

CLAIMS

1. A system for real time ophthalmic biometric based information communication comprising:

an energized ophthalmic device including a skirt surrounding an annular insert device and an optical zone, wherein the annular insert device includes:

a sensing means, wherein the sensing means measures from a user's eye at least one of a pupil characteristic in concert with an ambient light level, an intraocular pressure, a rapid eye movement characteristic, a muscle/nerve signaling, a user's pulse, a user's blood pressure, a user's body temperature, and a user's blood chemical characteristics;

an energization device; and

a communication means;

a smart device, wherein the smart device comprises a gps device to determine a location of the user and the smart device is paired in a communication protocol with the energized ophthalmic device and gathers personalized data about the user other than the biometric of the user;

wherein the smart device correlates at least a biometric value originating from the energized ophthalmic device through the communication means with the personalized data about the user;

a communication hub, wherein the smart device is paired in a communication protocol with the communication hub and wherein the hub receives communication containing at least the biometric value originating from the energized ophthalmic device and the personalized data about the user from the smart device, and transmits the communication to a content server;

the content server, wherein the content server processes the communication containing at least the biometric value from the energized ophthalmic device and the personalized data about the user and determines a message to communicate to the user;

wherein the processing of the communication containing at least the biometric value from the energized ophthalmic device and the personalized data about the user, including the location of the user influences content of the message; and

a feedback element, wherein the message is communicated to the user with the feedback element.

2. The system of Claim 1, wherein the message comprises an advertisement.
3. The system of any one of claims 1 and 2, wherein the smart device is at least one of a smart phone and a smart watch.
4. The system of any one of Claims 1 to 3, wherein the sensing means measures a concentration of a bioavailable chemical.
5. The system of any one of Claims 1 to 4, wherein the sensing means measures an oxygen concentration in the blood of the user.
6. The system of any one of Claims 1 to 5, wherein the smart device comprises an accelerometer.
7. The system of any one of Claims 1 to 6, wherein the feedback element includes a display.
8. The system of any one of Claims 1 to 7, wherein the feedback element is located in the energized ophthalmic device.
9. The system of any one of Claims 1 to 7, wherein the feedback element includes a vibrational transducer.
10. A real time method to communicate a message from an energized ophthalmic device, the method comprising:
 - obtaining an energized ophthalmic device including a skirt surrounding an annular insert device, and an optical zone, wherein the annular insert device includes a sensing means is capable of sensing from a user's eye at least one of a pupil characteristic in concert with an ambient light level, an intraocular pressure, a rapid

eye movement characteristic, a muscle/nerve signaling, a user's pulse, a user's blood pressure, a user's body temperature, and a user's blood chemical characteristics, utilizing the energized ophthalmic device to perform the biometric measurement;

communicating a biometric data result of the user obtained by the biometric measurement to a smart device;

wherein the smart device comprises a gps device to determine a user location and the smart device gathers personalized data about the user other than the biometric of the user and correlates the biometric data result with the personalized data about the user and wherein the smart device is paired in communication protocol with a communication hub;

receiving the biometric data result and the personalized data about the user at a content server through the communication hub;

processing the biometric data result with the personalized data about the user, and determining a message to communicate to the user, at the content server;

wherein the processing of the biometric data result and the personalized data about the user influences content of the message;

receiving the message based upon the communication of the biometric data result obtained by the biometric measurement and the personalized data about the user;

tailoring the message based upon the date value corresponding to the user location; and

communicating the message to the user with a feedback device.

11. The method of Claims 10, wherein the message comprises an advertisement.

12. The method of any one of Claims 10 to 11, wherein the smart device comprises at least one of a smart phone and a smart watch.