information. Further, currently described systems may not provide social interaction with other users.

[5] For example with regard to dosing, previous attempts to determine the dosage of vapor and/or an active ingredient in the vapor have been unsatisfactory. Systems that pre-determine dosage by restricting the amount of material to be delivered in a session assume, often incorrectly, that all of the material will be inhaled, and may not be adjustable for partial dosages. Such systems may also meter the amount of material, and require accurate measurement of the mass and/or volume of material being delivered for vaporization, or measure the difference between a starting mass/volume and post-delivery mass or volume. These measurements may be difficult, requiring a high level of accuracy and expense, and may result in inaccurate results. Further, current dose controlling electronic smoking devices typically control the dose delivered without a link to or actual knowledge of the actual clinical and medical needs of the user, and may not allow a controlled dose to be adjusted based on the user biometrics such as weight, age, symptoms, etc. Existing systems may also lack features that allow a user to customize usage based on their habits and goals, as well as their social needs.

[6] The systems, apparatuses, and methods described herein address at least these problems and concerns.

SUMMARY

[6a] According to a first aspect of the present invention, there is provided a cartridge for use with a vaporizer body, the cartridge including: an identifier that indicates information about the cartridge; a cartridge memory configured to store the identifier and configured to receive data written by a controller during use of the cartridge; a vaporizable material; a heater configured to heat the vaporizable material; and a plurality of cartridge contacts, each configured for engagement with one or more vaporizer body contacts of the vaporizer body when the cartridge is coupled to the vaporizer body.

[6b] According to a second aspect of the present invention, there is provided a vaporizer including: a vaporizer body comprising a power source, a controller, and one or more vaporizer body contacts in communication with the controller; and a cartridge comprising a

cartridge memory, a heater, a vaporizable material, and plurality of cartridge contacts configured for engagement with at least one of the one or more vaporizer body contacts on the vaporizer body when the cartridge is coupled to the vaporizer; wherein the controller is configured to perform operations comprising: applying power to the one or more electrical contacts to heat the heater; and reading electrical signals from the cartridge memory.

[6c] According to a third aspect of the present invention, there is provided a method including: coupling a cartridge to a vaporizer body to form a vaporizer, the cartridge comprising an identifier, a cartridge memory configured to store the identifier and configured to receive data written by a controller during use of the cartridge, a heater, a vaporizable material, and plurality of cartridge contacts, and the vaporizer body comprising a power source, a controller, and one or more vaporizer body contacts in communication with the controller, the coupling comprising engaging at least one of the one or more vaporizer body contacts on the vaporizer body with the plurality of cartridge contacts on the cartridge; applying power to at least one of the one or more vaporizer body contacts to heat the heater; and reading information from the identifier to the controller.

[7] Embodiments of the current subject matter relate to management of operation (e.g. one or more settings or operation parameters of a vaporizer. In some embodiments, a cartridge may be coupled to a vaporizer body. The cartridge may include a vaporizable material and a heater as well as an identifier, which may optionally be a cartridge memory. The vaporizer body may include a controller, which may exchange data (e.g. via one or two way communication) with the identifier. This exchange of data may optionally occur via a same circuit over which electrical power from a power source of the vaporizer body is delivered to the heater of the cartridge.

[8] In another embodiment, a vaporizer system can include a device in communication with a vaporizer. The device may execute software or other instructions that result in an application usable to obtain information from a vaporizer, optionally over a wireless

CLAIMS

1. A cartridge for use with a vaporizer body, the cartridge comprising:

an identifier that indicates information about the cartridge;

a cartridge memory configured to store the identifier and configured to receive data written by a controller during use of the cartridge;

a vaporizable material;

a heater configured to heat the vaporizable material; and

a plurality of cartridge contacts, each configured for engagement with one or more vaporizer body contacts of the vaporizer body when the cartridge is coupled to the vaporizer body.

2. A cartridge as in claim 1, wherein the engagement of the plurality of cartridge contacts with the corresponding vaporizer body contact forms an electrical power circuit regulated by a controller that regulates power flow from a power source in the vaporizer body to control a temperature at which the heater heats at least some of the vaporizable material.

3. A cartridge as in claim 1, wherein the engagement of the plurality of cartridge contacts with the corresponding vaporizer body contact forms a data exchange circuit via which the data are passed between the cartridge memory and the controller.

4. A cartridge as in claim 1, wherein the data written to the cartridge memory by the controller comprises use history data for the cartridge.

5. A cartridge as in claim 3, further comprising a capacitive circuit configured to apply a charge to the cartridge memory when the vaporizer body is not applying energy to the plurality of cartridge contacts.

6. A cartridge as in claim 3, wherein the cartridge memory comprises an EEPROM.

7. A cartridge as in claim 3, wherein the cartridge memory stores and is configured to output the information via fluctuations in a baseline resistance occurring at a fluctuation frequency, the baseline resistance being between a power source in the vaporizer body and the heater, and the baseline resistance being detectable by the controller.

8. A cartridge as in claim 3, wherein the electrical power circuit comprises an H-bridge circuit connected to the cartridge memory, and wherein the H-bridge circuit is configured to rectify an input through the plurality of cartridge contacts when the plurality of cartridge contacts is engaged with the corresponding vaporizer body contact.

9. A cartridge as in claim 1, wherein the information comprises a cartridge specific identification.

10. A cartridge as in claim 1, wherein the information comprises a parameter relating to one or more of identification of the vaporizable material within the cartridge, a type of heater in the cartridge, a concentration and/or amount of vaporizable material in the cartridge, a use history of the cartridge, and preferred temperature settings for use with the cartridge.

11. A vaporizer comprising:

a vaporizer body comprising a power source, a controller, and one or more vaporizer body contacts in communication with the controller; and

a cartridge comprising a cartridge memory, a heater, a vaporizable material, and plurality of cartridge contacts configured for engagement with at least one of the one or more vaporizer body contacts on the vaporizer body when the cartridge is coupled to the vaporizer;

wherein the controller is configured to perform operations comprising:

applying power to the one or more electrical contacts to heat the heater; and

reading electrical signals from the cartridge memory.

12. A vaporizer as in claim 11, wherein engagement of the plurality of cartridge contacts with the at least one of the one or more vaporizer body contacts forms an electrical power circuit via which the controller in the vaporizer body regulates power flow from the power source in the vaporizer body to control a temperature at which the heater heats at least some of the vaporizable material from the source of the vaporizable material.

13. A vaporizer as in claim 11, wherein engagement of the plurality of cartridge contacts with the at least one of the one or more vaporizer body contacts forms a data exchange circuit via which the controller reads the electrical signals from the cartridge memory.

14. A method comprising:

coupling a cartridge to a vaporizer body to form a vaporizer, the cartridge comprising an identifier, a cartridge memory configured to store the identifier and configured to receive data written by a controller during use of the cartridge, a heater, a vaporizable material, and plurality of cartridge contacts, and the vaporizer body comprising a power source, a controller, and one or more vaporizer body contacts in communication with the controller, the coupling comprising engaging at least one of the one or more vaporizer body contacts on the vaporizer body with the plurality of cartridge contacts on the cartridge;

applying power to at least one of the one or more vaporizer body contacts to heat the heater; and

reading information from the identifier to the controller.

15. A method as in claim 14, wherein the engagement of the plurality of cartridge contacts with the at least one of the one or more vaporizer body contacts forms a data exchange circuit via which data are passed between the memory and the controller.

16. A method as in claim 14, further comprising:

accessing, through operation of an application executing on one or more processors, the information included in the identifier;

presenting the information about the vaporizer using a user interface generated on a display by the one or more processors;

receiving a user input by interaction of a user with the user interface; and

causing the vaporizer to operate consistent with one or more parameters determined by the one or more processors in accordance with the user input.

17. A cartridge as in claim 4, wherein the use history data includes a number of uses of the cartridge.

18. A cartridge as in claim 4, wherein the use history data includes a duration of use of the cartridge.

19. A cartridge as in claim 4, wherein the use history data includes at least one temperature setting of the cartridge.

20. A vaporizer as in claim 11, wherein the cartridge memory is readable and writable, and wherein the cartridge memory is configured to store data written to the cartridge memory by the controller.

21. A vaporizer as in claim 11, wherein the data written to the cartridge memory by the controller comprises use history data for the cartridge.

22. A vaporizer as in claim 21, wherein the use history data includes a number of uses of the cartridge.

23. A vaporizer as in claim 21, wherein the use history data includes a duration of use of the cartridge.

24. A vaporizer as in claim 21, wherein the use history data includes at least one temperature setting of the cartridge.

25. A method as in claim 15, further comprising:

storing data written to the cartridge memory by the controller, the data comprising use history data for the cartridge.

26. A method as in claim 25, wherein the use history data includes a number of uses of the cartridge.

27. A method as in claim 25, wherein the use history data includes a duration of use of the cartridge.

28. A method as in claim 25, wherein the use history data includes at least one temperature setting of the cartridge.