**Claims**

1. A computerized method for aiding a human subject in the development of physical, mental, and/or emotional skills, the method comprising:

sensing first subject-internal signals, the first subject-internal signals comprising physiologic signals generated internal to the subject's body;

exposing the subject to a stressor session including at least one of: (a) an emotional stressor comprising visual image or scene and/or audio information capable of producing a stressed subject emotional state, and (b) a physical stressor comprising a subject body condition or stimulus capable of producing a stressed subject physical state;

sensing second subject-internal signals during and after the stressor session, the second subject-internal signals generated internal to the subject's body;

terminating exposure of the subject to the stressor session;

determining:

(i-a) a mind state recovery profile comprising a mind state recovery time interval that a stressed subject mind state exhibits as it returns toward a first target percentage of a baseline subject mind state, wherein the baseline subject mind state is determined using first neural activity signals from the sensed first subject-internal signals and the stressed subject mind state is determined using second neural activity signals from the sensed second subject-internal signals,

(ii-a) a body state recovery profile comprising a body state recovery time interval that a stressed subject body state exhibits as it returns toward a first target percentage of a baseline subject body state, wherein the baseline subject body state is determined using the sensed first subject-internal signals including first muscle activity signals and the stressed subject body state is determined

using the sensed second subject-internal signals including second muscle activity signals, and

(iii-a) an emotional state recovery profile comprising an emotional state recovery time interval that a stressed subject emotional state exhibits as it returns toward a first target percentage of a baseline subject emotional state, wherein the baseline subject emotional state is determined based on first heart rate variability signals from the sensed first subject-internal signals and the stressed subject emotional state is determined based on second heart rate variability signals from the sensed second subject-internal signals; and

determining or estimating a subject health state based on the mind state recovery profile, the body state recovery profile, and the emotional state recovery profile.

2. The method of claim 1, wherein the first and second neural activity signals comprise electroencephalography (EEG) signals, and the first and second muscle activity signals comprise electromyography (EMG) signals.

3. The method of claim 1 or 2, wherein determining the subject health state comprises determining whether at least one of the mind state recovery profile, the body state recovery profile, and the emotional state recovery profile decreases over time following multiple subject physical skill development sessions, wherein each subject physical skill development session comprises presenting functional skill development activities to the subject simultaneous with presenting current mind state biofeedback and current body state feedback to the subject.

4. The method of claim 1, wherein the mind state recovery profile is determined by the mind state recovery time interval, the body state recovery profile is determined by the body

state recovery time interval, and the emotional state recovery profile is determined by the emotional state recovery time interval.

5. The method of claim 1, wherein determining or estimating the subject health state further comprises

comparing at least one of the mind state recovery profile, the body state recovery profile, and the emotional state recovery profile of the subject to at least one of a mind state recovery profile, a body state recovery profile, and an emotional state recovery profile of a healthy subject reference;

relative to the healthy subject reference, identifying in the subject at least one delay in at least one of: (i-b) a mind state recovery time interval across which the stressed subject mind state returns to within a first target percentage of the baseline subject mind state; (ii-b) a body state recovery time interval across which the stressed subject body state returns to within a second target percentage of the baseline subject body state, and (iii-b) an emotional state recovery time interval across which the stressed subject emotional state returns to a third target percentage of the baseline subject emotional state;

relative to the healthy subject reference, identifying at least one irregular pattern in the at least one of the mind state recovery profile, the body state recovery profile, and the emotional state recovery profile of the subject; and

correlating the identified at least one delay or irregular pattern to an unhealthy state of the subject.

6. The method of claim 5, further comprises sensing levels of subject-external signals, the subject-external signals generated external to the subject’s body and including an ambient temperature level, an ambient relative humidity level, and an ambient noise level.

7. The method of claim 6, wherein each of the ambient temperature, ambient humidity, and ambient noise is sensed by way of at least one apparatus worn on the subject's body, wherein the at least one apparatus carries an ambient temperature sensor, an ambient humidity sensor, and an ambient noise sensor.

8. A computerized method for aiding a human subject in the development of physical, mental, and/or emotional skills, the method comprising:

sensing first subject-internal signals, the first subject-internal signals comprising physiologic signals generated internal to the subject's body;

exposing the subject to a stressor session including at least one of: (a) an emotional stressor comprising visual image or scene and/or audio information capable of producing a stressed subject emotional state, and (b) a physical stressor comprising a subject body condition or stimulus capable of producing a stressed subject physical state;

sensing second subject-internal signals during and after the stressor session, the second subject-internal signals generated internal to the subject's body;

terminating exposure of the subject to the stressor session;

determining:

(i-a) a mind state recovery profile comprising a mind state recovery time interval that a stressed subject mind state exhibits as it returns toward a first target percentage of a baseline subject mind state, wherein the baseline subject mind state is determined using first neural activity signals from the sensed first subject-internal signals and the stressed subject mind state is determined using second neural activity signals from the sensed second subject-internal signals,

(ii-a) a body state recovery profile comprising a body state recovery time interval that a stressed subject body state exhibits as it returns toward a first target percentage of a baseline subject body state, wherein the baseline subject body state is determined using the sensed first subject-internal signals including first muscle activity signals and the stressed subject body state is determined using the sensed second subject-internal signals including second muscle activity signals, and

(iii-a) an emotional state recovery profile comprising an emotional state recovery time interval that a stressed subject emotional state exhibits as it returns toward a first target percentage of a baseline subject emotional state, wherein the baseline subject emotional state is determined based on first heart rate variability signals from the sensed first subject-internal signals and the stressed subject emotional state is determined based on second heart rate variability signals from the sensed second subject-internal signals;

determining or estimating a subject health state based on the mind state recovery profile, the body state recovery profile, and the emotional state recovery profile;

sensing levels of subject-external signals, the subject-external signals generated external to the subject's body and including an ambient temperature level, an ambient relative humidity level, and an ambient noise level;

determining subject performance and/or subject outcome measures corresponding to each physical skill development session; and

performing environmental analytics, wherein performing the environmental signal analytics include

correlating the levels of the sensed subject-external signals with the subject performance and/or subject outcome measures, and

determining whether subject performance and/or subject outcome measures across different physical skill development sessions was adversely affected by the level of one or more subject-external signals exceeding a target or threshold level or falling outside of a target or threshold range.

9. The method of claim 8, wherein the subject-external signals further comprise at least one of an ambient light level, an ambient atmospheric pressure or altitude level, an ambient magnetic field intensity level, and an ambient electromagnetic signal level within at least one electromagnetic signal frequency band.

10. The method of claim 8, further comprising automatically transferring by way of cellular network communication the determined subject performance measures and/or subject outcome measures to a set of servers, without subject initiation, management, and/or acknowledgment.

11. The method of any one of claims 8 - 10, wherein determining the subject outcome measures comprises:

capturing image data and/or audio data representing a current subject outcome resulting from subject performance or attempted performance of a functional development activity sequence; and

comparing the received image data and/or audio data with target image data and/or audio data, respectively, to determine an extent to which the current subject outcome matches a target outcome for the functional development activity sequence.

12. A system for aiding a subject in the development of physical, mental, and/or emotional skills, the system comprising:

a set of subject-internal signal sensing devices wearable by the subject and configured for sensing signals generated internal to the subject's body;

a set of subject-external signal sensing devices configured for sensing signals generated external to the subject's body;

a local computing unit having a processing unit and a memory storing program instructions executable by the processing unit;

a display device configured for presenting biofeedback information to the subject simultaneous with presenting functional development activity sequences to the subject;

a cellular network communication unit configured for communicating data corresponding to sensed subject-internal signals and sensed subject-external signals to at least one server by way of at least one cellular network; and

wherein the processing unit is configured to

receive first subject-internal signals from the set of subject-internal signal sensing devices,

receive second subject-internal signals from the set of subject-internal signal sensing devices during and after exposure to a stressor session configured to produce at least one of: (a) a stressed subject emotional state, and (b) a stressed subject physical state,

determine a mind state recovery profile comprising a mind state recovery time interval that a stressed subject mind state exhibits as it returns toward a first target percentage of a baseline subject mind state, wherein the baseline subject mind state is determined using first neural activity signals from the first subject-internal signals and the stressed subject mind state is determined using second neural activity signals from the second subject-internal signals,

determine a body state recovery profile comprising a body state recovery time interval that a stressed subject body state exhibits as it returns toward a first target percentage of a baseline subject body state, wherein the baseline subject body state is determined using the first subject-internal signals including first muscle activity signals and the stressed subject body state is determined using the second subject-internal signals including second muscle activity signals,

determine an emotional state recovery profile comprising an emotional state recovery time interval that a stressed subject emotional state exhibits as it returns toward a first target percentage of a baseline subject emotional state, wherein the baseline subject emotional state is determined based on first heart rate variability signals from the first subject-internal signals and the stressed subject emotional state is determined based on second heart rate variability signals from the second subject-internal signals,

determining or estimating a subject health state based on the mind state recovery profile, the body state recovery profile, and the emotional state recovery profile,

receiving subject-external signals from the set of subject-external signal sensing devices, wherein the subject-external signals include an ambient temperature level, an ambient relative humidity level, and an ambient noise level,

determining subject performance and/or subject outcome measures corresponding to each physical skill development session, and

performing environmental analytics, wherein performing the environmental signal analytics include

correlating levels of the received subject-external signals with the subject performance and/or subject outcome measures, and

determining whether the subject performance and/or subject outcome measures were adversely affected by the level of one or more of the received subject-external signals exceeding a target or threshold level or falling outside of a target or threshold range.

13. The system of claim 12, wherein the subject has a physically impaired body part, wherein the set of subject-internal signal sensing devices is configured for sensing EMG signals generated by muscles within the impaired body part, and wherein presentation of the functional development activity sequences comprises presenting visual information showing usage of an unimpaired body part corresponding to the physically impaired body part in a mirror image manner during subject viewing of the visual information.

14. The system of claim 12 or 13, wherein the system includes a local wireless network communication and authentication unit coupled to the local computing unit, and wherein each subject-internal signal sensing device is configured for authenticated wireless network communication of sensed subject-internal signals to the local computing unit by way of the local wireless network communication and authentication unit.

15. The system of claim 12, wherein the set of subject-internal signal sensing devices comprises a head mountable sensing apparatus configured for sensing subject electroencephalography (EEG) signals.

16. The system of claim 15, wherein the set of subject-internal signal sensing devices further comprises at least one of: a forearm mountable sensing apparatus configured for sensing subject electromyography (EMG) signals generated by particular subject forearm and hand muscles, a neck mountable sensing apparatus configured for sensing EMG signals generated by particular subject neck muscles, a chest mountable sensing apparatus configured for sensing subject EMG signals generated by particular subject upper torso muscles, a waist / hip mountable apparatus configured for sensing EMG signals generated by particular subject abdominal, waist, hip, and/or gluteal region muscles; and an upper leg mountable sensing apparatus configured for sensing subject EMG signals generated by subject upper leg muscles; and a lower leg mountable apparatus configured for sensing EMG signals generated by particular subject lower leg muscles.

17. The system of claim 12, wherein the set of subject-external sensing devices comprises

a set of accelerometers and/or gyroscopes carried by the set of subject-internal signal sensing devices;

an ambient temperature sensor;

an ambient humidity sensor; and

an ambient noise sensor.

18. The system of claim 12, wherein determining or estimating the subject health state further comprises

comparing at least one of the mind state recovery profile, the body state recovery profile, and the emotional state recovery profile of the subject to at least one of a mind state

recovery profile, a body state recovery profile, and an emotional state recovery profile of a healthy subject reference;

relative to the healthy subject reference, identifying in the subject at least one delay in at least one of: (i-b) a mind state recovery time interval across which the stressed subject mind state returns to within a first target percentage of the baseline subject mind state; (ii-b) a body state recovery time interval across which the stressed subject body state returns to within a second target percentage of the baseline subject body state, and (iii-b) an emotional state recovery time interval across which the stressed subject emotional state returns to a third target percentage of the baseline subject emotional state; and

correlating the identified at least one delay to an unhealthy state of the subject.

19. The system of claim 18, wherein determining or estimating the subject health state further comprises

relative to the healthy subject reference, identifying at least one irregular pattern in the at least one of the mind state recovery profile, the body state recovery profile, and the emotional state recovery profile of the subject; and

correlating the identified at least one irregular pattern to an unhealthy state of the subject.

20. The system of claim 12, wherein determining the subject health state further comprises determining whether the at least one of the mind state recovery profile, the body state recovery profile, and the emotional state recovery profile decreases over time following multiple subject physical skill development sessions, wherein each subject physical skill development session comprises presenting functional skill development activities to the subject simultaneous with presenting current mind state biofeedback and current body state feedback to the subject.