

CLAIMS

1. A method for presenting a user interface to an end user to facilitate the ~~searching~~,
browsing and/or navigation of digital media content, in addition to searching of digital
5 media content, the method comprising the steps of:
 - (a) analysing the digital media content to create “hooks” related to the digital media
content, or retrieving “hooks” in the digital media content, wherein the “hooks” consist
of one or more extracted sections of a track of audio and/or video content which are
10 identified as (i) being representative of that track as a whole; or (ii) being the most
recognisable part or parts of that track; or (iii) being the “best” parts of that track,
however defined; or (iv) being related to one or more portions of another track,
including but not limited to such portions of a track as are similar to portions of other
tracks, such as tracks which start in a similar manner, however defined; or (v) being
evocative of that track, however defined; or (vi) a combination of one or more of the
15 listed criteria; and wherein the “hooks” are identified using digital signal processing
(“DSP”) technology, and
 - (b) replacing or augmenting a graphical or textual representation of the digital media
content with the “hooks.”, wherein a set of tracks may be previewed by means of the
playback of a hook for that set, that hook being created by combining the per-track
20 hooks of the tracks which constitute that set of tracks, and wherein the said set of tracks
consists of tracks in a playlist, a set of search results, a group of tracks formed according
to metadata or any other grouping of tracks.
2. Method of Claim 1 further comprising the step of: presenting the “hooks” to the
end user, so that the end user can search, browse and/or navigate the digital media
25 content using the “hooks”.
3. Method of any previous Claim, the method further comprising the step of:
providing a unifying sound in the background to conceal any silent holes or gaps in
playback.
4. The method of claim 3 where the unifying sound is played in the background to
30 conceal any silent holes or gaps in playback and/or to provide a consistent aural cue that
the audio user interface is in operation.

5. The method of claim 4 where the unifying sound consists of a hum, a crackling sound, white noise, audience sounds, a station identification signifier, or any other audio and/or video content.

~~6. The method of any preceding claim where the “hook” consists of one or more extracted sections of a track of audio and/or video content which are identified as (i) being representative of that track as a whole; or (ii) being the most recognisable part or parts of that track; or (iii) being the “best” parts of that track, however defined; or (iv) being related to one or more portions of another track, including but not limited to such portions of a track as are similar to portions of other tracks, such as tracks which start in a similar manner, however defined; or (v) being evocative of that track, however defined; or (vi) a combination of one or more of the listed criteria.~~

~~76.~~ The method of any preceding claim where in the “hooks” ~~is~~ are identified additionally ~~using one or more of digital signal processing (“DSP”) technology,~~ manually or by any other method.

~~87.~~ The method of any preceding claim where the “hook” consists of one or more hooks from one or more tracks (“per-track hooks”), such individual hooks being combined to constitute a single hook by means of one or more of cross-fading, juxtaposition or any other technique to combine digital media content.

~~98.~~ The method of claim ~~8-7~~ where the decision as to which method to utilise when combining multiple per-track hooks into a single hook is determined by DSP analysis of the individual tracks and/or the individual per-track hooks.

~~10. The method of any preceding claim where a set of tracks may be previewed by means of the playback of a hook for that set, that hook being created by combining the per track hooks of the tracks which constitute that set of tracks.~~

~~11. The method of claim 10 where the said set of tracks consists of tracks in a playlist, a set of search results, a group of tracks formed according to metadata or any other grouping of tracks.~~

~~129.~~ The method of claim ~~11~~ where the metadata using to form a group of tracks consists of one or more of the artist, performer, genre, year of release or re-release or creation of tracks, the release or album on which the track or tracks appear, the popularity or tracks within a given group of users of a service or any other metadata recorded about tracks.

~~43~~10. The method of any preceding claim where the playback of a hook for a track or a set of tracks is triggered by an action performed by the user of a service.

~~44~~11. The method of any preceding claim where an action performed by the user of a service triggers the playback of the per-track hook of a subsequent track while the
5 current track continues playing, where the said hook is faded in and then out while the current track continues playing or where the current track is paused during playback of the hook or where the currently playing track is replaced by the hook for the duration of the hook, whether or not the currently playing track restarts again subsequently, or by any other means.

10 ~~45~~12. The method of any preceding claim where the decision as to how to play a hook is made using DSP processing to determine the volume at which the hook is played and/or the playback technique employed so as to ensure that the hook is clearly audible without being intrusive, according to parameters defined for a particular service, device or user.

15 ~~46~~13. The method of any preceding claim where an action performed by the user of a service during playback of hook is able to trigger playback of the track from which a particular per-track hook is derived.

~~47~~14. The method of claim ~~46~~13 where playback of the said track commences at the start of that track, at the point of that track from which the hook was extracted or from
20 any other point.

~~48~~15. The method of any preceding claim where the said action consists of one or more of a mouse click on a graphical user interface element, a tap on a specified region of a touch-sensitive interface, a specific keyboard command, a specific vocal command, a specific gesture identified via a mouse, a touch-sensitive or motion-sensitive interface or
25 any other machine-recognisable action.

~~49~~16. The method of any preceding claim where hooks for tracks and/or sets of tracks are played in the background while the user is browsing said track or sets of tracks.

~~20~~17. The method of any preceding claim where playing audio and/or video content in the background consists of one or more of cross-fading between hooks, including but
30 not limited to per-track hooks; or playing hooks at a lower than usual volume; or playing hooks using 3D Audio Effect techniques such that the sounds appear to originate from a specific location, such as behind or to the side of the listener; or any other method or

combination of methods designated as signifying that the hooks are being played in the background.

~~24~~18. The method of any preceding claim where the user of a service is able to browse tracks or sets of tracks by browsing the hooks for those tracks or sets of tracks in addition to, or in the place of, browsing via a graphical and/or textual interface.

~~22~~19. The method of any preceding claim where, in addition to the playback of hooks, audio narration replaces or augments any or all other visual elements of a graphical interface to enable access to a service by blind or partially sighted individuals.

~~23~~20. Method of any previous Claim, wherein the method is for presenting an audio user interface (“AUI”) to an end user.

~~24~~21. Method of any previous Claim, wherein the “hooks” include audio “hooks”.

~~25~~22. The method of any preceding claim, wherein the method is applied in a system comprising a display, a speaker and a computer, the computer configured to display the graphical or textual representation of the digital media content on the display, and the computer further configured to output the “hooks” using the display and/or the speaker.

~~26~~23. Method of Claim ~~25~~22, wherein the display comprises a touch screen.

~~27~~24. Method of any of Claims ~~25~~22 to ~~26~~23, wherein the system is a personal, portable device.

~~28~~25. Method of Claim ~~27~~24, wherein the personal, portable device is a mobile phone.

~~29~~26. Method of any of Claims ~~25~~22 to ~~28~~25, wherein the system includes a microphone, and the computer is configured to receive voice input through the microphone.

~~30~~27. Method of any of Claims ~~25~~22 to ~~29~~26, wherein the system is operable to receive a user selection of digital media content.

~~31~~28. Method of any preceding Claim, wherein the digital media content is digital music content.

~~32~~29. Method of any of Claims 1 to ~~30~~27, wherein the digital media content is digital video content.

~~33~~30. Method of Claim ~~32~~29, wherein the digital video content is movies, or television shows or computer games.

~~34~~31. System comprising a display, a speaker and a computer system, the computer system configured to display graphical or textual representation of the digital media content on the display, the computer system further configured to output “hooks” relating to the digital media content using the display and/or the speaker, the system
 5 operable to present a user interface to an end user to facilitate ~~searching~~, browsing and/or navigation of digital media content, in addition to searching of digital media content, the system further operable to:

(a) analyse the digital media content to create the “hooks” related to the digital media content, or to retrieve the “hooks” in the digital media content, wherein the “hooks”
 10 consist of one or more extracted sections of a track of audio and/or video content which are identified as (i) being representative of that track as a whole; or (ii) being the most recognisable part or parts of that track; or (iii) being the “best” parts of that track, however defined; or (iv) being related to one or more portions of another track, including but not limited to such portions of a track as are similar to portions of other
 15 tracks, such as tracks which start in a similar manner, however defined; or (v) being evocative of that track, however defined; or (vi) a combination of one or more of the listed criteria; and wherein the “hooks” are identified using digital signal processing (“DSP”) technology, and

(b) to replace or to augment the graphical or textual representation of the digital media
 20 content with the “hooks”, wherein a set of tracks may be previewed by means of the playback of a hook for that set, that hook being created by combining the per-track hooks of the tracks which constitute that set of tracks, and wherein the said set of tracks consists of tracks in a playlist, a set of search results, a group of tracks formed according to metadata or any other grouping of tracks.

25 ~~35~~32. System of Claim ~~34~~31, operable to implement the methods of any of Claims 1 to ~~33~~30.

~~36~~33. Computer program product embodied on a non-transitory storage medium or on a cellular mobile telephone device or on another hardware device, the computer program product operable to perform a method for presenting a user interface to an end user to
 30 facilitate the ~~searching~~, browsing and/or navigation of digital media content, in addition to searching of digital media content, the method comprising the steps of:

(a) analysing the digital media content to create “hooks” related to the digital media content, or retrieving “hooks” in the digital media content, wherein the “hooks” consist

- of one or more extracted sections of a track of audio and/or video content which are identified as (i) being representative of that track as a whole; or (ii) being the most recognisable part or parts of that track; or (iii) being the “best” parts of that track, however defined; or (iv) being related to one or more portions of another track,
- 5 including but not limited to such portions of a track as are similar to portions of other tracks, such as tracks which start in a similar manner, however defined; or (v) being evocative of that track, however defined; or (vi) a combination of one or more of the listed criteria; and wherein the “hooks” are identified using digital signal processing (“DSP”) technology, and
- 10 (b) replacing or augmenting a graphical or textual representation of the digital media content with the “hooks:”, wherein a set of tracks may be previewed by means of the playback of a hook for that set, that hook being created by combining the per-track hooks of the tracks which constitute that set of tracks, and wherein the said set of tracks consists of tracks in a playlist, a set of search results, a group of tracks formed according
- 15 to metadata or any other grouping of tracks.

~~37~~34. Computer program product of Claim ~~36~~33, operable to implement the methods of any of Claims 1 to ~~33~~30.