pose that invokes the input recognized by the system.

23. (New) The computer readable storage medium of claim 22, wherein it is unlikely that the user correctly performed the system-recognized gesture when the confidence level is below a threshold.

24. (New) The computer readable storage medium of claim 20, further comprising computer readable instructions that when executed on the computer cause the computer to perform operations comprising:

suspending an application corresponding to the input recognized by the system in response to determining from the output that it is unlikely that the user correctly performed a user motion or pose that invokes the input recognized by the system.

25. (New) The computer readable storage medium of claim 20, wherein the output comprises a value, and further comprising:

displaying the value of the output to the user on a display device.

26. (New) The computer readable storage medium of claim 20, further comprising computer readable instructions that when executed on the computer cause the computer to perform operations comprising:

displaying a representation of the user motion or pose corresponding to the data and a demonstration of the user motion or pose that invokes the input recognized by the system.

27. (New) The computer readable storage medium of claim 26, further comprising computer readable instructions that when executed on the computer cause the computer to perform operations comprising:

displaying a difference between the user motion or pose corresponding to the data and the demonstration of the user motion or pose that invokes the input recognized by the system.

REMARKS

Claims 1-20 are pending in the application. Claims 1-20 stand rejected. Applicants request further review and examination in view of the claimed amendments.

Telephonic Examiner Interview

On November 22, 2011, Examiner Truc Chuong and the undersigned conducted a telephonic interview. The parties agreed that the subject matter found in currently amended claims 4 or 7 (incorporating the limitations of the claims from which they depend) is allowable. Applicants thank the Examiner for the interview. Applicants submit that all of the claims patentably define over the references of record for the reasons stated below.

Claim Objections

The Office objects to **claim 4** for reciting “that that.” Applicants amend that recitation to recite, “that,” and submit that this action overcomes the present objection. Applicants request that the Office reconsider the rejection.

Claim Rejections – 35 USC § 102

Claims 1-5, 7-18 and 20 stand rejected under 35 U.S.C. 102(b) as being anticipated by Burns (hereinafter “Burns,” U.S. Patent No. 5,904,484)

Applicants amend **claim 1** to recite:

receiving data captured by a capture device, the data corresponding to a user motion or pose;

analyzing the data to produce an output corresponding to whether the data corresponds to input recognized by a system;

determining from the output that it is unlikely that the user correctly performed a user motion or pose that invokes the input recognized by the system;

determining from the output that the user likely intended to perform the user motion or pose that invokes the input recognized by the system; and

providing assistance regarding the user motion or pose that invokes the input recognized by the system.

Support for this amendment is found in the original disclosure in at least the Specification, at [0107]. Applicants submit that Burns fails to teach at least this amended language of claim 1. Specifically, applicants submit that Burns fails to teach:

analyzing the data to produce an output corresponding to whether the data corresponds to input recognized by a system

Burns teaches capturing images of user movement and overlaying it on a depiction of how to properly perform a movement (e.g. a golf swing). Burns, at Abstract, and FIGs. 2D-F. Burns does not teach that this user movement is analyzed to possibly be used as input to a system. Rather, this movement is merely captured and then displayed. No movement that the user makes – be it waving his arms, jumping up and down, or perfectly swinging a golf club – will be processed by Burns’ system as input.

For at least these reasons, applicants submit that Burns fails to anticipate the invention recited in claim 1, or in dependent **claims 2 or 4-13**. Applicants request that the Office reconsider the rejections.

Applicants amend **claim 2** to recite, “adjusting the output to have a new value, the new value being more indicative of invoking the input recognized by the system than the old value is indicative of invoking the input recognized by the system.” Support for this amendment is found in the original disclosure in at least the Specification, at [0167]-[0168]. Applicants submit that Burns fails to disclose at least this amended language of claim 2 for at least the reason that Burns fails to teach the claimed “output,” and request that the Office reconsider the rejection.

Applicants cancel **claim 3** without prejudice. Applicants submit that this action renders moot the rejection of claim 3, and request that the Office reconsider the rejection.

Applicants amend **claim 4**. Support for this amendment is found in the original disclosure in at least the Specification, at [0170]-[0171] and original claim 1. Applicants submit that Burns fails to anticipate the invention recited in claim 4, because Burns fails to disclose at least both “determining that the output may be adjusted before adjusting the output,” and “in response to determining that the second output may not be adjusted, sending the second output to

the application without adjusting the second output.” Applicants request that the Office reconsider the rejection.

Applicants amend **claim 5** to recite, “the output comprises a confidence level that the user correctly performed the user motion or pose that invokes the input recognized by the system.” Support for this amendment is found in the original disclosure in at least the Specification, at [0161]. Applicants submit that Burns fails to teach at least this amended language of claim 5. The Office cites to Burns’ FIGs. 1A-2F and 3 (among other portions of the reference) as teaching the claimed output. Representative Burns FIG. 2D depicts:

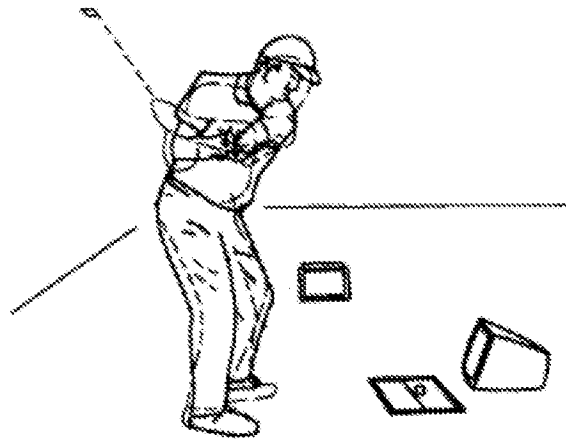


FIG. 2D

As can be seen from FIG. 2D, and its associated detailed description, Burns’ output is an image of the user displayed on a display device. That is not the claimed, “*confidence level* that the user correctly performed the user motion or pose that invokes the input recognized by the system.” For at least this reason, applicants submit that Burns fails to anticipate the invention recited in claim 5, and request that the Office reconsider the rejection.

Applicants amend **claim 7** to recite, “the filter determining how the data is analyzed to determine whether the data corresponds to invoking the input recognized by the system.” Support for this amendment is found in the original disclosure in at least the Specification, at [0150]-[0151]. The Office states that a previously presented recitation of “a filter” is taught by Burns as follows:

the student can choose a random template (first filter), or he/she can be suggested by the system an appropriate template (second filter) based on his/her performance, e.g. col. 10 lines 1-25

Applicants submit that Burns teaching of a random template fails to disclosed the claimed, “the filter determining how the data is analyzed to determine whether the data corresponds to invoking the input recognized by the system.” As such, applicants submit that Burns fails to anticipate the invention recited in claim 7, and request that the Office reconsider the rejection.

Applicants amend independent **claim 14** in a similar manner as they have amended independent claim 1. For reasons similar to those analyzed above with respect to claim 1, *mutatis mutandis*, applicants submit that the invention recited in claim 14 is likewise not anticipated by Burns, nor are dependent **claims 15-18**. Applicants request that the Office kireconsider the rejections.

Applicants amend **claim 16** in a similar manner as they have amended claim 2. For at least those reasons stated with respect to claim 2, *mutatis mutandis*, applicants submit that Burns fails to anticipate the invention recited in claim 16, and request that the Office reconsider the rejection.

Applicants amend **claim 17** in a similar manner as they have amended claim 5. For at least those reasons stated with respect to claim 5, *mutatis mutandis*, applicants submit that Burns fails to anticipate the invention recited in claim 17, and request that the Office reconsider the rejection.

Applicants amend independent **claim 20** in a similar manner as they have amended independent claim 1. For reasons similar to those analyzed above with respect to claim 1, *mutatis mutandis*, applicants submit that the invention recited in claim 14 is likewise not anticipated by Burns, and request that the Office reconsider the rejection.

Claim Rejections – 35 USC § 103

Claims 6 and 19 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Burns in view of Mengoli (hereinafter “Mengoli U.S. Patent No. 6,6514,081 B1). Claim 6 depends from independent claim 1, and claim 19 depends from claim 14, which stand rejected as anticipated by Burns. Mengoli fails to cure the deficiencies of Burns as applied to claims 1 and

DOCKET NO.: 326457.01/MSFT-6394
Application No.: 12/474,453
Office Action Dated: September 6, 2011

PATENT

14. For at least this reason, applicants submit that the combination of Burns and Mengoli fails to render obvious the invention recited in claims 6 or 19. Applicants request that the Office reconsider the rejections.

CONCLUSION

In the view of the foregoing amendments and remarks, Applicants respectfully submit that the present application is in condition for allowance. Reconsideration of the application and an early Notice of Allowance are respectfully requested. In the event that the Examiner cannot allow the application for any reason, the Examiner is encouraged to contact Applicants' representative.

Date: January 11, 2012

/Peter Trahms-Neudorfer/
Peter Trahms-Neudorfer
Registration No. 59,282

Woodcock Washburn LLP
Cira Centre
2929 Arch Street, 12th Floor
Philadelphia, PA 19104-2891
Telephone: (215) 568-3100
Facsimile: (215) 568-3439