

WHAT IS CLAIMED IS:

1. An apparatus for content transaction consensus, the apparatus comprising:
 - a memory configured to store computer-readable program code; and
 - a processor configured to access the memory, and execute the computer-readable program code to cause the apparatus to at least:
 - receive a request to initiate a transaction for play of video or audio content, the request being received from a data network connected device having a native player;
 - validate the transaction by consensus in a peer-to-peer network that maintains a distributed ledger;
 - store a record of the transaction in the distributed ledger only when the transaction is validated, the record including a reference file for the video or audio content with a plurality of player control parameter values and linking data for one or more designated content sources outside the peer-to-peer network; and
 - provide access to the reference file by the data network connected device to enable the data network connected device to play the video or audio content, the data network connected device being enabled to at least:
 - provide player control commands to the native player based on the player control parameter values, including player control commands directing the native player to acquire content data compatible with the native player from within a content data file of one or more of the designated content data sources via the data network using the linking data;
 - acquire content data by the native player from the one or more content sources;
 - and
 - play, by the native player, the content acquired from each content source in accordance with the player control commands;
2. The apparatus of claim 1, wherein the distributed ledger is a blockchain, and the apparatus being caused to store the record of the transaction includes being caused to record the transaction in a block of the blockchain.

3. The apparatus of claim 1, wherein the apparatus being caused to provide access to the reference file includes being caused to provide access to the distributed ledger and thereby the record of the transaction and the reference file included therein.

~~4. The apparatus of claim 1, wherein the processor is configured to execute the computer readable program code to cause the apparatus to further generate the reference file in response to the request.~~

~~5. The apparatus of claim 1, wherein the processor is configured to execute the computer readable program code to cause the apparatus to further generate the reference file before the request is received.~~

46. An apparatus for content transaction consensus, the apparatus comprising:
a memory configured to store computer-readable program code; and
a processor configured to access the memory, and execute the computer-readable program code to cause the apparatus to at least:
receive a request to initiate a transaction for play of video or audio content, the request being received from a data network connected device having a native player;
cause validation of the transaction by consensus in a peer-to-peer network that maintains a distributed ledger;
cause storage of a record of the transaction in the distributed ledger only when the transaction is validated, the record including a reference file for the video or audio content with a plurality of player control parameter values and linking data for one or more designated content sources outside the peer-to-peer network; and
provide access to the reference file by the data network connected device to enable the data network connected device to play the video or audio content, the data network connected device being enabled to at least:
provide player control commands to the native player based on the player control parameter values, including player control commands directing the native player to acquire content data compatible with the native player from within a content data file of

one or more of the designated content data sources via the data network using the linking data;

acquire content data by the native player from the one or more content sources;

and

play, by the native player, the content acquired from each content source in accordance with the player control commands;

wherein the processor is configured to execute the computer-readable program code to cause the apparatus to further generate the reference file in response to the request.

57. A method of content transaction consensus, the method comprising:

receiving a request to initiate a transaction for play of video or audio content, the request being received from a data network connected device having a native player;

validating the transaction by consensus in a peer-to-peer network that maintains a distributed ledger;

generating a reference file in response to the request;

storing a record of the transaction in the distributed ledger only when the transaction is validated, the record including ~~a~~ the reference file for the video or audio content with a plurality of player control parameter values and linking data for one or more designated content sources outside the peer-to-peer network; and

providing access to the reference file by the data network connected device to enable the data network connected device to play the video or audio content, the data network connected device:

providing player control commands to the native player based on the player control parameter values, including player control commands directing the native player to acquire content data compatible with the native player from within a content data file of one or more of the designated content data sources via the data network using the linking data;

acquiring content data by the native player from the one or more content sources;

and

playing, by the native player, the content acquired from each content source in accordance with the player control commands.

68. The method of claim ~~7~~5 wherein the distributed ledger is a blockchain, and storing the record of the transaction includes recording the transaction in a block of the blockchain.

79. The method of claim ~~7~~5, wherein providing access to the reference file includes providing access to the distributed ledger and thereby the record of the transaction and the reference file included therein.

~~10. The method of claim 7 further comprising generating the reference file in response to the request.~~

~~11. The method of claim 7 further comprising generating the reference file before the request is received.~~

~~8~~12. A method of content transaction consensus, the method comprising:
receiving a request to initiate a transaction for play of video or audio content, the request being received from a data network connected device having a native player;
causing validation of the transaction by consensus in a peer-to-peer network that maintains a distributed ledger;

generating a reference file in response to the request

causing storage of a record of the transaction in the distributed ledger only when the transaction is validated, the record including ~~a~~the reference file for the video or audio content with a plurality of player control parameter values and linking data for one or more designated content sources outside the peer-to-peer network; and

providing access to the reference file by the data network connected device to enable the data network connected device to play the video or audio content, the data network connected device:

providing player control commands to the native player based on the player control parameter values, including player control commands directing the native player to acquire content data compatible with the native player from within a content data file

of one or more of the designated content data sources via the data network using the linking data;

acquiring content data by the native player from the one or more content sources;

and

playing, by the native player, the content acquired from each content source in accordance with the player control commands.

913. A computer-readable storage medium for content transaction consensus, the computer-readable storage medium being non-transitory and having computer-readable program code stored therein that in response to execution by a processor, causes an apparatus to at least:

receive a request to initiate a transaction for play of video or audio content, the request being received from a data network connected device having a native player;

validate the transaction by consensus in a peer-to-peer network that maintains a distributed ledger;

generate a reference file in response to the request;

store a record of the transaction in the distributed ledger only when the transaction is validated, the record including the a reference file for the video or audio content with a plurality of player control parameter values and linking data for one or more designated content sources outside the peer-to-peer network; and

provide access to the reference file by the data network connected device to enable the data network connected device to play the video or audio content, the data network connected device being enabled to at least:

provide player control commands to the native player based on the player control parameter values, including player control commands directing the native player to acquire content data compatible with the native player from within a content data file of one or more of the designated content data sources via the data network using the linking data;

acquire content data by the native player from the one or more content sources;

and

play, by the native player, the content acquired from each content source in accordance with the player control commands.

104. The computer-readable storage medium of claim ~~139~~, wherein the distributed ledger is a blockchain, and the apparatus being caused to store the record of the transaction includes being caused to record the transaction in a block of the blockchain.

115. The computer-readable storage medium of claim ~~139~~, wherein the apparatus being caused to provide access to the reference file includes being caused to provide access to the distributed ledger and thereby the record of the transaction and the reference file included therein.

~~16.—The computer readable storage medium of claim 13 having computer readable program code stored therein that in response to execution by the processor, causes the apparatus to further generate the reference file in response to the request.~~

~~17.—The computer readable storage medium of claim 13 having computer readable program code stored therein that in response to execution by the processor, causes the apparatus to further generate the reference file before the request is received.~~

128. A computer-readable storage medium for content transaction consensus, the computer-readable storage medium being non-transitory and having computer-readable program code stored therein that in response to execution by a processor, causes an apparatus to at least:

receive a request to initiate a transaction for play of video or audio content, the request being received from a data network connected device having a native player;

cause validation of the transaction by consensus in a peer-to-peer network that maintains a distributed ledger;

generate a reference file in response to the request;

cause storage of a record of the transaction in the distributed ledger only when the transaction is validated, the record including ~~a~~the reference file for the video or audio content with a plurality of player control parameter values and linking data for one or more designated content sources outside the peer-to-peer network; and

provide access to the reference file by the data network connected device to enable the data network connected device to play the video or audio content, the data network connected device being enabled to at least:

- provide player control commands to the native player based on the player control parameter values, including player control commands directing the native player to acquire content data compatible with the native player from within a content data file of one or more of the designated content data sources via the data network using the linking data;

- acquire content data by the native player from the one or more content sources;

- and

- play, by the native player, the content acquired from each content source in accordance with the player control commands.