

WHAT IS CLAIMED IS:

1. A method of determining exposure of a media to an item of interest, the method comprising:

providing the media at a first location, wherein the media has a unique
5 identifier;

determining the unique identifier of the media at a second location;

creating a first image of the media;

applying, to the media, detection material sensitive to the item of interest,

wherein:

10 the item of interest is one of a chemical, a biologic compound,
or an explosive; and

the applying occurs at the second location;

creating, at the second location, a second image of the media;

15 analyzing the first image and the second image to determine if the detection
material has sensed the item of interest, wherein the analyzing includes determining an
optical change between the first image and the second image; and

indicating a result based, at least in part, on the analyzing.

2. The method of determining exposure of the media to the item of
interest as recited in claim 1, wherein the first image of the media, the second image of the
20 media, or both, utilize at least one optical technology from the group consisting of:

a charge coupled device (CCD),

a digital light processor (DLP), and

an infrared (IR) sensor.

3. The method of determining exposure of the media to the item of
25 interest as recited in claim 1, wherein the creating the first image of the media occurs at the
second location.

4. The method of determining exposure of the media to the item of
interest as recited in claim 1, further comprising determining an identity of a user.

5. The method of determining exposure of the media to the item of
30 interest as recited in claim 4, further comprising associating the identity of the user with the
unique identifier of the media.

6. The method of determining exposure of the media to the item of interest as recited in claim 5, further comprising verifying, at the second location, the identity of the user.

7. The method of determining exposure of the media to the item of interest as recited in claim 4, wherein the determining the identity of the user includes capturing a picture of the user.

8. The method of determining exposure of the media to the item of interest as recited in claim 1, wherein the determining the unique identifier of the media at the second location includes using at least one technology from the group consisting of:
10 radio frequency identification (RFID),
bar code scanning,
optical imaging, and
magnetic stripe reading.

9. The method of determining exposure of the media to the item of interest as recited in claim 1, wherein applying detection material to the media includes using
15 an adhesive frame, sticker, magazine, or roll feed.

10. The method of determining exposure of the media to the item of interest as recited in claim 1, further including creating, at the second location, an adhesive area on the media.

11. The method of determining exposure of the media to the item of interest as recited in claim 10, wherein the creating the adhesive area on the media includes at least one of:
20 applying an adhesive material to the media, or
exposing an adhesive material of the media.

12. The method of determining exposure of the media to the item of interest as recited in claim 10, wherein the adhesive area causes adhesion of particles using at least one of:
25 chemical adhesion, or
electrical charge.

13. A device for determining exposure of a media to an item of interest, the device comprising:

a media imager configured to create at least one image of the media;

5 a detection material applicator configured to apply, to the media, detection material sensitive to the item of interest, wherein the item of interest is one of a chemical, a biologic compound, or an explosive;

a processing unit configured to analyze the at least one image of the media to determine if the detection material has sensed the item of interest based, at least in part, on an optical characteristic of the detection material in the at least one image; and

10 an analysis indicator configured to indicate a result based, at least in part, on an analysis of the at least one image of the media.

14. The device for determining exposure of the media to the item of interest as recited in claim 13, wherein the media imager is configured to create a first image and a second image, the first image being created before the detection material is applied to the media, and the second image being created after the detection material is applied to the media.

15. The device for determining exposure of the media to the item of interest as recited in claim 14, wherein the processing unit is configured to determine if the detection material has sensed the item of interest based, at least in part, on an optical change of the detection material between the first image and the second image.

16. The device for determining exposure of the media to the item of interest as recited in claim 13, further comprising a camera configured to capture a picture of a user of the media.

17. The device for determining exposure of the media to the item of interest as recited in claim 13, further comprising a media reader configured to determine a unique identifier of the media.

18. The device for determining exposure of the media to the item of interest as recited in claim 17, further comprising an identification verifier configured to verify an identity of a user of the media.

19. The device for determining exposure of the media to the item of interest as recited in claim 18, wherein the processing unit is further configured to verify the identity of the user of the media based, at least in part, on a picture of the user and the unique identifier of the media.

5 20. The device for determining exposure of the media to the item of interest as recited in claim 13, wherein the media reader includes at least one device from the group consisting of:

 a radio frequency identification (RFID) reader,
 a bar code scanner,
10 an optical imager, and
 a magnetic stripe reader.

 21. The device for determining exposure of the media to the item of interest as recited in claim 13, wherein the detection material applicator is configured to use an adhesive frame, sticker, magazine, or roll feed application.

15 22. The device for determining exposure of the media to the item of interest as recited in claim 13, wherein the analysis indicator includes at least one item from the group consisting of:

 a display,
 a light-emitting diode (LED),
20 a speaker, and
 a network interface.

 23. A non-transitory machine-readable storage medium comprising instructions embodied thereon that, when executed by at least one machine, cause the at least one machine to:

25 determine a unique identifier of the media;
 create a first image of the media;
 apply, to the media, detection material sensitive to the item of interest,
 wherein the item of interest is one of a chemical, a biologic compound, or an explosive;
 create a second image of the media;

analyze the first image and the second image to determine if the detection material has sensed the item of interest, wherein the analyzing includes determining an optical change between the first image and the second image; and

indicate a result based, at least in part, on the analyzing.

5 24. The non-transitory machine-readable storage medium as recited in claim 23, wherein the instructions, when executed by at least one machine, further cause the at least one machine to:

provide the media at a first location; and

create the first image of the media at a second location.

10 25. The non-transitory machine-readable storage medium as recited in claim 23, wherein the instructions, when executed by at least one machine, further cause the at least one machine to determine an identity of a user.

15 26. The non-transitory machine-readable storage medium as recited in claim 25, wherein the instructions, when executed by at least one machine, further cause the at least one machine to associate the identity of the user with the unique identifier of the media.

20 27. The non-transitory machine-readable storage medium as recited in claim 26, wherein:
 associating the identity of the user with the unique identifier of the media is configured to occur at a first location; and
 the instructions, when executed by at least one machine, further cause the at least one machine to verify, at a second location, the identity of the user.

 28. The non-transitory machine-readable storage medium as recited in claim 25, wherein determining the identity of the user includes capturing a picture of the user.

25 29. The non-transitory machine-readable storage medium as recited in claim 23, wherein the determining the unique identifier of the media includes using at least one technology from the group consisting of:

radio frequency identification (RFID),

bar code scanning,

optical imaging, and
magnetic stripe reading.

5 30. The non-transitory machine-readable storage medium as recited in
claim 23, wherein the instructions, when executed by at least one machine, further cause the
at least one machine to apply the detection material to the media includes using an adhesive
frame, sticker, magazine, or roll feed application.

 31. The non-transitory machine-readable storage medium as recited in
claim 23, wherein the instructions, when executed by at least one machine, further cause the
at least one machine to create an adhesive area on the media.

10 32. The non-transitory machine-readable storage medium as recited in
claim 31, wherein the creating the adhesive area on the media includes at least one of:
applying an adhesive material to the media, or
exposing an adhesive material of the media.

15 33. The non-transitory machine-readable storage medium as recited in
claim 31, wherein the adhesive area is created to adhere particles using at least one of:
chemical adhesion, or
electrical charge.

What is claimed is:

1. A method of determining exposure of a media to an item of interest, the method comprising:
 - providing the media at a first location, wherein the media has a unique identifier;
 - determining the unique identifier of the media at a second location;
 - creating, at the first location, a first image of the media;
 - applying, to the media, detection material sensitive to the item of interest, wherein:
 - the item of interest is one of a chemical, a biologic compound, or an explosive; and
 - the applying occurs at the second location;
 - creating, at the second location, a second image of the media;
 - analyzing the first image and the second image to determine if the detection material has sensed the item of interest, wherein the analyzing includes determining an optical change between the first image and the second image; and
 - indicating a result based, at least in part, on the analyzing.
2. The method of determining exposure of the media to the item of interest as recited in claim 1, wherein the first image of the media, the second image of the media, or both, utilize at least one optical technology from the group consisting of:
 - a charge coupled device (CCD),
 - a digital light processor (DLP), and
 - an infrared (IR) sensor.
3. The method of determining exposure of the media to the item of interest as recited in claim 1, wherein the creating the first image of the media occurs at the second location.
4. The method of determining exposure of the media to the item of interest as recited in claim 1, further comprising determining an identity of a user.
5. The method of determining exposure of the media to the item of interest as recited in claim 4, further comprising associating the identity of the user with the unique identifier of the media.
6. The method of determining exposure of the media to the item of interest as recited in claim 5, further comprising verifying, at the second location, the identity of the user.
7. The method of determining exposure of the media to the item of interest as recited in claim 4, wherein the determining the identity of the user includes capturing a picture of the user.

8. The method of determining exposure of the media to the item of interest as recited in claim 1, wherein the determining the unique identifier of the media at the second location includes using at least one technology from the group consisting of:

- radio frequency identification (RFID),
- bar code scanning,
- optical imaging, and
- magnetic stripe reading.

9. The method of determining exposure of the media to the item of interest as recited in claim 1, wherein applying detection material to the media includes using an adhesive frame, sticker, magazine, or roll feed.

10. The method of determining exposure of the media to the item of interest as recited in claim 1, further including creating, at the second location, an adhesive area on the media.

11. The method of determining exposure of the media to the item of interest as recited in claim 10, wherein the creating the adhesive area on the media includes at least one of:

- applying an adhesive material to the media, or
- exposing an adhesive material of the media.

12. The method of determining exposure of the media to the item of interest as recited in claim 10, wherein the adhesive area causes adhesion of particles using at least one of:

- chemical adhesion, or
- electrical charge.

13. A device for determining exposure of a media to an item of interest, the device comprising:

- a media imager configured to create at least one image of the media at a first location;

- a detection material applicator configured to apply, to the media, detection material sensitive to the item of interest, wherein the item of interest is one of a chemical, a biologic compound, or an explosive;

- a processing unit configured to analyze, at a second location, the at least one image of the media to determine if the detection material has sensed the item of interest based, at least in part, on an optical characteristic of the detection material in the at least one image; and

- an analysis indicator configured to indicate a result based, at least in part, on an analysis of the at least one image of the media.

14. The device for determining exposure of the media to the item of interest as recited in claim 13, wherein the media imager is configured to create a first image and a second image, the first image being created before the detection material is applied to the media, and the second image being created after the detection material is applied to the media.

15. The device for determining exposure of the media to the item of interest as recited in claim 14, wherein the processing unit is configured to determine if the detection material has sensed the item of interest based, at least in part, on an optical change of the detection material between the first image and the second image.

16. The device for determining exposure of the media to the item of interest as recited in claim 13, further comprising a camera configured to capture a picture of a user of the media.

17. The device for determining exposure of the media to the item of interest as recited in claim 13, further comprising a media reader configured to determine a unique identifier of the media.

18. The device for determining exposure of the media to the item of interest as recited in claim 17, further comprising an identification verifier configured to verify an identity of a user of the media.

19. The device for determining exposure of the media to the item of interest as recited in claim 18, wherein the processing unit is further configured to verify the identity of the user of the media based, at least in part, on a picture of the user and the unique identifier of the media.

20. The device for determining exposure of the media to the item of interest as recited in claim 13, wherein the media reader includes at least one device from the group consisting of:

- a radio frequency identification (RFID) reader,
- a bar code scanner,
- an optical imager, and
- a magnetic stripe reader.

21. The device for determining exposure of the media to the item of interest as recited in claim 13, wherein the detection material applicator is configured to use an adhesive frame, sticker, magazine, or roll feed application.

22. The device for determining exposure of the media to the item of interest as recited in claim 13, wherein the analysis indicator includes at least one item from the group consisting of:

- a display,
- a light-emitting diode (LED),
- a speaker, and
- a network interface.

23. A non-transitory machine-readable storage medium comprising instructions embodied thereon that, when executed by at least one machine, cause the at least one machine to:

- determine a unique identifier of the media;
- create a first image of the media, at a first location;
- apply, to the media, detection material sensitive to the item of interest, wherein the item of interest is one of a chemical, a biologic compound, or an explosive;
- create a second image of the media, at a second location;
- analyze the first image and the second image to determine if the detection material has sensed the item of interest, wherein the analyzing includes determining an optical change between the first image and the second image;
- and
- indicate a result based, at least in part, on the analyzing.

24. The non-transitory machine-readable storage medium as recited in claim 23, wherein the instructions, when executed by at least one machine, further cause the at least one machine to:

- provide the media at the first location.

25. The non-transitory machine-readable storage medium as recited in claim 23, wherein the instructions, when executed by at least one machine, further cause the at least one machine to determine an identity of a user.

26. The non-transitory machine-readable storage medium as recited in claim 25, wherein the instructions, when executed by at least one machine, further cause the at least one machine to associate the identity of the user with the unique identifier of the media.

27. The non-transitory machine-readable storage medium as recited in claim 26, wherein:

associating the identity of the user with the unique identifier of the media is configured to occur at the first location; and

the instructions, when executed by at least one machine, further cause the at least one machine to verify, at the second location, the identity of the user.

28. The non-transitory machine-readable storage medium as recited in claim 25, wherein determining the identity of the user includes capturing a picture of the user.

29. The non-transitory machine-readable storage medium as recited in claim 23, wherein the determining the unique identifier of the media includes using at least one technology from the group consisting of:

- radio frequency identification (RFID),
- bar code scanning,
- optical imaging, and
- magnetic stripe reading.

30. The non-transitory machine-readable storage medium as recited in claim 23, wherein the instructions, when executed by at least one machine, further cause the at least one machine to apply the detection material to the media includes using an adhesive frame, sticker, magazine, or roll feed application.

31. The non-transitory machine-readable storage medium as recited in claim 23, wherein the instructions, when executed by at least one machine, further cause the at least one machine to create an adhesive area on the media.

32. The non-transitory machine-readable storage medium as recited in claim 31, wherein the creating the adhesive area on the media includes at least one of:

- applying an adhesive material to the media, or
- exposing an adhesive material of the media.

33. The non-transitory machine-readable storage medium as recited in claim 31, wherein the adhesive area is created to adhere particles using at least one of:

- chemical adhesion, or
- electrical charge.