Claims

1. A system for inspecting items in transit through a transit facility, wherein the system comprises:

a plurality of data collection units located at a plurality of transit facilities;

a decision entity, in connection with the data collection unit at a selected one of the transit facilities; and

a server connectable to each of the data collection units, the server comprising:

a data store storing inspection data, obtained from the data collection units, indicative of instances of item inspection at the plurality of transit facilities; and

a processor coupled to the data store and operable to update the data store based on data gathered at the data collection units;

wherein, for an item in transit through a transit facility, the system is configured to:

obtain item data providing an indication of a predicted level of inspection for the item and provide said item data to the decision entity;

obtain, from the decision entity, a decided level of inspection for the item; and

control inspection of the item according to a final level of inspection assigned to the item, wherein the final level of inspection is selected based on an indication of: (i) the predicted level of inspection for the item, and (ii) the decided level of inspection for the item.

2. The system of claim 1, wherein controlling inspection of the item in transit comprises operating a detection device at the transit facility to obtain inspection data for the item in the event that the final level of inspection indicates that the item is to be inspected.

3. The system of claim 2, wherein the detection device is selected based on the final level of inspection for the item.

4. The system of any of claims 1 to 3, wherein controlling inspection comprises controlling movement of the item at the transit facility.

5. The system of claim 4, wherein controlling movement comprises moving the item to a location selected based on the final level of inspection for the item.

6. The system of any preceding claim, wherein the final level of inspection is selected based also on a random element, for example so that every item in transit has a non-zero chance of being inspected.

7. The system of any preceding claim, wherein the final level of inspection is selected based also on the stored inspection data.

8. The system of any preceding claim, wherein the final level of inspection is selected based also on: (iii) a transit inspection metric indicative of the stored instances of item inspection at the plurality of transit facilities, and (iv) a decision entity metric indicative of stored instances of item inspection associated with the decision entity.

9. The system of any preceding claim, wherein the decision entity is configured to provide the decided level of inspection based on inspection data associated with the item, and the predicted level of inspection.

10. The system of any preceding claim, further comprising a prediction system configured to obtain input data for the item in transit and to determine therefrom the predicted level of inspection for the item.

11. The system of claim 10, wherein the prediction system comprises a machine learning element; and

wherein the system is configured to train the machine learning element based on at least one of: (i) inspection data obtained from inspection of an item in transit, (ii) the final level of inspection assigned to the item and (iii) the indications for that item.

12. A system for monitoring operation of human operators at a transit facility, wherein the system comprises:

a plurality of data collection units located at a plurality of transit facilities;

a decision entity, in communication with data collection units at a selected one of the transit facilities; and

a server connectable to each of the data collection units, the server comprising:

a data store storing inspection data, obtained from the data collection units, indicative of instances of item inspection at the plurality of transit facilities; and

a processor coupled to the data store and operable to update the data store based on data gathered at the data collection units;

wherein, for an item in transit through a transit facility, the system is configured to:

obtain item data providing an indication of a predicted level of inspection for the item and provide said item data to the decision entity;

obtain, from the decision entity, a decided level of inspection for the item;

identify instances in which the predicted level of inspection for the item differs from the decided level of inspection for the item; and

for each said instance, in the event that a monitoring metric is greater than a selected threshold, output a command signal to investigate the decided level of inspection, wherein the monitoring metric is indicative of a likelihood that the difference in level of inspection should be investigated and is determined based on an indication of: (i) the predicted level of inspection for the item, and (ii) the decided level of inspection for the item, wherein outputting a command signal comprises triggering an override action so that the item in transit is assigned a different level of inspection to the decided level of inspection, and wherein the system is configured to control inspection of the item according to the different level of inspection.

13. The system of claim 12, wherein the system is configured to determine whether or not the decided level of inspection was correct based on an outcome of the inspection of the item, for example the system is configured to output an alert in the event that the decided level was not correct.

14. The system of any of claims 12 to 13, wherein the monitoring metric is determined based on the stored inspection data.

15. The system of any of claims 12 to 14, wherein the monitoring metric is determined based also on: (iii) a transit inspection metric indicative of the stored instances of item inspection at the plurality of transit facilities, and (iv) a decision entity metric indicative of stored instances of item inspection associated with the decision entity.

16. The system of any of claims 12 to 15, wherein the monitoring metric is determined based also on a random element.

17. The system of any of claims 12 to 16, wherein the system is configured to determine the monitoring metric using a statistical model which takes into account data indicative of at least one of: (i) transit data for the item, (ii) temporal or seasonal data; (iii) inspection data obtained from a detection device operating on the item; (iv) data from a computer-based analysis of the inspection data.

18. A method of controlling inspection of an item in transit through a transit facility, wherein the transit facility is part of a system comprising:

a plurality of data collection units located at a plurality of transit facilities;

a decision entity, in communication with data collection units at a selected one of the transit facilities; and

a server connectable to each of the data collection units, the server comprising:

a data store storing inspection data, obtained from the data collection units, indicative of instances of item inspection at the plurality of transit facilities; and

a processor coupled to the data store and operable to update the data store based on data gathered at the data collection units;

wherein the method comprises:

obtaining item data providing an indication of a predicted level of inspection for the item and providing said item data to the decision entity;

obtaining, from the decision entity, a decided level of inspection for the item; and

controlling inspection of the item according to a final level of inspection assigned to the item, wherein the final level of inspection is selected based on an indication of: (i) the predicted level of inspection for the item, and (ii) the decided level of inspection for the item.

19. A method of monitoring operation of human operators at a transit facility, wherein the transit facility is part of a system comprising:

a plurality of data collection units located at a plurality of transit facilities;

a decision entity, in communication with data collection units at a selected one of the transit facilities; and

a server connectable to each of the data collection units, the server comprising:

a data store storing inspection data, obtained from the data collection units, indicative of instances of item inspection at the plurality of transit facilities; and

a processor coupled to the data store and operable to update the data store based on data gathered at the data collection units;

wherein, for an item in transit through a transit facility, method comprises:

obtaining item data providing an indication of a predicted level of inspection for the item and providing said item data to the decision entity;

obtaining, from the decision entity, a decided level of inspection for the item;

identifying instances in which the predicted level of inspection for the item differs from the decided level of inspection for the item; and

for each said instance, in the event that a monitoring metric is greater than a selected threshold, outputting a command signal to investigate the decided level of inspection, wherein the monitoring metric is indicative of a likelihood that the difference in level of inspection should be investigated and is determined based on an indication

of: (i) the predicted level of inspection for the item, and (ii) the decided level of inspection for the item, wherein outputting a command signal comprises triggering an override action so that the item in transit is assigned a different level of inspection to the decided level of inspection, and the method comprises controlling inspection of the item according to the different level of inspection.

20. A computer readable non-transitory storage medium comprising a program for a computer configured to cause a processor to perform the method of any of claims 18 to 19.