[0029] In a second aspect, the CICP is used as a method for predicting a future contextual environmental setting for the user of the connected device.

[0029a] According to an embodiment, there is provided a computer-implemented process for providing predictably useful, contextually intelligent information to a first user as said first user moves from a first user current context to a first user new context comprising: providing a first user mobile communication device; associating said device with said first user; providing a server that is in communication with said device; providing a relationship management system that resides in said server and populating said relationship management system with past historical data on said first user's behavior; providing sensor input data from said first user mobile communication device to said server when said first user is in said first user current context; said sensor input data including: data corresponding to a current location of said first user mobile communication device and at least data corresponding to one or more of the groups consisting of: current activity of said first user, mental state of said first user, physical state of said first user, mode of travel of said first user, direction of travel of said first user, speed of travel of said first user, level of engagement of said first user in said first user current context, identity of one or more persons in addition to said first user and who are nearby said first user in said first user current context, identity of at least one mobile device other than said first user mobile communication device and that is nearby said first user mobile communication device in said first user current context; providing said sensor input data from said first user mobile communication device to create acquired first user current data; providing said sensor input data from said first user mobile communication device to create acquired first user current data; capturing, by said first user mobile communication device through an image recognition application, real-time image data to create first user captured real-time image data for said first user current context; generating first user current

contextual data for said first user from said acquired first user current data and from said first user captured real-time image data for said first user current context; gathering said first user current contextual data to create said first user current contextual data corresponding to the first user's current context; uploading said first user current contextual data corresponding to said first user's current context via a wide area mobile communication network to said server; matching said first user current contextual data corresponding to said first user's current context with said first user said past historical data; combining and processing in the relationship management system the first user current contextual data and said first user said past historical data to define a message relevant to the first user while the first user is in the current context; generating feedback data for said first user that is contextually relevant to said first user's current context and that is predictably useful to said first user as said first user enters a new context to form first user useful feedback data; and, transmitting to and displaying on said first user mobile communication device said first user useful feedback data to provide said contextually intelligent mobile communication.

BRIEF DESCRIPTION OF DRAWINGS

[0030] The foregoing aspects and the attendant advantages of the present systems and processes will become more readily appreciated by reference to the following detailed description, when taken in conjunction with the accompanying drawings, wherein:

[0031] Figure 1 is a schematic overview of a preferred embodiment eco-system architecture including a context or virtual bubble;

[0032] Figure 2 is a schematic representation of the Figure 1 showing preferred exemplary connected devices;

[0033] Figure 3 is a listing of exemplary, preferred categories of variables and information that may be collected and used to determine current context for the Figure 1 context bubble;

[0034] Figure 4 is a listing of exemplary, preferred categories of variables and types of information that may be collected and used to define the current context and create current content awareness;

[0035] Figure 5 is a listing of exemplary, preferred categories of variables and types of information that may be collected and used to determine past behavior and action;

[0036] Figure 6 is a listing of exemplary, preferred variables and questions that may be posted, collected and used to determine the predictions and what to present next;

[0037] Figure 7 is a listing of exemplary content, experiences and information that may be gathered, stored and used on the content and experiences database of the Figure 1 embodiment;

[0029] In a second aspect, the CICP is used as a method for predicting a future contextual environmental setting for the user of the connected device.

[0029a] According to an embodiment, there is provided a computer-implemented process for contextually intelligent mobile communication comprising: providing a first user mobile communication device; associating said device with a first user; providing first user historical, demographic and environmental data to a cloud based, contextually intelligent server to create first user acquired data; providing known image data to said server; capturing by said first user mobile communication device through an image recognition application, real-time image data to create first user captured real-time image data; generating first user current contextual data for said first user with said first user mobile communication device, said first user current contextual data including said known image data and said first user captured real-time image data; gathering said first user current contextual data on said first user mobile communication device to create said first user current contextual data corresponding to the first user's current context; uploading said first user current contextual data corresponding to the first user's current context via a wide area mobile communication network to a said contextually intelligent server; matching said first user current contextual data corresponding to the first user's current context with said first user historical, demographic and environmental data; generating feedback data for said first user that is contextually relevant to said user's current context and that is predictably useful to said first user as said first user enters a new context to form first user useful feedback data; and, transmitting to and displaying on said device said first user useful feedback data to provide said contextually intelligent mobile communication.

[0029b] According to another embodiment, there is provided a process for communicating with mobile devices in a contextually intelligent way comprising: providing n mobile communication devices, where n is an integer and each of the n mobile communication

devices is associated with an nth user; providing m current context input devices, where m is an integer, said m current context input devices comprise any of the following types of devices: augmented reality glasses; augmented reality displays; interactive displays; vending machines with interactive displays; fixtures and product displays that incorporate interactive and connected devices that include image recognition capability; headphones; sensors that transmit real-time sounds; sensors that transmit real-time images; sensors that transmit current data about the physical condition of the nth user; and, devices that provide any of the nth user's current situation, location, activity, actions, motion, speed of travel, direction of travel, time/day/date, identity of the nth user, mental state of the nth user, level of engagement of the nth user, identity of other ones of the n users in the proximity of the nth user and identity of other ones of the n mobile communication devices in the proximity of the nth user; operatively connecting one or more said m current context input devices to one or more of said n mobile communication devices; generating nth user current context awareness data and providing said nth user current context awareness data to said nth selected mobile communications device; providing current context awareness definitions data; providing historical data relating to the nth user; providing demographic data relating to the nth user; providing content and experiences database in a cloud based server; said content and experiences database containing data comprising any of types of content as follows: offers, video files, audio files, augmentations, 3D models, games, coupons and advice; connecting each of the n mobile communication devices to said cloud based server; providing a mobile customer relationship management system; connecting said relationship management system to said content and experiences database server, to said cloud based server and to said n mobile communication devices; and, in said mobile customer relationship management system; comparing current contextual data associated with each nth user to data in said content and experiences database server while each nth user is in a specific context to

determine whether current contextual data for an nth user matches with content and experiences in said content and experiences database server; delivering to each nth device information that is relevant to each nth user while said nth user is in the specific context and when current contextual data for said nth user matches with content and experiences in said content and experiences database server; and, updating the information that is relevant to each nth user as each nth user moves to another context to provide updated relevant information, presenting said updated relevant information for each nth user to said nth user's mobile device and to any other connected device or equipment that is relevant to the nth user's then specific context to thereby create and update an nth user sphere of influence context bubble for each of the n users, whereby each of said n users may engage in contextually intelligent communication.

[0029c] According to another embodiment, there is provided a process of creating a cloud based, contextually intelligent, electronic eco-system comprising: acquiring with a sensor resident on a user mobile communication device current context data for the user to define the user's current context data; acquiring environmental data defining an environment which the user is in at a current time to define the user's current environmental data; and, combining the user's current context data with the user's current environmental data; reporting the user's current context data and current environmental data to a communication platform residing in the cloud; populating a relationship management system residing in the cloud with historical demographic data for the user; combining and processing in the relationship management system the user's context data, current environmental data and historical demographic data to define a message relevant to the user while the first user is in the current context; and, communicating back to the user mobile communication device the message.

BRIEF DESCRIPTION OF DRAWINGS

[0030] The foregoing aspects and the attendant advantages of the present systems and processes will become more readily appreciated by reference to the following detailed description, when taken in conjunction with the accompanying drawings, wherein:

[0031] Figure 1 is a schematic overview of a preferred embodiment eco-system architecture including a context or virtual bubble;

[0032] Figure 2 is a schematic representation of the Figure 1 showing preferred exemplary connected devices;

[0033] Figure 3 is a listing of exemplary, preferred categories of variables and information that may be collected and used to determine current context for the Figure 1 context bubble;

[0034] Figure 4 is a listing of exemplary, preferred categories of variables and types of information that may be collected and used to define the current context and create current content awareness;

[0035] Figure 5 is a listing of exemplary, preferred categories of variables and types of information that may be collected and used to determine past behavior and action;

[0036] Figure 6 is a listing of exemplary, preferred variables and questions that may be posted, collected and used to determine the predictions and what to present next;

[0037] Figure 7 is a listing of exemplary content, experiences and information that may be gathered, stored and used on the content and experiences database of the Figure 1 embodiment;

WHAT IS CLAIMED IS:

1. A computer-implemented process for providing predictably useful, contextually intelligent information to a first user as said first user moves from a first user current context to a first user new context ~~mobile communication~~ comprising:

providing a first user mobile communication device;

associating said device with said ~~a~~ first user;

providing a server that is in communication with said device;

providing a relationship management system that resides in said server and populating said relationship management system with past ~~first user~~ historical~~, demographic and environmental~~ data on said first user's behavior ~~to a cloud based, contextually intelligent server to create first user acquired data~~;

providing sensor input data from said first user mobile communication device to said server when said first user is in said first user current context;

said sensor input data including:

data corresponding to a current location of said first user mobile communication device and at least data corresponding to one or more of the groups consisting of:

current activity of said first user, mental state of said first user, physical state of said first user, mode of travel of said first user, direction of travel of said first user, speed of travel of said first user, level of engagement of said first user in said first user current context, identity of one or more persons in addition to said first user and who are nearby said first user in said first user current context, identity of at least one mobile device other than said first user mobile communication device and that is nearby said first user mobile communication device in said first user current context;

providing said sensor input data from said first user mobile communication device to create acquired first user current data;

providing said sensor input data from said first user mobile communication device to create acquired first user current data;

~~providing known image data to said server;~~

capturing, by said first user mobile communication device through an image recognition application, real-time image data to create first user captured real-time image data for said first user current context;

generating first user current contextual data for said first user ~~with said first user mobile communication device,~~ from said acquired first user current data and from ~~said first user current contextual data including said~~

~~known image data and~~ said first user captured real-time image data for said first user current context;

gathering said first user current contextual data ~~on said first user mobile communication device~~ to create said first user current contextual data corresponding to the first user's current context;

uploading said first user current contextual data corresponding to ~~the~~ said first user's current context via a wide area mobile communication network to said ~~contextually intelligent~~ server;

matching said first user current contextual data corresponding to ~~the~~ said first user's current context with said first user said past historical ~~demographic and environmental~~ data;

combining and processing in the relationship management system the first user current contextual data and said first user said past historical data to define a message relevant to the first user while the first user is in the current context;

generating feedback data for said first user that is contextually relevant to said first user's current context and that is predictably useful to said first user as said first user enters a new context to form first user useful feedback data; and,

transmitting to and displaying on said first user mobile communication device said first user useful feedback data to provide said contextually intelligent mobile communication.

2. The process of claim 1 wherein said first user ~~acquired data, said first user~~ current contextual data corresponding to said first user's current context and said feedback data are communicated between said first user mobile communication device and said ~~cloud based contextually intelligent~~server.

3. The process of claim 1 further comprising:

providing at least one additional mobile communication devices;

associating each ~~of said~~ additional mobile communication devic~~es~~ with an additional user; and,

wherein each ~~of said~~ additional mobile communication device~~s~~ is able to communicate with each other additional mobile communication device, with said first user mobile communication device and with said ~~cloud based, contextually intelligent~~ server.

4. The process of claim 1 further comprising:

providing mobile communication equipment;

providing at least one additional mobile communication device~~s~~;

associating each ~~of said~~ additional mobile communication device~~s~~ with a user; and,

wherein each ~~of said~~ additional mobile communication device~~s~~ is able to communicate with each other additional mobile communication device; with said first user mobile communication device, with said mobile communication equipment and with said ~~cloud based, contextually intelligent~~ server.

5. The process of claim 1 further creating a sphere of influence context bubble for n + 1 users, where n is an integer, by:

providing an additional mobile communication devices for each of said n additional users, each additional user having a current context;

associating each ~~of~~ said additional mobile communication devices with each corresponding one of said n additional users ~~an additional user~~;

generating current contextual data for each one of said n additional users by; ~~additional user; and,~~

populating said relationship management system with historical and demographic data for each one of said n additional users;

providing sensor input data from each of said n additional user's mobile communication device to said server for each of said n additional user when said n additional user's communication device is in proximity to said first user's mobile communication device;

said sensor input data including:

data corresponding to a current location of each one of said n additional user mobile communication devices and at least data corresponding to one or more of the group consisting of:

current activity of each one of said n additional users, mental state of each one of said n additional users, physical state of each one of said n additional users, mode of travel of each one of said n additional users, direction of travel of each one of said n additional users, speed of travel of each one of said n additional users, level of engagement of each one of said n additional users in said first user current

context, identity of one or more persons in addition to said first user and who are nearby said first user in said first user current context, identity of at least one mobile device other than said first user mobile communication device and that is nearby said first user mobile communication device in said first user current context;

providing sensor input data from each one of said n additional mobile communication devices to create acquired user current data for each one of said additional users;

capturing, by each of said n additional user mobile communication devices through an image recognition application, real-time image data to create n additional user captured real-time image data for each one of said n additional user's current context;

generating for each of said n additional users current contextual data from said acquired n additional user current data and from said n additional user captured real-time image data for each one of said n additional user's current context;

gathering said current contextual data for each of said n additional users to create for each of said additional user's current contextual data corresponding to each of said n additional user's current context;

uploading said n additional user's current contextual data corresponding to each of said n additional user's current context via a wide area mobile communication network to said server;

establishing communication among said first user mobile communication device, said ~~cloud based, contextually intelligent~~ server and any of said n additional mobile communication devices when said first user mobile communication device is in proximity to any of said n additional communication devices.

6. The process of claim 1 further comprising:

creating a sphere of influence context bubble for n + 1 users, where n is an integer, by:

providing additional mobile communication devices for n additional users, each additional user having a current context;

associating each of said n additional mobile communication devices with ~~an~~ at least one of the n additional users;

generating current contextual data for each one of the n additional users; and,

establishing communication among any of said n +1 ~~first~~user mobile communication devices, said ~~cloud based, contextually intelligent~~ server and any of said n additional mobile communication devices when any of said n + 1 communication devices is in proximity to any other of said n + 1 communication devices.

7. The process of claim 1 further ~~A process for communicating with mobile devices in a contextually intelligent way~~ comprising:

~~providing n mobile communication devices, where n is an integer and each of the n mobile communication devices is associated with an nth user;~~

providing m current context input devices, where m is an integer, said m current context input devices ~~comprise~~ comprising any of the following types of devices:

augmented reality glasses;

augmented reality displays;

interactive displays;

vending machines with interactive displays;

fixtures and product displays that incorporate interactive and connected devices that include image recognition capability;

headphones;

sensors that transmit real-time sounds;

sensors that transmit real-time images;

sensors that transmit current data about the physical condition of the ~~nth~~ first user; and,

devices that provide any of the ~~nth~~ first user's acquired first user current data ~~current situation, location, activity, actions, motion, speed of travel, direction of travel, time/day/date, identity of the nth user, mental state of the nth user, level of engagement of the nth user, identity of other ones of the n users in the proximity of the nth user and identity~~

~~of other ones of the n mobile communication devices in the proximity of the nth user~~;

operatively connecting one or more said m current context input devices to one or more of said n mobile communication devices;

generating nth user current context awareness data and providing said nth user current context awareness data to said nth selected mobile communications device;

providing current context awareness definitions data;

providing historical data relating to the nth user;

providing demographic data relating to the nth user;

providing content and experiences database in a cloud based server;

said content and experiences database containing data comprising any of types of content as follows: offers, video files, audio files, augmentations, 3D models, games, coupons and advice;

connecting each of the n mobile communication devices to said cloud based server;

providing a mobile customer relationship management system;

connecting said relationship management system to said content and experiences database server, to said cloud based server and to said n mobile communication devices; and,

in said mobile customer relationship management system;

~~comparing current contextual data associated with each nth user to data in said content and experiences database server while each nth user is in a specific context to determine whether current contextual data for an nth user matches with content and experiences in said content and experiences database server;~~

~~delivering to each nth device information that is relevant to each nth user while said nth user is in the specific context and when current contextual data for said nth user matches with content and experiences in said content and experiences database server; and,~~

~~updating the information that is relevant to each nth user as each nth user moves to another context to provide updated relevant information,~~

~~presenting said updated relevant information for each nth user to said nth user's mobile device and to any other connected device or equipment that is relevant to the nth user's then specific context~~

~~to thereby create and update an nth user sphere of influence context bubble for each of the n users, whereby,~~

~~each of said n users may engage in contextually intelligent communication~~.

~~8. A process of creating a cloud based, contextually intelligent, electronic eco-system comprising: acquiring with a sensor resident on a user mobile communication device current context data for the user to define the user's current context data; acquiring environmental data defining an environment which the user is in at a current time to define the user's current environmental data; and,~~

~~combining the user's current context data with the user's current environmental data;~~

~~reporting the user's current context data and current environmental data to a communication platform residing in the cloud;~~

~~populating a relationship management system residing in the cloud with historical demographic data for the user;~~

~~combining and processing in the relationship management system the user's context data, current environmental data and historical demographic data to define a message relevant to the user while the first user is in the current context; and, communicating back to the user mobile communication device the message.~~

~~9~~8. The process of claim 1 ~~8~~ wherein the first user mobile communication device comprises any of a smart phone, a tablet, augmented reality glasses, contact lenses, personal communication hubs, connected clothing, connected jewelry, connected shoes, connected accessories and any embedded communication device.

~~10~~9. The process of claim 1 ~~8~~ wherein the first user mobile communication device includes a sensor that comprises any device capable of sensing and providing to the first user mobile communication device data representative of any of a location, a time, an activity, a speed of travel, a direction of travel, an anxiety level, a social media status, a gender, a relationship status, an ambient sound, an ambient light level, an air quality ~~or other environmental~~ aspect in proximity to the first user.

~~11~~10. The process of claim ~~8~~ 1 wherein the first user mobile communication device includes a sensor that comprises any device capable of image recognition and of providing to the first user mobile communication device data representative of the image recognized.

~~12~~11. The process of claim ~~8~~ 1 wherein the first user mobile communication device includes a sensor that comprises an image recognition system capable of capturing and providing to the first user communication device data

representative of any of a product, image, ad, video, TV broadcast, billboard, poster, and other display with which the first user is interacting.

~~13~~12. The process of claim ~~8~~ 1 wherein the first user mobile communication device includes a sensor that comprises any device capable of providing augmented reality data to the first user mobile communication device.

~~14~~13. The process of claim ~~8~~ 1 wherein said contextual data comprises data representative of any of activity, location, mental state, physical state, mode direction of travel, speed of travel and level of engagement of the first user in an activity.

~~15~~14.The process of claim ~~8~~ 1 wherein said contextual data comprises data representative of any of the first user's surrounding environment, a nearby other person's surrounding environment and a nearby other mobile device's surrounding environment.

~~16~~15. The process of claim ~~15~~ 14 wherein said nearby other mobile device comprises any of other connected devices, equipment, vehicles, tools, computers, displays, point of sale systems, ticketing systems, inventory systems, video and audio capture sensors, ball(s), object and other tracking systems and other sensor system(s), devices and equipment that have capability to communicate via a wide area network or any other methodology directly to one or more end users through a back-end cloud based network connected to a cellular or WiFi network or any future method of communication capable of such communication.

~~17~~16. The process of claim ~~8~~ 1 further comprising updating said first user's current contextual data and said first user's ~~current~~ environmental data as the first user enters ~~a~~ said new ~~next~~ context, and so on as the first user continues to move from ~~the~~ said new ~~next~~ context to another context.

~~18~~17. The process of claim ~~8~~ 1 wherein said relationship management system further includes content comprising any of offers, videos, audio files, augmentations, 3D models, games, coupons and advice.

~~19. The process of claim 8 wherein said combining and processing in the relationship management system the first user's context data, current environmental data and historical demographic data to define a message relevant to the first user while the first user is in the current context further includes matching identity information of said first user~~

~~20~~18. The process of claim ~~8~~ 1 wherein said message ~~includes content relevant to the first user's current context~~ comprises any of feedback information, experiences, recommendations, offers, coupons, advice, tactile feedback, visual and audio representations, augmented and audio/visual displays.