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(54) **AEROSOL PROVISION DEVICE COMPRISING A COMMUNICATION MODULE FOR COMMUNICATING TO ANOTHER AEROSOL PROVISION DEVICE**

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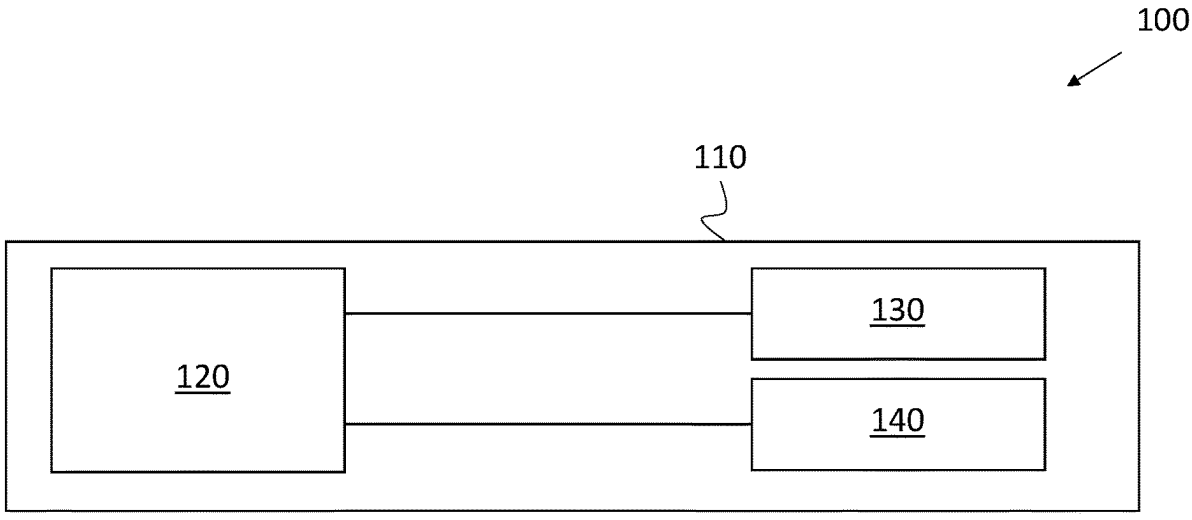
(57) **ABSTRACT**

There is provided an aerosol provision device comprising: control circuitry for controlling an activation state of the aerosol provision device; a detector arranged to detect a property associated with the aerosol provision device, aerosol generating material, in use arranged in the aerosol provision device, or user and provide a signal to the control circuitry; and, a communication module for communicating to at least one other aerosol provision device, wherein the control circuitry is arranged to send a signal, via the communication module, to the at least one other aerosol provision device based on the detected property reaching a predetermined value.



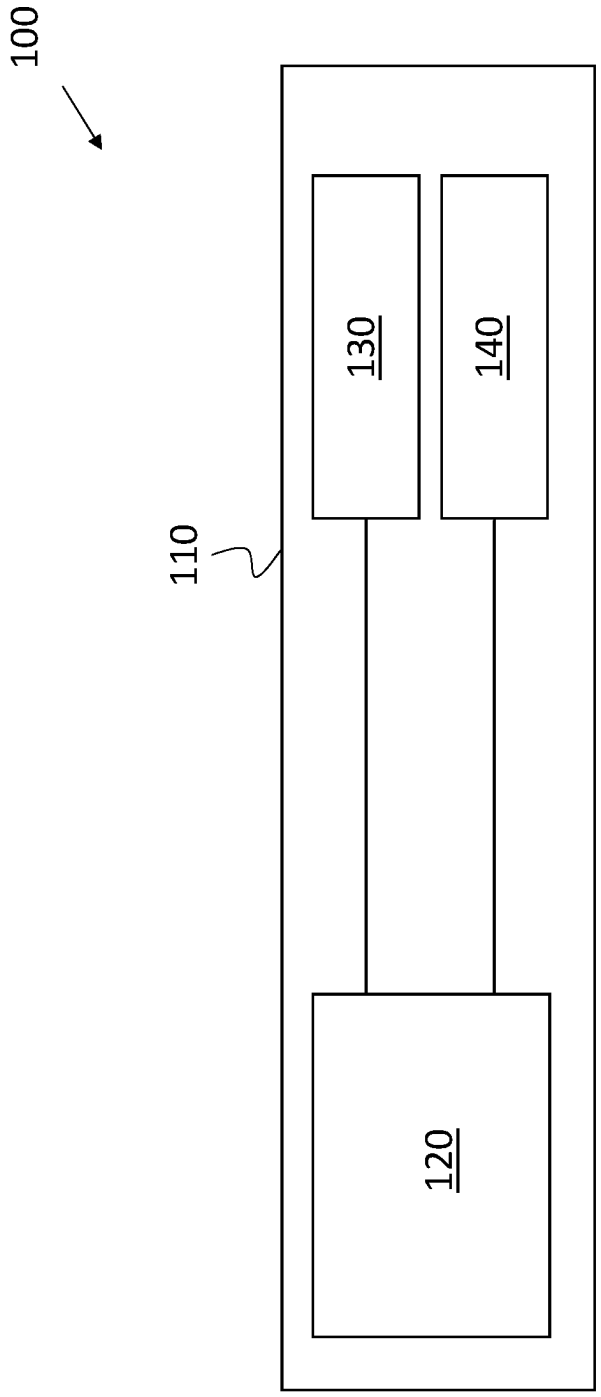


Figure 1

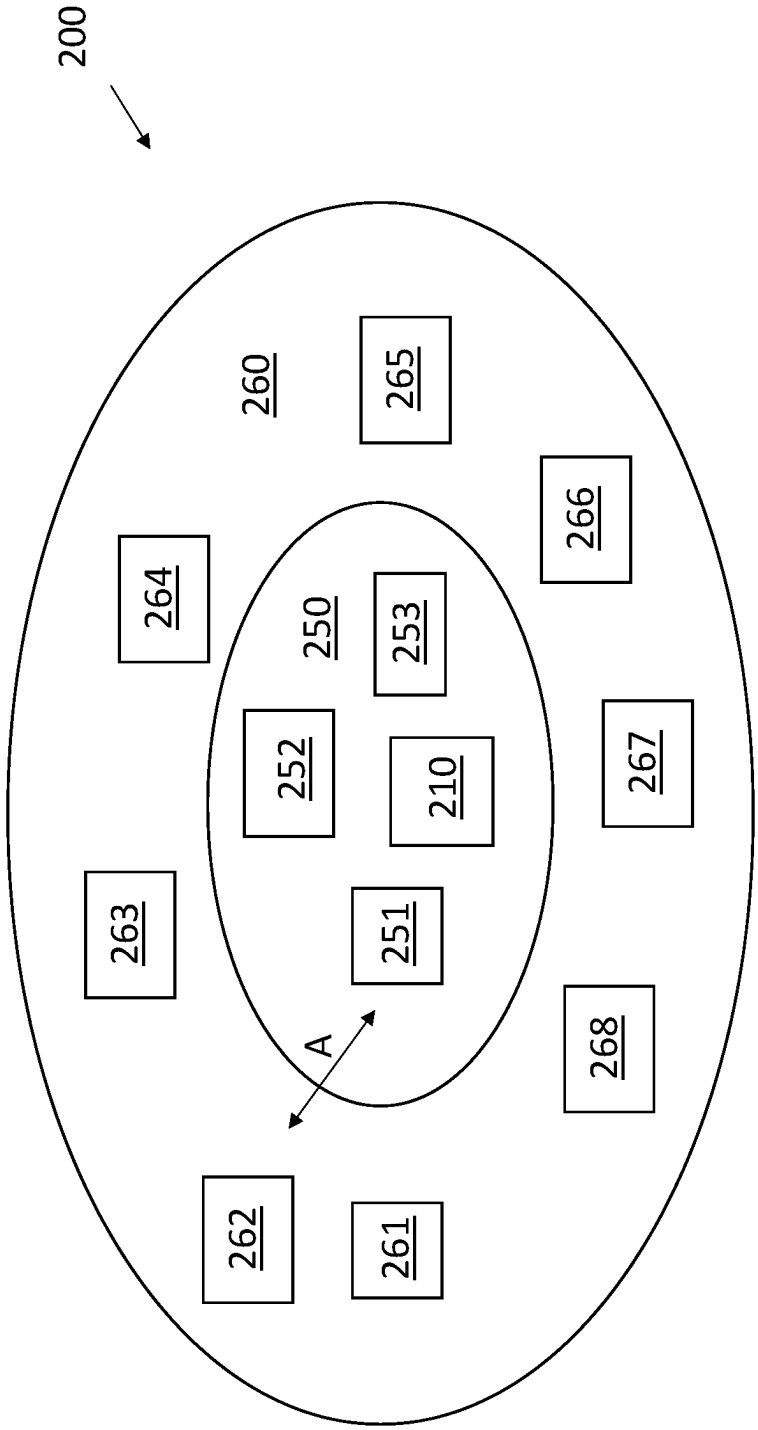


Figure 2

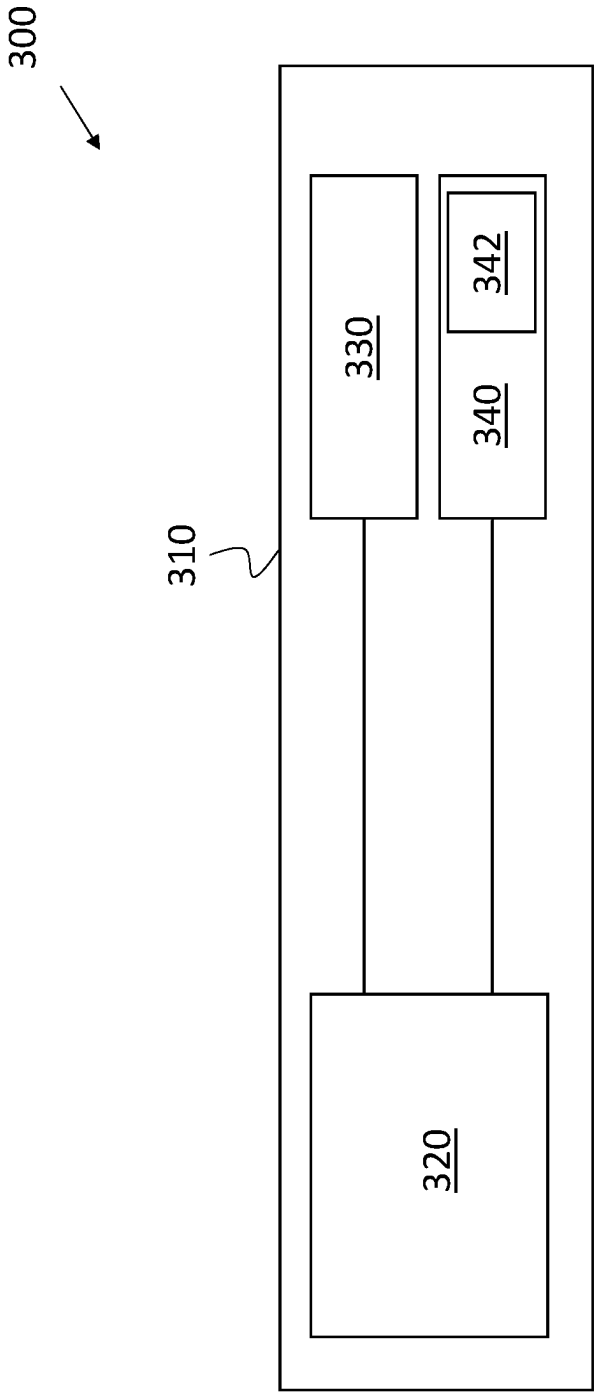


Figure 3

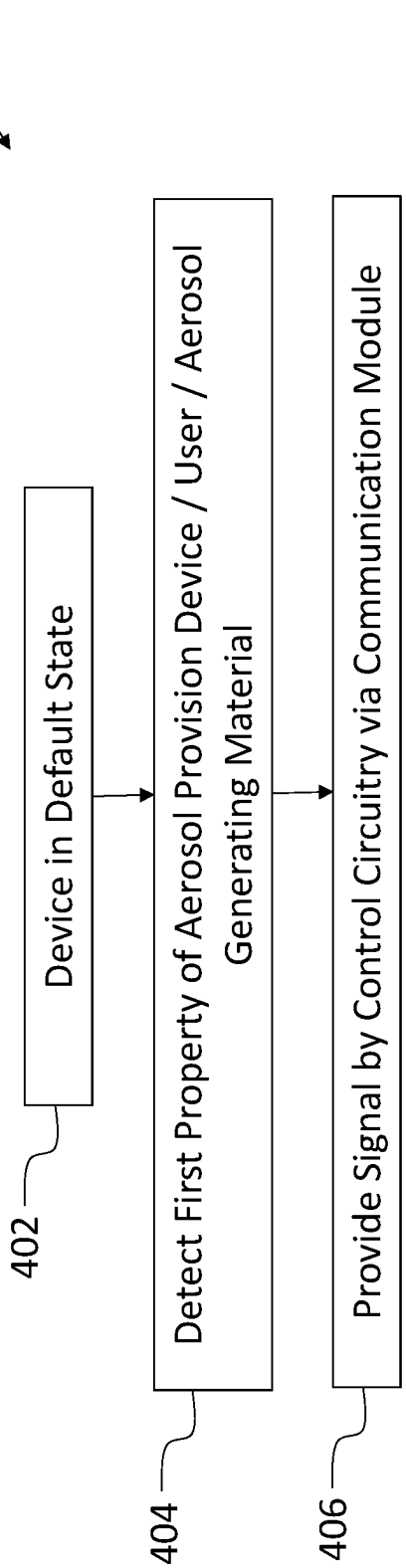

400
Device in Default State
Detect First Property of Aerosol Provision Device / User / Aerosol Generating Material
Provide Signal by Control Circuitry via Communication Module
402
404
406

Figure 4

AEROSOL PROVISION DEVICE COMPRISING A COMMUNICATION MODULE FOR COMMUNICATING TO ANOTHER AEROSOL PROVISION DEVICE

TECHNICAL FIELD

[0001] The present invention relates to an aerosol provision device, a method of providing an aerosol for inhalation by a user, an aerosol provision system, and aerosol provision means.

BACKGROUND

[0002] Aerosol provision devices are known. Common aerosol provision systems combine aerosol generating material and aerosol provision devices and use heaters which are activated by a user to create an aerosol by an aerosol provision device from an aerosol generating material which is then inhaled by the user. The device may be activated by a user at the push of a button or merely by the act of inhalation. Modern systems can use consumable elements containing the aerosol generating material. Modern systems may have communicative elements therein and on board memory and control systems that can monitor the status of various factors of the device. These can be used to improve the user experience of a device.

SUMMARY

[0003] Aspects of the invention are defined in the accompanying claims.

[0004] In accordance with some embodiments described herein, there is provided an aerosol provision device comprising: control circuitry for controlling an activation state of the aerosol provision device; a detector arranged to detect a property associated with the aerosol provision device, aerosol generating material, in use arranged in the aerosol provision device, or user and provide a signal to the control circuitry; and, a communication module for communicating to at least one other aerosol provision device, wherein the control circuitry is arranged to send a signal, via the communication module, to the at least one other aerosol provision device based on the detected property reaching a predetermined value.

[0005] Such an arrangement is able to detect a property of the aerosol provision device, the aerosol generating material or the user and utilise this information to improve user experience. In particular, the arrangement communicates with other aerosol provision devices following the detected property reaching a predetermined value. In an example, this can be to indicate a need or a want of the user of the aerosol provision device to the users of the other aerosol provision devices. This may relate to criteria required to use the aerosol provision device, such as electrical power, amount of aerosol generating material or the like. Other messages may be sent to other aerosol provision devices.

[0006] The aerosol provision device of the present invention is able to communicate to a network of other aerosol provision devices using the communication module. This communication only occurs however when there is a requirement for the user of the aerosol provision device to send a message. The user experience of the device is thereby improved.

[0007] The arrangement is also able to provide a fall back option when a user has misjudged an aspect of the aerosol provision device, such as charge level or amount of aerosol generating material available. Details may be held in a database such that if user 1 provides assistance to user 2, user 1 is easily able to keep track of the assistance given and provided. This can occur on a user-by-user, or on an assistance-by-assistance basis.

[0008] In accordance with some embodiments described herein, there is provided a method of communicating one aerosol provision device with at least one other aerosol provision device, the method comprising: detecting, by a detector, a property associated with the aerosol provision device, aerosol generating material, in use arranged in the aerosol provision device, or user; and, sending a signal, via a communication module of the aerosol provision device, by the control circuitry to at least one other aerosol provision device based on the detected property reaching a predetermined value.

[0009] In accordance with some embodiments described herein, there is provided an aerosol provision system comprising: an aerosol provision device comprising control circuitry for controlling an activation state of the aerosol provision device; a detector arranged to detect a property associated with the aerosol provision device, aerosol generating material, in use arranged in the aerosol provision device, or user and provide a signal to the control circuitry; and, a communication module for communicating to the aerosol provision device and at least one other aerosol provision device, wherein the control circuitry is arranged to send a signal, via the communication module, to the at least one other aerosol

[0010] In accordance with some embodiments described herein, there is provided aerosol provision means comprising: control means for controlling an activation state of the aerosol provision means; detecting means arranged to detect a property associated with the aerosol provision means, aerosol generating material, in use arranged in the aerosol provision means, or user and provide a signal to the control means; and, communication means for communicating to at least one other aerosol provision means, wherein the control means is arranged to send a signal, via the communication means, to at least one other aerosol provision means based on the detected property reaching a predetermined value.

DESCRIPTION OF DRAWINGS

[0011] The present teachings will now be described by way of example only with reference to the following figures:

[0012] FIG. **1** is a schematic view of an aerosol provision device according to an example;

[0013] FIG. **2** is a schematic view of an aerosol provision device network according to an example;

[0014] FIG. **3** is a schematic view of an aerosol provision device according to an example; and,

[0015] FIG. **4** is a flow diagram according to an example.

[0016] While the invention is susceptible to various modifications and alternative forms, specific embodiments are shown by way of example in the drawings and are herein described in detail. It should be understood, however, that the drawings and detailed description of the specific embodiments are not intended to limit the invention to the particular forms disclosed. On the contrary, the invention covers all modifications, equivalents and alternatives falling within the scope of the present invention as defined by the appended claims.

DETAILED DESCRIPTION

[0017] Aspects and features of certain examples and embodiments are discussed/described herein. Some aspects and features of certain examples and embodiments may be implemented conventionally and these are not discussed/described in detail in the interests of brevity. It will thus be appreciated that aspects and features of apparatus and methods discussed herein which are not described in detail may be implemented in accordance with any conventional techniques for implementing such aspects and features.

[0018] The present disclosure relates to aerosol provision systems, which may also be referred to as aerosol provision systems, such as e-cigarettes. Throughout the following description the term "e-cigarette" or "electronic cigarette" may sometimes be used, but it will be appreciated this term may be used interchangeably with aerosol provision system/device and electronic aerosol provision system/device. Furthermore, and as is common in the technical field, the terms "aerosol" and "vapour", and related terms such as "vaporise", "volatilise" and "aerosolise", may generally be used interchangeably.

[0019] FIG. **1** illustrates a schematic view of an example of an aerosol provision device **100** according to the present invention. The aerosol provision device **100** has an aerosol provision device housing **110**. The aerosol provision device **100** has control circuitry **120**. The control circuitry **120** is arranged to control an activation state of the aerosol provision device **100**. The aerosol provision device **100** comprises a detector **130** arranged to detect a property associated with the aerosol provision device **100**, aerosol generating material, in use arranged in the aerosol provision device **100**, or user and provide a signal to the control circuitry **120**. The aerosol provision device **100** further comprises a communication module **140** for communicating to at least one other aerosol provision device. The control circuitry **120** is arranged to send a signal, via the communication module **140**, to the at least one other aerosol provision device based on the detected property reaching a predetermined value.

[0020] The device **100** presented herein is able to keep track of criteria that are important to the functioning of the aerosol provision device **100** and is able to provide a message to other aerosol provision devices in the event that one of the criteria reaches an undesirable value. This value may be set by the user during a setup phase and may represent the user's requirements better than a factory setting.

[0021] The criteria, also referred to as a "property", may be at least one of: an electrical property of the aerosol provision device; a physical property of the aerosol provision device; amount of aerosol generating material; and, type of aerosol generating material. In this way, if the device **100** is running low on electrical charge a notification may be provided to other aerosol provision devices (or one other aerosol provision device) to request assistance for this. In an example, the request may take the form of a request for a charger. The arrangement is able to note the number of requests and number of times assistance has been provided for a particular user, or for a particular user pair. This can be used as a way to track and repay previous requests for assistance. "Electrical" property relates to a property primarily associated with the electronics of the device, such as for example charge levels or current through a component. Each of these provide information on the "electrical" condition of the device. In contrast, "physical" property relates to a property primarily associated with physical aspects of the device, such as for example the location or altitude of the device. In this way, "electrical" properties may relate to the workings of the device, while the "physical" properties may relate to device itself in relation to world around it.

[0022] The sending of a signal to other aerosol provision devices may be made according to location. For example, there may be a consideration of proximity of other aerosol provision devices to the aerosol provision device sending the signal. In a built up, or densely populated area, the signal may only be sent for example up to 1 km. In a remote, or sparsely populated area, the signal may be sent further, to increase the likelihood of a further aerosol provision device receiving the signal and being able to provide assistance.

[0023] The sending of a signal may also involve consideration of the request being made. For example, the user of the aerosol provision device making the request may decide that requests for a charger or assistance with electrical requirements may be made to any user of local aerosol provision devices. In contrast, the user may decide that requests for aerosol generating material or the like are only to be sent to trusted contacts. As such, both location and type of request being made may impact the number of aerosol provision devices to which the signal is sent.

[0024] The property that is detected by the detector **130** have been noted above. The property May be relating to battery power (therefore represent a need for spare battery or a charger), or the voltage/current going through components of the aerosol provision device (which may indicate if there is a need for a repair—such a request may involve requesting a spare component or the like). Physical properties of interest may include location (to note which other users may be available to provide assistance) or speed of movement (to indicate if requesting user is on train or the like) or altitude (to indicate if requesting user is on plane).

[0025] Further properties may include the type of aerosol generating material requested by the user and the amount of the aerosol generating material requested. The type of aerosol generating material may also impact the devices to which the signal is sent. If there is a network for users of a specific type of aerosol generating material, the signal may only be sent to the nearby, trusted users of that network, such that the chances of assistance being provided are increased. The present arrangement tracks requests for assistance and provision of assistance such that users are motivated to provide assistance where they are able to knowing that this can be repaid at a suitable moment. The arrangement may enable the exchange of financial details such that provision of assistance can be repaid as assistance is provided, for example if a spare battery is provided to a user, payment for that battery can occur. This enables more users to continue using their devices without interruption as well as opening social aspects for these users with those who are able to accept requests for assistance.

[0026] In an example, to provide control over the users of other aerosol provision devices that receive requests for assistance, the control circuitry **120** is arranged to categorise the signal from the detector **130** into a privacy ranking. The privacy ranking may correspond to a group of aerosol provision devices the control circuitry **120** is arranged to send signals to, via the communication module **140**. A first privacy ranking may correspond to a first group of aerosol provision devices while a second privacy ranking may correspond to a second group of aerosol provision devices.

The first privacy ranking may be different from the second privacy ranking and the first group of aerosol provision devices may be different from the second group of aerosol provision devices. This privacy aspect may be pre-programmed by the user so that the user is comfortable that the messages that are being sent, are being sent to suitable users. Data sensitive matters may only go to high trust contacts, such as family and close friends or the like. Less sensitive matters may go to any nearby users, whether specific contacts of the user or otherwise.

[0027] This allows the user to control the devices over which the signals are sent and increases user confidence in the arrangement, which can be significant in increasing user engagement with the arrangement.

[0028] In the language used herein a "high privacy" ranking corresponds to a high trust group of aerosol provision devices (such as friends or family) and a "low privacy" ranking corresponds to a high and low trust group of aerosol provision devices (such as friends, family and also other users). The high trust group of contacts may be populated by the user using social media, or smart phone connected numbers, or via email or the like. Any authentication system for these users can be integrated into the present arrangement.

[0029] Messages to the high trust group may contain high level of details such as user request, user location and user contact details. Messages to the low trust group may contain fewer details, such as user request only and then further details may be sent on confirmation or request by the user making the request for assistance. Message to low trust groups may include a suggestion to meet in a public space such as a coffee shop or the like, while messages to high trust groups may detail the specific location of the user. The arrangement is able to prioritise user safety while increasing user experience of the device.

[0030] Within the high and low trust groups, there may be divisions in terms of which contacts receive which pieces of information. For example, within each group each contact may be provided with a privacy ranking such that one or two contacts can be noted as extremely high trust contacts. More information may be shared with an extremely high trust contact than a contact in the high trust group. This again can be personalised and controlled by the user such that appropriate contacts are provided with information that the user is comfortable with.

[0031] Referring now to FIG. **2**, there is a shown an aerosol provision device network **200** according to an example. The device **100** of FIG. **1** is shown as device **210** of FIG. **2**. The device **210** has similar features to device **100** of FIG. **1**, however these are not shown in FIG. **2** for simplicity.

[0032] The network **200** has two groups **250**, **260**. The groups **250**, **260** are populated with other devices **251**, **252**, **253**, **261**, **262**, **263**, **264**, **265**, **266**, **267**, **268**. The inner group **250** represents a high trust group **250** of aerosol provision devices **251**, **252**, **253**. The high trust group **250** are able to receive messages from the user's device **210** with high privacy ranking information. The high trust group **250** are also able to receive messages from the user's device **210** with low privacy ranking information.

[0033] The outer group **260** represents a low trust group **260** of aerosol provision devices **261**, **262**, **263**, **264**, **265**, **266**, **267**, **268**. The low trust group **260** are able to receive messages from the user's device **210** with low privacy ranking information.

[0034] As explained above, such information may include requests for assistance and location information. These may be sensitive and the user of the device **210** may control which devices in the network **200** are able to receive which aspects of the information.

[0035] The user of device **210** may control the group in which devices are arranged, therefore a device from the high trust group **250** may be moved to the low trust group **260** indicated by arrow A in FIG. **2**, while another device may be moved from the low trust group **260** to the high trust group **250**. Arrow A therefore indicates that changing trust levels can be applied to devices as the user wishes.

[0036] Such changing trust levels may occur on a purely user-controlled basis or may occur in response to repeated successful instances of assistance provision. If the user of device **263** responds to a predetermined number of requests for assistance, the device **210** may suggest to increase the trust level for device **263** to the user. This may occur automatically on a predetermined number set by the user of device **210**. This indicates that the user of device **263** has shown themselves to be a high trust user. Successful provision of assistance may be recorded in a database that may be remote or on board the devices.

[0037] Referring now to FIG. **3**, there is a shown a similar device **300** to the device **100** of FIG. **1**. Similar features, to those features used in FIG. **1**, are shown with the reference numerals increased by **200**. For example, the device **100** of FIG. **1** is similar to the device **300** of FIG. **3**. Similar or identical features may not be discussed for conciseness.

[0038] The device **300** of FIG. **3** has control circuitry **320**, detector **330**, and communication module **340**. The aerosol provision device **300** of FIG. **3** also has a database of stored contacts **342**. In the example shown in FIG. **3**, the database of stored contacts **342** is part of the communication module **340**. The communication module **340** is arranged to communication to the database of stored contacts **342**. The database of stored contacts **342** holds a privacy ranking for each stored contact. The database of stored contacts **342** may be on board or held remotely to the device **300**. In the example wherein the database of stored contacts **342** is held remotely, the communication module **340** may provide signals wirelessly to the database of stored contacts **342**. The communication module **240** may be arranged to use at least one of Bluetooth ™, Bluetooth Low Energy ™, ZigBee ™, WiFi ™, Wifi Direct ™, GSM, 2G, 3G, 4G, 5G, LTE, NFC, or RFID. Instances where a user of a device has provided assistance in response to a signal sent from the user's device **300** may be stored in the database. This assists in the returning of the favour or tracking of specific trust levels of devices.

[0039] Responses to signals sent from the user's device **300** may be categorised into accept responses and reject responses. An accept response is a response where a user offers help corresponding to the request. A reject is either a response where a user does not offer help, or the response is timed out. A note may then be made on the successful provision of assistance from an accept response. This categorises each response to a signal from the device **300** of the user.

[0040] The control circuitry **320** is arranged to, in response to receiving a signal from the communication

module **340** associated with at least one other aerosol provision device associated with an earlier accept signal, update the database **342**. This enables the database to be built of reliable nearby users that are able to provide assistance. In this way, a refined group of users may be constructed that have previously provided assistance. These users may not have been contacts of the user of device **300** initially, but that become so through provision of assistance. This assists the database to keep track of the various offers for and provision of help. As mentioned above, the control circuitry **320** may be arranged to update a trust value associated with a first aerosol provision device in the database **342**, in response to receiving a predetermined number of accept signals from the first aerosol provision device. This may be overridden or otherwise controlled by the user of the device **300**. Again, this allows for a curated list of helpful contacts.

[0041] FIG. **4** shows a method **400** of use of an aerosol provision device. In the method **400**, the device may start in a default state **402**, which may be an operating state such that users are able to use the device. Alternatively, the default operating state may be a restricted operating state where only partial operation of the device is possible.

[0042] At step **404**, the detector detects a property associated with the aerosol provision device, aerosol generating material, in use arranged in the aerosol provision device, or the user. At step **406**, the control circuitry sends, via a communication module of the aerosol provision device, a signal to at least one other aerosol provision device based on the detected property reaching a predetermined value. As mentioned above, this may be any of an electrical property of the aerosol provision device; a physical property of the aerosol provision device; amount of aerosol generating material; and, type of aerosol generating material. The signal indicates the user is in need and requests assistance from a network of aerosol provision devices.

[0043] The term "in response to" is used herein to indicate a second event (such as a signal or change of state of an aerosol provision device) that occurs subsequent to a first event. The second event may occur at a later time, after a predetermined time, or immediately after the first event.

[0044] The device and system herein are described as comprising several components that enable several advantages. The components may be disclosed as on-board the device or within the system. The components may be distributed and therefore not necessarily be located on-board the device. The functionality of the device can be provided by communicatively connected components, and such communication may be wireless, enabling such distribution. At which point it is reasonable to foresee that a distributed array of components will operate in the manner of the devices and systems disclosed herein. Components of the device or system may be contained in a further device such as a smartphone, computer, or remote server or the like.

[0045] The present arrangement allows for communication between users to improve the usability and user experience of users' devices.

[0046] The method and device disclosed herein enable protection over the information of the device while improving connectivity between users of similar devices. This improves the user experience of the device and the safety of general use of the device.

[0047] In a particular example, the device disclosed herein may operate with a flavour pod which is replaceable in the device—this may be referred to as a consumable. The flavour may be any of tobacco and glycol and may include extracts (e.g., licorice, hydrangea, Japanese white bark magnolia leaf, chamomile, fenugreek, clove, menthol, Japanese mint, aniseed, cinnamon, herb, wintergreen, cherry, berry, peach, apple, Drambuie, bourbon, scotch, whiskey, spearmint, peppermint, lavender, cardamon, celery, cascarilla, nutmeg, sandalwood, bergamot, geranium, honey essence, rose oil, vanilla, lemon oil, orange oil, cassia, caraway, cognac, jasmine, ylang-ylang, sage, fennel, piment, ginger, anise, coriander, coffee, or a mint oil from any species of the genus *Mentha*), flavour enhancers, bitterness receptor site blockers, sensorial receptor site activators or stimulators, sugars and/or sugar substitutes (e.g., sucralose, acesulfame potassium, aspartame, saccharine, cyclamates, lactose, sucrose, glucose, fructose, sorbitol, or mannitol), and other additives such as charcoal, chlorophyll, minerals, botanicals, or breath freshening agents. They may be imitation, synthetic or natural ingredients or blends thereof.

[0048] When combined with an aerosol generating medium, the aerosol provision device as disclosed herein may be referred to as an aerosol provision system.

[0049] Thus there has been described an aerosol provision device comprising: control circuitry for controlling an activation state of the aerosol provision device; a detector arranged to detect a property associated with the aerosol provision device, aerosol generating material, in use arranged in the aerosol provision device, or user and provide a signal to the control circuitry; and, a communication module for communicating to at least one other aerosol provision device, wherein the control circuitry is arranged to send a signal, via the communication module, to the at least one other aerosol provision device based on the detected property reaching a predetermined value.

[0050] The aerosol provision system may be used in a tobacco industry product, for example a non-combustible aerosol provision system.

[0051] In one embodiment, the tobacco industry product comprises one or more components of a non-combustible aerosol provision system, such as a heater and an aerosolizable substrate.

[0052] In one embodiment, the aerosol provision system is an electronic cigarette also known as a vaping device.

[0053] In one embodiment the electronic cigarette comprises a heater, a power supply capable of supplying power to the heater, an aerosolizable substrate such as a liquid or gel, a housing and optionally a mouthpiece.

[0054] In one embodiment the aerosolizable substrate is contained in or on a substrate container. In one embodiment the substrate container is combined with or comprises the heater.

[0055] In one embodiment, the tobacco industry product is a heating product which releases one or more compounds by heating, but not burning, a substrate material. The substrate material is an aerosolizable material which may be for example tobacco or other non-tobacco products, which may or may not contain nicotine. In one embodiment, the heating device product is a tobacco heating product.

[0056] In one embodiment, the heating product is an electronic device.

[0057] In one embodiment, the tobacco heating product comprises a heater, a power supply capable of supplying power to the heater, an aerosolizable substrate such as a solid or gel material.

[0058] In one embodiment the heating product is a non-electronic article.

[0059] In one embodiment the heating product comprises an aerosolizable substrate such as a solid or gel material, and a heat source which is capable of supplying heat energy to the aerosolizable substrate without any electronic means, such as by burning a combustion material, such as charcoal.

[0060] In one embodiment the heating product also comprises a filter capable of filtering the aerosol generated by heating the aerosolizable substrate.

[0061] In some embodiments the aerosolizable substrate material may comprise an aerosol or aerosol generating agent or a humectant, such as glycerol, propylene glycol, triacetin or diethylene glycol.

[0062] In one embodiment, the tobacco industry product is a hybrid system to generate aerosol by heating, but not burning, a combination of substrate materials. The substrate materials may comprise for example solid, liquid or gel which may or may not contain nicotine. In one embodiment, the hybrid system comprises a liquid or gel substrate and a solid substrate. The solid substrate may be for example tobacco or other non-tobacco products, which may or may not contain nicotine. In one embodiment, the hybrid system comprises a liquid or gel substrate and tobacco.

[0063] In order to address various issues and advance the art, the entirety of this disclosure shows by way of illustration various embodiments in which the claimed invention(s) may be practiced and provide for a superior electronic aerosol provision system. The advantages and features of the disclosure are of a representative sample of embodiments only, and are not exhaustive and/or exclusive. They are presented only to assist in understanding and teach the claimed features. It is to be understood that advantages, embodiments, examples, functions, features, structures, and/or other aspects of the disclosure are not to be considered limitations on the disclosure as defined by the claims or limitations on equivalents to the claims, and that other embodiments may be utilised and modifications may be made without departing from the scope and/or spirit of the disclosure. Various embodiments may suitably comprise, consist of, or consist essentially of, various combinations of the disclosed elements, components, features, parts, steps, means, etc. In addition, the disclosure includes other inventions not presently claimed, but which may be claimed in future.

1. An aerosol provision device comprising:

control circuitry for controlling an activation state of the aerosol provision device;

a detector arranged to detect a property associated with the aerosol provision device, aerosol generating material, in use arranged in the aerosol provision device, or user and provide a signal to the control circuitry; and,

a communication module for communicating to at least one other aerosol provision device,

wherein the control circuitry is arranged to send a signal, via the communication module, to the at least one other aerosol provision device based on the detected property reaching a predetermined value.

2. An aerosol provision device according to claim **1** wherein the property is at least one of:

an electrical property of the aerosol provision device;

a physical property of the aerosol provision device; amount of aerosol generating material; and,

type of aerosol generating material.

3. An aerosol provision device according to claim **1**, wherein

the control circuitry is arranged to categorise the signal from the detector into a privacy ranking,

wherein the privacy ranking corresponds to a group of aerosol provision devices the control circuitry is arranged to send signals to, via the communication module,

wherein a first privacy ranking corresponds to a first group of aerosol provision devices and a second privacy ranking corresponds to a second group of aerosol provision devices,

wherein the first privacy ranking is different from the second privacy ranking and the first group of aerosol provision devices is different from the second group of aerosol provision devices.

4. An aerosol provision device according to claim **3**, wherein a high privacy ranking corresponds to a high trust group of aerosol provision devices and wherein a low privacy ranking corresponds to a high and low trust group of aerosol provision devices.

5. An aerosol provision device according to claim **4**, wherein a high privacy signal comprises information regarding an electrical property of the aerosol provision device, a physical property of the aerosol provision device, amount of aerosol generating material, and type of aerosol generating material and,

wherein a low privacy signal comprises information regarding one of an electrical property of the aerosol provision device, a physical property of the aerosol provision device, amount of aerosol generating material, and type of aerosol generating material.

6. An aerosol provision device according to claim **1**, wherein the communication module is arranged to communicate to a database of stored contacts, wherein the database of stored contacts comprises a privacy ranking for each stored contact.

7. An aerosol provision device according to claim **1**, wherein the control circuitry is arranged to receive signals, via the communication module, from at least one other aerosol provision device, in response to sending a signal, via the communication module,

wherein the control circuitry stores in a database accept signals associated with at least one other aerosol provision device.

8. An aerosol provision device according to claim **7**, wherein the control circuitry is arranged to, in response to receiving a signal from the communication module associated with at least one other aerosol provision device associated with an earlier accept signal, update the database.

9. An aerosol provision device according to claim **8**, wherein the control circuitry is arranged to update a trust value associated with a first aerosol provision device in the database, in response to receiving a predetermined number of accept signals from the first aerosol provision device.

10. An aerosol provision device according to claim **1**, wherein the communication module is arranged to use wireless communication.

11. An aerosol provision device according to claim **1**, wherein the communication module is arranged to use at least one of Bluetooth ™, Bluetooth Low Energy ™, ZigBee ™, WiFi ™, Wifi Direct ™, GSM, 2G, 3G, 4G, 5G, LTE, NFC, or RFID.

12. A method of communicating one aerosol provision device with at least one other aerosol provision device, the method comprising:

detecting, by a detector, a property associated with the aerosol provision device, aerosol generating material, in use arranged in the aerosol provision device, or user; and,

sending a signal, via a communication module of the aerosol provision device, by the control circuitry to at least one other aerosol provision device based on the detected property reaching a predetermined value.

13. A method according to claim **12**, wherein the property is at least one of:

an electrical property of the aerosol provision device;

a physical property of the aerosol provision device; amount of aerosol generating material; and,

type of aerosol generating material.

14. A method according to claim **12**, further comprising

categorising, by the control circuitry, the signal from the detector into a privacy ranking, wherein the privacy ranking corresponds to a group of aerosol provision devices the control circuitry sends signals to, via the communication module,

wherein

sending a signal, via a communication module of the aerosol provision device, by the control circuitry to at least one other aerosol provision device based on the detected property reaching a predetermined value comprises:

sending a signal to at least one other aerosol provision device, based on the privacy ranking of the signal from the detector, and the associated privacy ranking of the at least one other aerosol provision device.

15. A method according to claim **12**, further comprising

communicating, by communication module, with a database of stored contacts, wherein the database of stored contacts comprises a privacy ranking for each stored contact.

16. A method according to claim **12**, further comprising

receiving, by the control circuitry, via the communication module, signals from at least one other aerosol provision device, in response to sending a signal, via the communication module, and,

storing, by the control circuitry, in a database, accept signals associated with at least one other aerosol provision device.

17. A method according to claim **16**, further comprising

updating the database, by the control circuitry, in response to receiving a signal from a communication module associated with at least one other aerosol provision device associated with an earlier accept signal.

18. A method according to claim **17**, further comprising

updating, by the control circuitry, a trust value associated with a first aerosol provision device in the database, in response to receiving a predetermined number of accept signals from the first aerosol provision device.

19. An aerosol provision system comprising:

an aerosol provision device comprising control circuitry for controlling an activation state of the aerosol provision device;

a detector arranged to detect a property associated with the aerosol provision device, aerosol generating material, in use arranged in the aerosol provision device, or user and provide a signal to the control circuitry; and,

a communication module for communicating to the aerosol provision device and at least one other aerosol provision device,

wherein the control circuitry is arranged to send a signal, via the communication module, to the at least one other aerosol provision device based on the detected property reaching a predetermined value.

20. (canceled)

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