

Comparison Between Claims 1-15 of U.S. Patent No. 8,510,768 and Claims 1-15 of U.S. Patent No. 10,719,848

1. A media measurement method comprising:

(a) receiving over a network, at one or more computers, data for a sequence of ~~audio~~video data samples, the ~~audio~~video data samples comprising representations of ~~audio~~video data captured at a media monitoring device, the plurality of ~~audio~~video data samples being submitted over the network;

(b) using the one or more computers to query an electronic database of a plurality of ~~audio~~video data representations and corresponding content identifiers;

(c) generating a raw play stream, the raw play stream comprising a sequence of content identification results corresponding to the sequence of ~~audio~~video data samples; wherein:

the sequence of content identification results is obtained by querying the electronic database to attempt to determine respective likely matches between respective ~~audio~~video data samples in the sequence of ~~audio~~video data samples and respective ~~audio~~video data representations in the electronic database;

a content identification result of the sequence of content identification results comprises either:

(i) a content identifier associated in the electronic database with a respective ~~audio~~video data representation that is determined to be a respective likely match with a respective one of the ~~audio~~video data samples; or

(ii) an indication of the absence of a respective likely match between a respective ~~audio~~video data sample and ~~an audio~~a video data representation in the electronic database; and

the raw play stream includes either: at least two different content identifiers obtained from the electronic database; or at least one content identifier obtained from the electronic database and at least one indication of the absence of a respective likely match between a respective ~~audio~~video data sample and ~~an audio~~a video data representation in the electronic database;

(d) scrubbing the raw play stream by analyzing sample sequence data of the raw play stream to determine whether to change a result of the sequence of content of identification results in view of a pattern of the sample sequence data of the raw play stream compared to an expected pattern of sample sequence data; and

(e) generating a clean play stream from the raw play stream by making any changes to the raw play stream that are determined to be made by the scrubbing.

2. The method of claim 1 wherein sample sequence data includes at least one of log times, content identifiers, and content offsets.

3. The method of claim 1 wherein:

scrubbing the raw play stream further comprises analyzing channel data as part of determining whether to change a result of the sequence of content of identification results.

4. The method of claim 1 wherein:

scrubbing the raw play stream further comprises using audience data as part of determining whether to change a result of the sequence of content of identification results.

5. The method of claim 1 wherein a clean play list is generated from the clean play stream.

6. The media measurement method of claim 1 wherein the plurality of ~~audio~~video data representations include a plurality of ~~audio~~video signatures.

7. The media measurement method of claim 1 wherein ~~an audio~~ video data representation of the plurality of ~~audio~~video data representations includes a plurality of signal landmarks.

8. The media measurement method of claim 1 wherein ~~an audio~~ video data representation of the plurality of ~~audio~~ video data representations includes a signal usable for generating ~~audio~~ video energy corresponding to ~~audio~~ video energy captured at the media monitoring device.

9. A computer program product in a non-transitory computer readable medium comprising instructions executable by one or more processors of one or more computers, the one or more computers being coupled to a network to receive, over the network, data for a sequence of ~~audio~~ video data samples, the ~~audio~~ video data samples comprising representations of ~~audio~~ video data captured at a media monitoring device, the plurality of ~~audio~~ video data samples being submitted over the network, the instructions comprising instructions for:

(a) using the one or more computers to query an electronic database of a plurality of ~~audio~~ video data representations and corresponding content identifiers;

(b) generating a raw play stream, the raw play stream comprising a sequence of content identification results corresponding to the sequence of ~~audio~~ video data samples; wherein:

the sequence of content identification results is obtained by querying the electronic database to attempt to determine respective likely matches between respective

~~audio~~video data samples in the sequence of ~~audio~~video data samples and respective ~~audio~~video data representations in the electronic database;

a content identification result of the sequence of content identification results comprises either:

(i) a content identifier associated in the electronic database with a respective ~~audio~~video data representation that is determined to be a respective likely match with a respective one of the ~~audio~~video data samples; or

(ii) an indication of the absence of a respective likely match between a respective ~~audio~~video data sample and ~~an audio~~ video data representation in the electronic database; and

the raw play stream includes either: at least two different content identifiers obtained from the electronic database; or at least one content identifier obtained from the electronic database and at least one indication of the absence of a respective likely match between a respective ~~audio~~video data sample and ~~an audio~~ video data representation in the electronic database;

(c) scrubbing the raw play stream by analyzing sample sequence data of the raw play stream to determine whether to change a result of the sequence of content of identification results in view of a pattern of the sample sequence data of the raw play stream compared to an expected pattern of sample sequence data; and

(d) generating a clean play stream from the raw play stream by making any changes to the raw play stream that are determined to be made by the scrubbing.

10. The computer program product of claim 9 wherein sample sequence data includes at least one of log times, content identifiers, and content offsets.

11. The computer program product of claim 9 wherein scrubbing the raw play stream further comprises analyzing channel data as part of determining whether to change a result of the sequence of content of identification results.

12. The computer program product of claim 9 wherein scrubbing the raw play stream further comprises using audience data as part of determining whether to change a result of the sequence of content of identification results.

13. The computer program product of claim 9 wherein the computer program product further comprises instructions for generating a clean play list from the clean play stream.

14. The computer program product of claim 9 wherein the plurality of ~~audio~~video data representations include a plurality of ~~audio~~video signatures.

15. The computer program product of claim 9 wherein ~~an audio~~ video data representation of the plurality of ~~audio~~ video data representations includes a plurality of signal landmarks.