CLAIMS

1. A method comprising:

receiving, from a plurality of electricity monitors distributed within a building, each electricity monitor including a unique identifier, measured power usage data associated with the unique identifier for each electricity monitor;

for each unique identifier, storing in a database the received measured power usage data in association with that unique identifier;

for each unique identifier, determining whether the stored measured power usage data matches a pattern for occupancy, wherein the pattern for occupancy is a pattern of power use that correlates with use by a person residing in a seat;

for each unique identifier with measured power usage data matching the pattern for occupancy, determining whether recent data within the stored measured power usage data exceeds a measured power usage threshold; and

counting as an occupied seat every unique identifier having measured power usage data matching the pattern for occupancy and having recent data within the measured power usage data exceeding the measured power usage threshold to determine a number of occupied seats.

2. The method of claim 1 further comprising, for each unique identifier, storing in the database, in association with that unique identifier, a location of the electricity monitor within the building.

3. The method of claim 1 or 2 further comprising for each unique identifier, filling in missing values in the measured power usage data stored in the database.

4. The method of claim 1, 2, or 3 further comprising revising a measured power usage threshold for a unique identifier.

5. The method of claim 1-3 or 4 further comprising adjusting a setting of a thermostat within the building based on a change in the number of occupied seats.

6. The method of claim 1-4 or 5 further comprising updating an occupancy model for the building based on a comparison of the occupied seats to seats predicted by the occupancy model.

7. The method of claim 1-5 or 6 further comprising categorizing each seat according to the amount of time that power is used.

8. The method of claim 1-6 or 7 further comprising dynamically assigning unoccupied seats.

9. The method of claim 1-7 or 8 further comprising receiving and aggregating data from a 3rd party source located outside of the building.

10. A system for use in a building, the building including a number of distributed thermostats, the system comprising:

a plurality of electricity monitors, each including a unique identifier and each for plugging into a different power outlet within the building, each configured to measure power usage and periodically transmit measured power usage;

a gateway configured for communication with the number of thermostats and the plurality of electricity monitors;

a database; and

a server configured for communication with the gateway and the database, the server including logic configured to

receive, from the plurality of electricity monitors, measured power usage data associated with the unique identifier for each electricity monitor, determine a change in building occupancy based on the received measured power usage data, and

vary a temperature setting of a thermostat of the number of thermostats based on the change in building occupancy.

11. The system of claim 10 wherein the server is a web server.

12. The system of claim 10 or 11 wherein the electricity monitors are configured to communicate with the gateway by Zigbee.

13. The system of claim 10, 11, or 12 further comprising the number of thermostats.

14. The system of claim 10-12 or 13 wherein the logic is further configured to maintain an occupancy model for the building.

15. The system of claim 10-13 or 14 wherein the logic is further configured to receive a weather forecast and to vary a temperature setting of a thermostat of the number of thermostats based on the weather forecast.

16. The system of claim 10-14 or 15 wherein the logic is further configured to receive a report, to use natural language processing to interpret the report, and to vary a temperature setting of a thermostat of the number of thermostats based on an interpretation of the report.