

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

S.I.SV.EL. SOCIETA ITALIANA PER LO  
SVILUPPO DELL'ELETTRONICA S.P.A,

Plaintiff,

v.

SPOTIFY USA INC.

Defendant.

Civil Action No. \_\_\_\_\_

**JURY TRIAL DEMANDED**

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff S.I.SV.EL. Societa Italiana Per Lo Sviluppo Dell'electronica S.p.A. ("Sisvel" or "Plaintiff"), for its Complaint against Defendant Spotify USA Inc., ("Spotify" or "Defendant") alleges the following:

**NATURE OF THE ACTION**

1. This is an action for patent infringement arising under the Patent Laws of the United States, 35 U.S.C. § 1 *et seq.*

**THE PARTIES**

2. Plaintiff is a corporation organized under the laws of Italy with a place of business at Via Sestriere, 100 10060 None Torinese (TO), Italy.

3. Upon information and belief, Spotify is a corporation organized and existing under the laws of Delaware, with a place of business at 45 W. 18th St., 7th Floor, New York, NY 10011 and can be served through its Delaware registered agent, the National Registered Agents, Inc., 160 Greentree Dr., Suite 101, Dover, DE 19904. Upon information and belief, Spotify sells and offers to sell products and services throughout the United States, including in this judicial district, and introduces products and services into the stream of commerce and that incorporate

infringing technology knowing that they would be sold in this judicial district and elsewhere in the United States.

### **JURISDICTION AND VENUE**

4. This is an action for patent infringement arising under the Patent Laws of the United States, Title 35 of the United States Code.

5. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1338(a).

6. Venue is proper in this judicial district under 28 U.S.C. §1400(b). On information and belief, Spotify is incorporated in the State of Delaware.

7. On information and belief, Defendant is subject to this Court's general and specific personal jurisdiction because Defendant has sufficient minimum contacts within the State of Delaware and this District, pursuant to due process and/or the Delaware Long Arm Statute because Defendant purposefully availed itself of the privileges of conducting business in the State of Delaware and in this District, because Defendant regularly conducts and solicits business within the State of Delaware and within this District, and because Plaintiff's causes of action arise directly from Defendant's business contacts and other activities in the State of Delaware and this District. Further, this Court has personal jurisdiction over Spotify because it is incorporated in Delaware and has purposely availed itself of the privileges and benefits of the laws of the State of Delaware.

### **COUNT I – INFRINGEMENT OF U.S. PATENT NO. 7,412,202**

8. The allegations set forth in the foregoing paragraphs 1 through 7 are incorporated into this First Claim for Relief.

9. On August 12, 2008, U.S. Patent No. 7,412,202 ("the '202 patent"), entitled "Method or Apparatus for Generating Recommendations Based on User Preferences and

Environmental Characteristics,” was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the ‘202 patent is attached as Exhibit 1.

10. The inventions of the ‘202 patent resolve technical problems related to recommendation systems and methods. For example, the inventions allow parties to correlate user preferences in light of a number of attributes and certain environmental conditions to provide recommended content to a given user.

11. The claims of the ‘202 patent do not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claims of the ‘202 patent recite one or more inventive concepts that are rooted in computerized technology, and overcome problems specifically arising in that realm. For example, the inventions of the ‘202 patent allow more efficient and beneficial access to large electronic content repositories, and improve access to such electronic content repositories through the use of computerized tools unrelated to pre-Internet business practices.

12. The claims of the ‘202 patent recite an invention that is not merely the routine or conventional use of recommendation techniques. Instead, when recommending an item, the disclosed invention and recommender evaluates user preferences and in light of environmental conditions. A recommendation score can be generated for each electronic content item based on the user’s demonstrated preferences under similar environmental conditions, such as in the same or a similar geographic area or under similar weather conditions. The ‘202 patent claims thus specify how datasets related to user preferences and environmental conditions are manipulated to yield a desired result.

13. The technology claimed in the '202 patent does not preempt all ways of recommending electronic content, nor preempt the use of all recommendation engines, nor preempt any other well-known or prior art technology.

14. Accordingly, each claim of the '202 patent recites a combination of elements sufficient to ensure that the claim in practice amounts to significantly more than a patent on an ineligible concept.

15. Plaintiff is the assignee and owner of the right, title and interest in and to the '202 patent, including the right to assert all causes of action arising under said patent and the right to any remedies for infringement of it.

16. Upon information and belief, Defendant has and continues to directly infringe at least claims 1, 3, and 5 of the '202 patent by making, using, selling, importing and/or providing and causing to be used Spotify content streaming services in which the services utilize a recommendation engine that retrieves the user preferences and evaluates the current environmental conditions allowing for a recommendation score to be generated for each available item based on the user's demonstrated preferences under similar environmental conditions (the "Accused Instrumentalities").

17. In particular, claim 1 of the '202 patent recites a method for recommending an item to a user comprising the following steps: (1) observing one or more environmental characteristics; (2) learning preferences of said user for each item to be recommended while exposed to and under the one or more observed environmental characteristics; and (3) generating a recommendation score for an item based on features of the item and the learned preferences of the user under the one or more observed environmental characteristics. The one or more observed environmental characteristics includes at least one of a weather condition, a

characteristic of motion of said user, a location, and one or more characteristics of the location and each of the one or more observed environmental characteristics is associated with a weight assigned by the user.

18. The Accused Instrumentalities infringe claim 1 of the '202 patent. *See, e.g.*, <https://www.spotify.com/us/legal/privacy-policy>; U.S. Pat. No. 7,412,202 at 2:4-7, 5:4-10; <https://developer.spotify.com/news-stories/2016/03/29/audio-features-recommendations-user-taste>; [https://support.spotify.com/us/using\\_spotify/features/running/](https://support.spotify.com/us/using_spotify/features/running/); <https://www.spotify.com/us/running/>.

19. Claim 3 of the '202 patent recites the method of claim 1 where the item is content.

20. The Accused Instrumentalities infringe claim 3 of the '202 patent. *See, e.g.*, <https://www.spotify.com/us/running/>.

21. Claim 5 of the '202 patent recites the method of claim 1 where the learned preferences of the user under the one or more environmental characteristics are recorded in a profile.

22. The Accused Instrumentalities infringe claim 5 of the '202 patent. *See, e.g.*, [https://support.spotify.com/us/using\\_spotify/lifestyle\\_features/running/](https://support.spotify.com/us/using_spotify/lifestyle_features/running/).

23. On information and belief, these Accused Instrumentalities are used, marketed, provided to, and/or used by or for Defendant's partners, clients, customers and end users across the country and in this District.

24. Defendant was made aware of the '202 patent and its infringement thereof at least as early as March 15, 2017 when Defendant received a notice letter dated March 13, 2017.

25. Upon information and belief, since at least the time Defendant received notice, Defendant has induced and continues to induce others to infringe at least one claim of the '202

patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe, including but not limited to Defendant's partners, clients, customers, and end users, whose use of the Accused Instrumentalities constitutes direct infringement of at least one claim of the '202 patent.

26. In particular, Defendant's actions that aid and abet others such as its partners, customers, clients, and end users to infringe include advertising and distributing the Accused Instrumentalities and providing instruction materials, training, and services regarding the Accused Instrumentalities. On information and belief, Defendant has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Defendant has had actual knowledge of the '202 patent and knowledge that its acts were inducing infringement of the '202 patent since at least the date Spotify received notice that such activities infringed the '202 patent.

27. Upon information and belief, Defendant is liable as a contributory infringer of the '202 patent under 35 U.S.C. § 271(c) by offering to sell, selling and importing into the United States multimedia streaming platforms to be especially made or adapted for use in an infringement of the '202 patent. The Accused Instrumentalities are a material component for use in practicing the '202 patent and are specifically made and are not a staple article of commerce suitable for substantial non-infringing use.

28. Since at least March 15, 2017, Defendant's infringement has been willful.

29. Plaintiff has been harmed by Defendant's infringing activities.

**COUNT II – INFRINGEMENT OF U.S. PATENT NO. 8,490,123**

30. The allegations set forth in the foregoing paragraphs 1 through 29 are incorporated into this Second Claim for Relief.

31. On July 26, 2013, U.S. Patent No. 8,490,123 (“the ‘123 patent”), entitled “Method and Device for Generating a User Profile on the Basis of Playlists,” was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the ‘123 patent is attached as Exhibit 2.

32. The inventions of the ‘123 patent resolve technical problems related to recommendation systems and generating user profiles. For example, the inventions solve the so-called “cold start” problem because they generate a user profile and recommendations on the basis of the user’s previously created playlists and properties derived from them.

33. The claims of the ‘123 patent do not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claims of the ‘123 patent recite one or more inventive concepts that are rooted in computerized technology, and overcome problems specifically arising in that realm. For example, the inventions of the ‘123 patent allow more efficient and beneficial access to large electronic content repositories, and improve access to such electronic content repositories through the use of computerized tools unrelated to pre-Internet business practices.

34. The claims of the ‘123 patent recite an invention that is not merely the routine or conventional use of user profiles or electronic content. Instead, when generating a user profile, many playlists, including playlists from other users, may be considered and analyzed, thereby generating a more reliable user profile. Some aspects that may be taken into account include frequency of occurrence, creation date of the playlist, and relation between content items (songs, video, etc.) in one or more playlists. The ‘123 patent claims thus specify how playlist and content analysis are manipulated to yield a desired result.

35. The technology claimed in the '123 patent does not preempt all ways of generating user profiles or recommending electronic content, nor preempt the use of all recommendation engines, nor preempt any other well-known or prior art technology.

36. Accordingly, each claim of the '123 patent recites a combination of elements sufficient to ensure that the claim in practice amounts to significantly more than a patent on an ineligible concept.

37. Plaintiff is the assignee and owner of the right, title and interest in and to the '123 patent, including the right to assert all causes of action arising under said patent and the right to any remedies for infringement of it.

38. Upon information and belief, Defendant has and continues to directly infringe at least claims 1, 2, 3, 5, 9, 10, 13, and 18 of the '123 patent by making, using, selling, importing and/or providing and causing to be used Spotify content streaming services in which the services utilize a recommendation engine and profile generators that consider and analyze various aspects of playlists including frequency of occurrence, creation date of the playlist, and relation between content items (songs, video, etc.) (the "Accused Instrumentalities").

39. In particular, claim 1 of the '123 patent recites a method of generating a user profile for a given user from at least one first playlist including a first sequence of content and associated with the given user and stored on a media device.

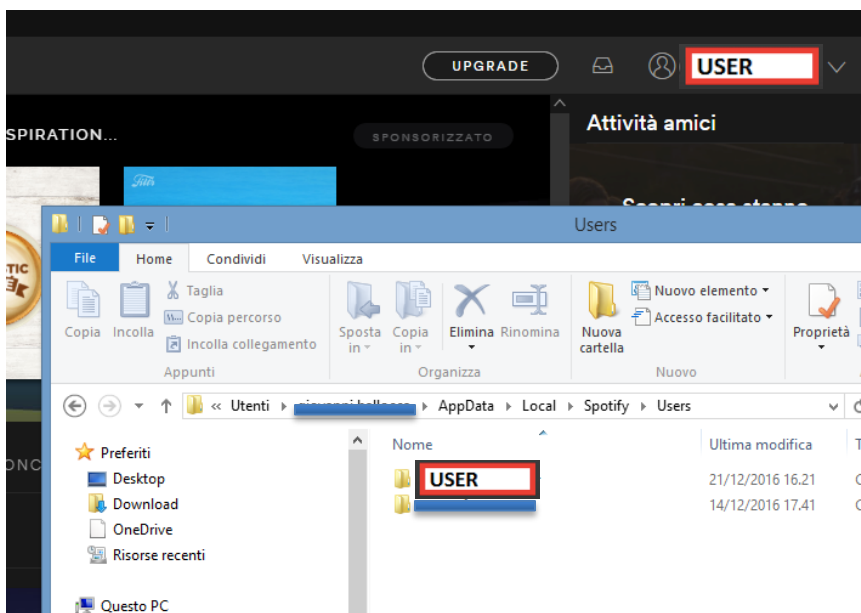
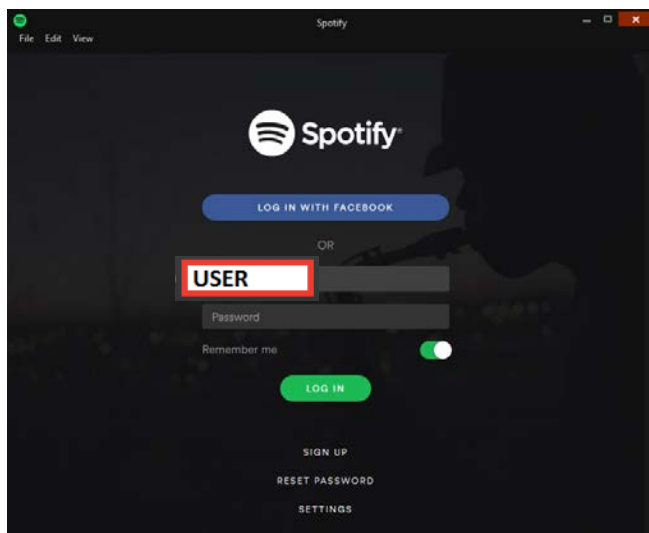
40. The method comprises the following steps: (1) automatically searching for the at least one first playlist among a plurality of playlists, wherein the plurality of playlists includes at least one of a second playlist and a third playlist. The second playlist has a second sequence of content and is associated with a different user and the third playlist has a third sequence of content and is associated with the given user. Each playlist of the plurality of playlists includes



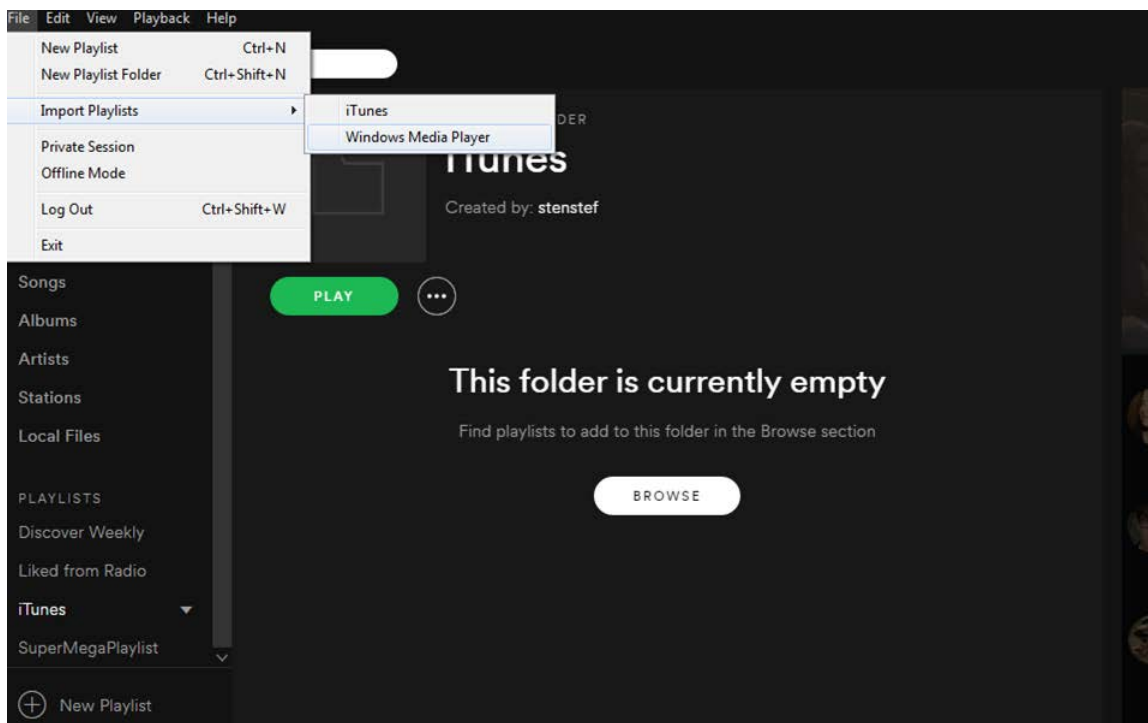
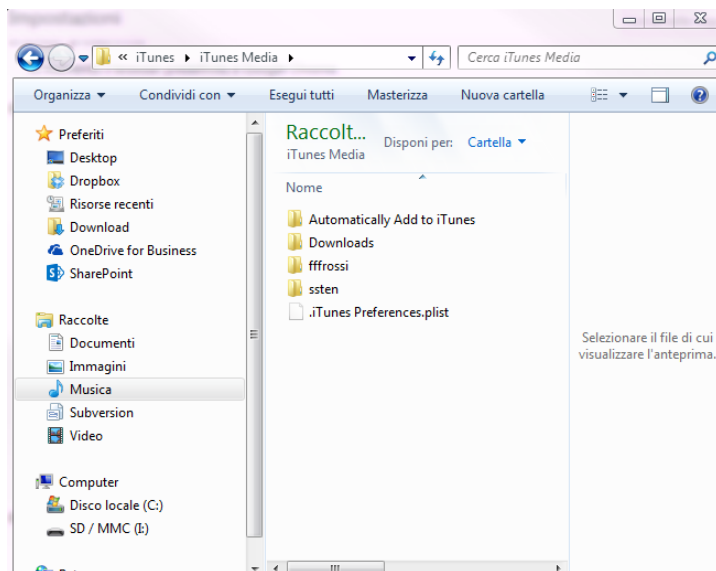
at least one identifying characteristic of content stored on the media device; (2) analyzing the at least one first playlist and automatically deriving from the at least one analyzed first playlist at least one playlist feature expressing at least one property of the at least one first playlist, the at least one playlist feature comprising an occurrence frequency or at least a content relationship of the plurality of playlists; and (3) automatically generating a user profile for the given user based on the analyzed at least one first playlist and the derived at least one playlist feature. Further, at least one of the said searching, analyzing, and generating comprises use of computerized hardware including a processing element.

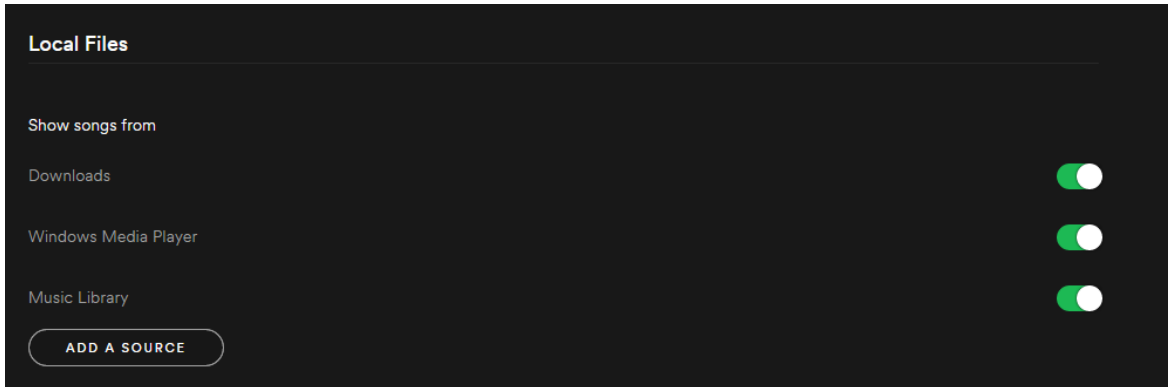
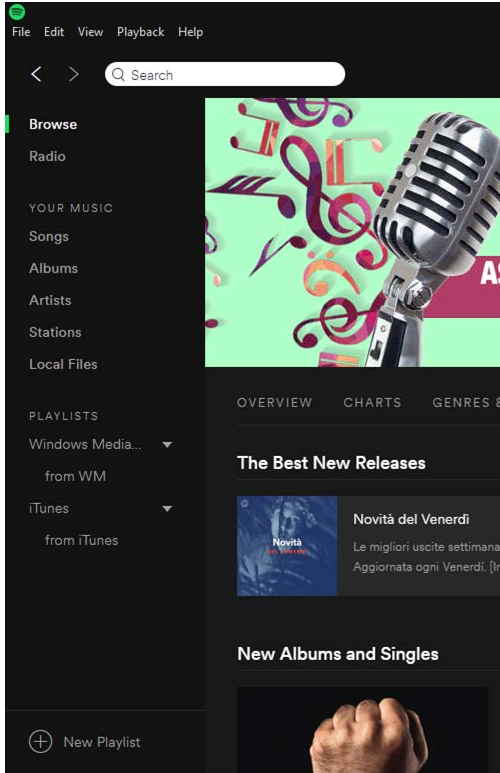
41. The Accused Instrumentalities infringe claim 1 of the '123 patent. *See, e.g.*, <https://developer.spotify.com/web-api/get-users-profile/>; [https://support.spotify.com/us/using\\_spotify/features/listen-to-local-files/](https://support.spotify.com/us/using_spotify/features/listen-to-local-files/); U.S. Pat. No. 8,490,123 at 2:28-33, 4:18-57; <https://developer.spotify.com/web-api/get-users-top-artists-and-tracks/>; <https://developer.spotify.com/web-api/object-model/#playlist-object-full>; <https://www.spotify.com/us/legal/privacy-policy/>; <https://developer.spotify.com/web-api/endpoint-reference/>; <https://www.spotify.com/us/>.

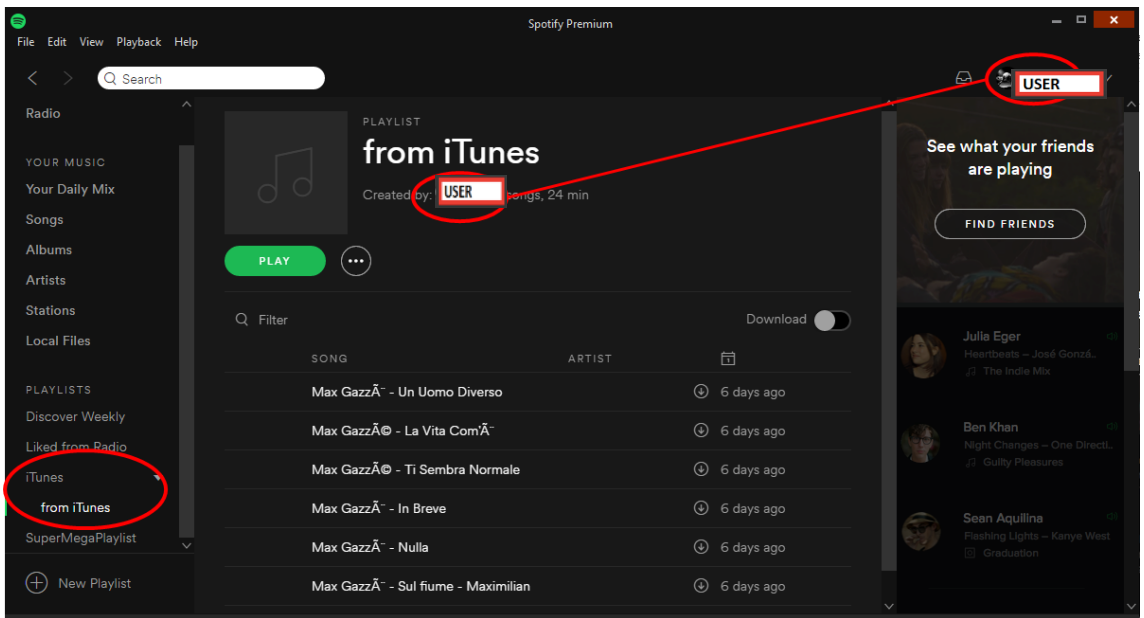
42. The first time a given user accesses Spotify on a given device, at least a local copy of a profile is created.



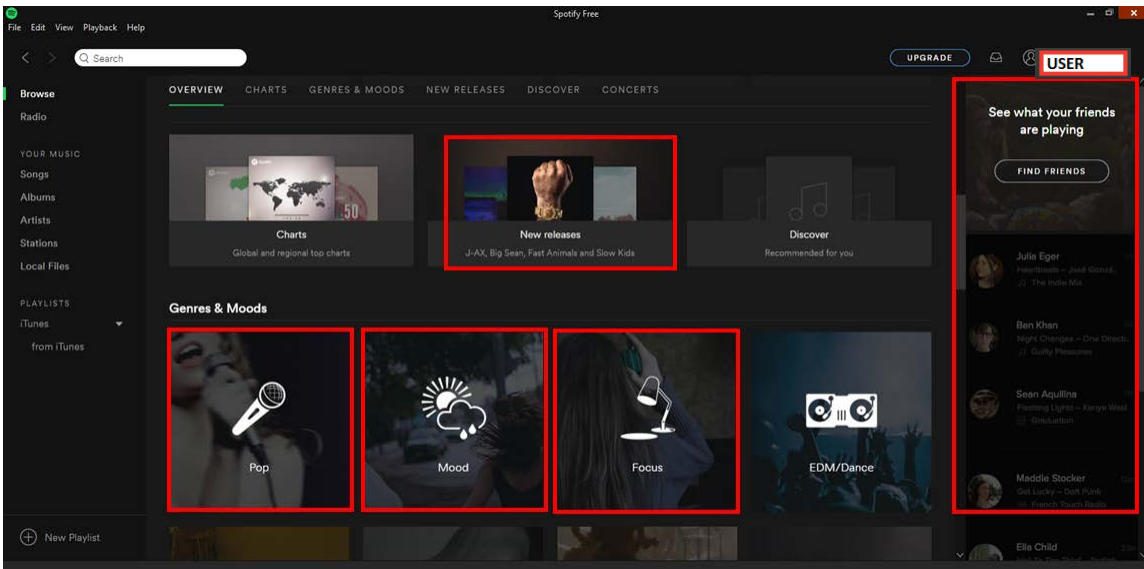
43. In Spotify, playlists can be: (1) automatically imported by the user in the Spotify application; (2) automatically searched by Spotify in specific directories; (3) made available by other users and Spotify curators.

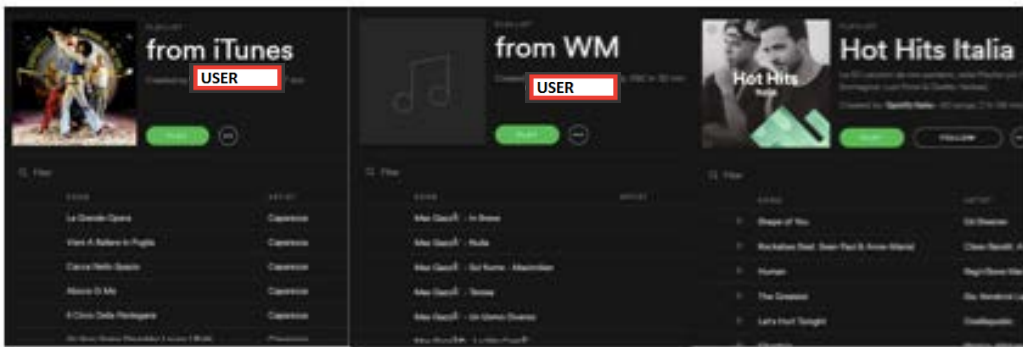
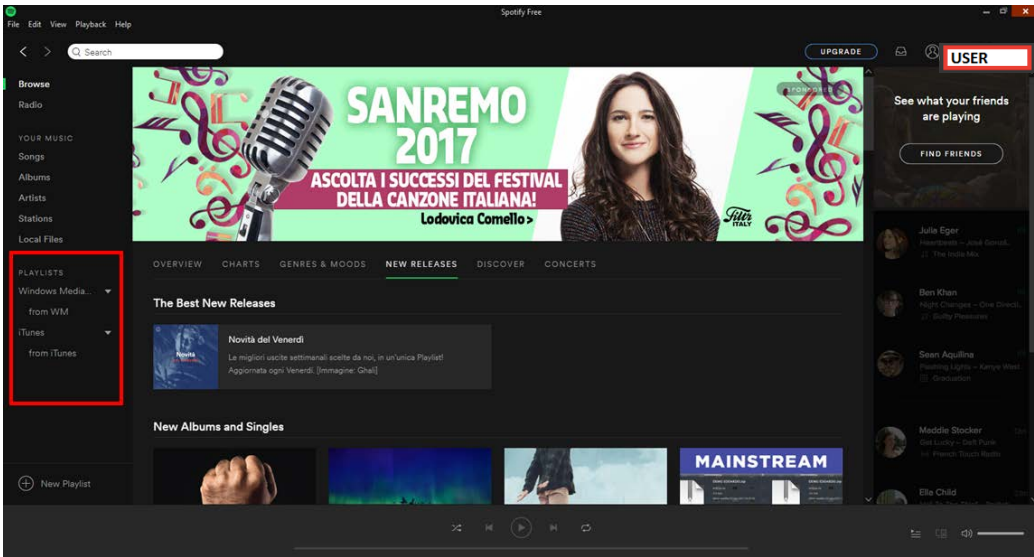






44. Spotify contains at least a second playlist made by other users and a first and third playlist associated with a given user.

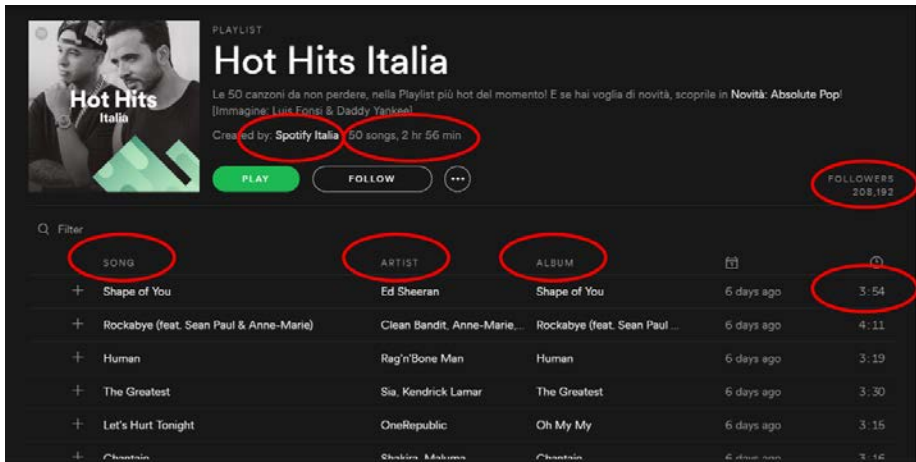




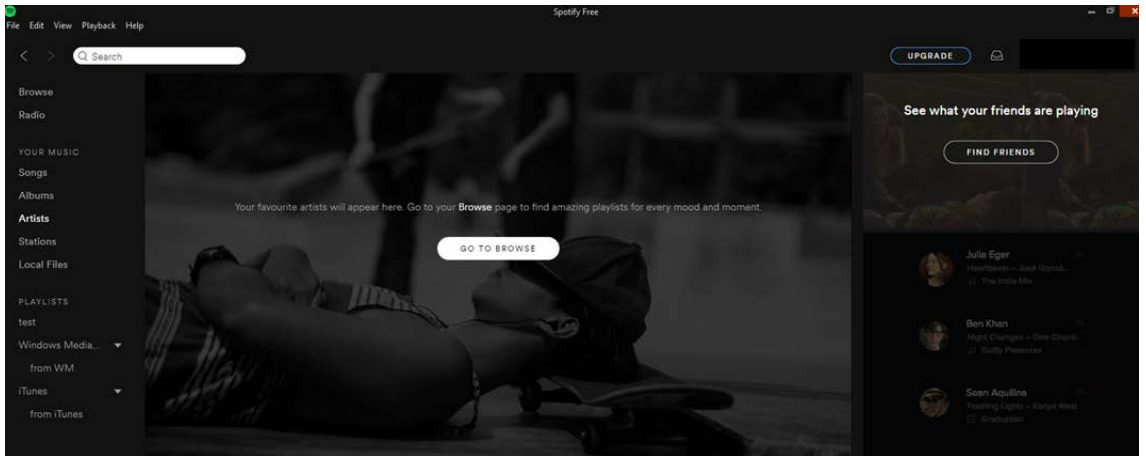
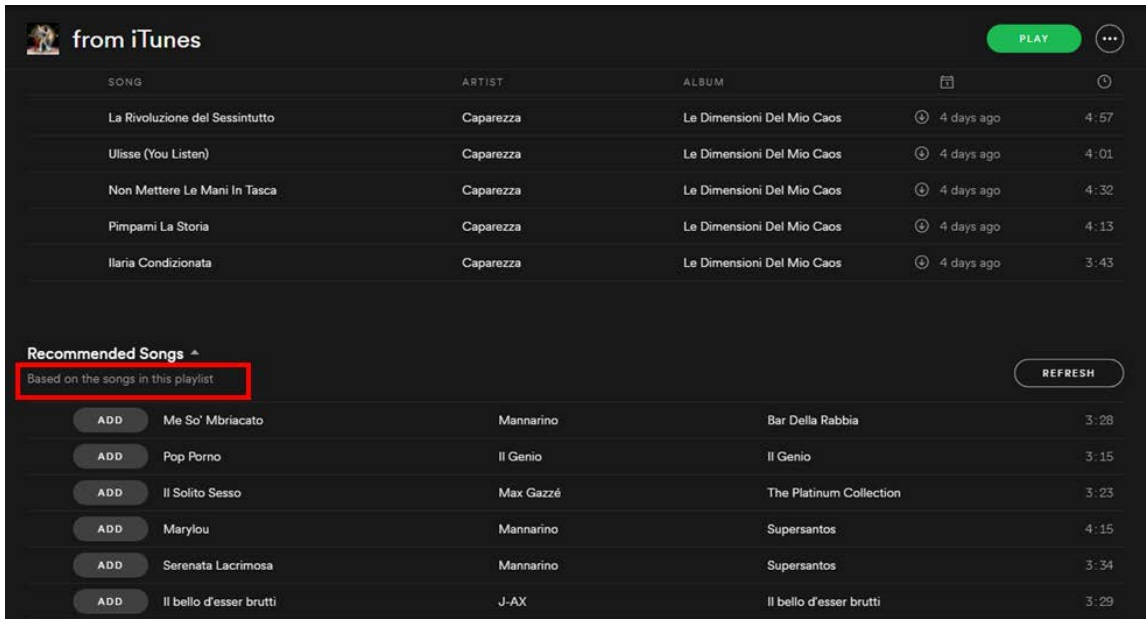
45. The playlists include at least identifying characteristic of content stored on the media device.

```
<?xml version="1.0"?>
<smil>
  <head>
    <meta name="Generator" content="Microsoft Windows Media Player -- 12.0.7601.23517"/>
    <meta name="IsNetworkFeed" content="0"/>
    <meta name="ItemCount" content="11"/>
    <meta name="IsFavorite"/>
    <meta name="ContentPartnerListID"/>
    <meta name="ContentPartnerNameType"/>
    <meta name="ContentPartnerName"/>
    <meta name="Subtitle"/>
    <author/>
    <title>test</title>
  </head>
  <body>
    <seq>
      <media src="..\Max Gazzè -Maximilian 2015\Max GazzÀ - In Breve.mp3"/>
      <media src="..\Max Gazzè -Maximilian 2015\Max GazzÀ - Nulla.mp3"/>
      <media src="..\Max Gazzè -Maximilian 2015\Max GazzÀ - Sul fiume - Maximilian.mp3"/>
      <media src="..\Max Gazzè -Maximilian 2015\Max GazzÀ - Teresa.mp3"/>
      <media src="..\Max Gazzè -Maximilian 2015\Max GazzÀ - Un Uomo Diverso.mp3"/>
      <media src="..\Max Gazzè -Maximilian 2015\Max GazzÀ - La Vita Com'è a...mp3"/>
      <media src="..\Max Gazzè -Maximilian 2015\Max GazzÀ - Ti Sembra Noxmale.mp3"/>
      <media src="..\Max Gazzè -Maximilian 2015\Max Gazzè - Mille Volte Ancora.mp3"/>
      <media src="..\Max Gazzè -Maximilian 2015\Max Gazzè Disordine d'èapos;aprile.mp3"/>
      <media src="..\Downloads\Smatto Domani - Smiling.mp3"/>
      <media src="..\Max Gazzè -Maximilian 2015\Verso un altro immenso cielo - Max GazzÀ (Brescia).mp3"/>
    </seq>
  </body>
</smil>
```

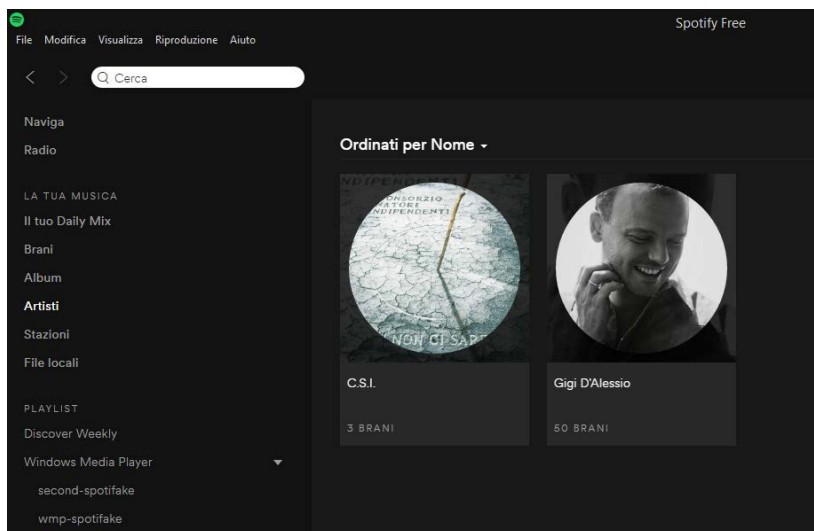
```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE plist PUBLIC "-//Apple Computer/DTD PLIST 1.0//EN" "http://www.apple.com/DTDs/PropertyList-1.0.dtd">
<plist version="1.0">
<dict>
  <key>Major Version</key><integer>1</integer>
  <key>Minor Version</key><integer>1</integer>
  <key>Application Version</key><string>12.5.4.42</string>
  <key>Date</key><date>2017-01-27T10:02:40Z</date>
  <key>Features</key><integer>5</integer>
  <key>Show Content Ratings</key><true/>
  <key>Library Persistent ID</key><string>95CCDCF37D8A19CD</string>
  <key>Tracks</key>
  <dict>
    <key>85</key>
    <dict>
      <key>Track ID</key><integer>85</integer>
      <key>Size</key><integer>11910256</integer>
      <key>Total Time</key><integer>297900</integer>
      <key>Track Number</key><integer>1</integer>
      <key>Year</key><integer>2008</integer>
      <key>Date Modified</key><date>2011-04-23T13:11:16Z</date>
      <key>Date Added</key><date>2017-01-24T15:11:19Z</date>
      <key>Bit Rate</key><integer>320</integer>
      <key>Sample Rate</key><integer>44100</integer>
      <key>Persistent ID</key><string>6496FCB021BDA7ED</string>
      <key>Track Type</key><string>File</string>
      <key>File Folder Count</key><integer>1</integer>
      <key>Library Folder Count</key><integer>1</integer>
      <key>Name</key><string>La Rivoluzione del Sessantotto</string>
      <key>Artist</key><string>Caparezza</string>
      <key>Composer</key><string>Caparezza</string>
      <key>Album</key><string>Le Dimensioni del mio Caos</string>
      <key>Genre</key><string>Alternative Rap</string>
      <key>Kind</key><string>MPEG audio file</string>
      <key>Location</key><string>file:///localhost/C:/Users/alessandra.mosca/Music/Caparezza%20-%20Le%20Dimensioni%20del%20mio%20Caos%20.mp3</string>
    </dict>
  </dict>
  <key>Playlists</key>
  <array>
    <dict>
      <key>Master</key><true/>
      <key>Playlist ID</key><integer>133</integer>
      <key>Playlist Persistent ID</key><string>48C7EAD80DBB99A8</string>
      <key>All Items</key><true/>
      <key>Visible</key><false/>
      <key>Name</key><string>Library</string>
      <key>Playlist Items</key>
      <array>
        <dict>
          <key>Track ID</key><integer>85</integer>
        </dict>
        <dict>
          <key>Track ID</key><integer>87</integer>
        </dict>
        <dict>
          <key>Track ID</key><integer>89</integer>
        </dict>
        <dict>
          <key>Track ID</key><integer>91</integer>
        </dict>
        <dict>
          <key>Track ID</key><integer>93</integer>
        </dict>
        <dict>
          <key>Track ID</key><integer>95</integer>
        </dict>
      </array>
    </dict>
  </array>
</plist>
```



46. Spotify analyzes it and starts suggesting new songs based on those already present in the playlist." This demonstrates Spotify analyzes the playlist contents.







47. Claim 2 of the '123 patent recites the method of claim 1 where the at least one playlist feature comprises one or more of: a feature representing tempo variance, a feature representing a number of different artists, a feature representing relative tempo difference, one or more features representing one or more preferred genres, a feature representing a number of genre changes, a feature representing the presence or absence of a particular genre change, and a feature representing the number of true and false genre changes between songs.

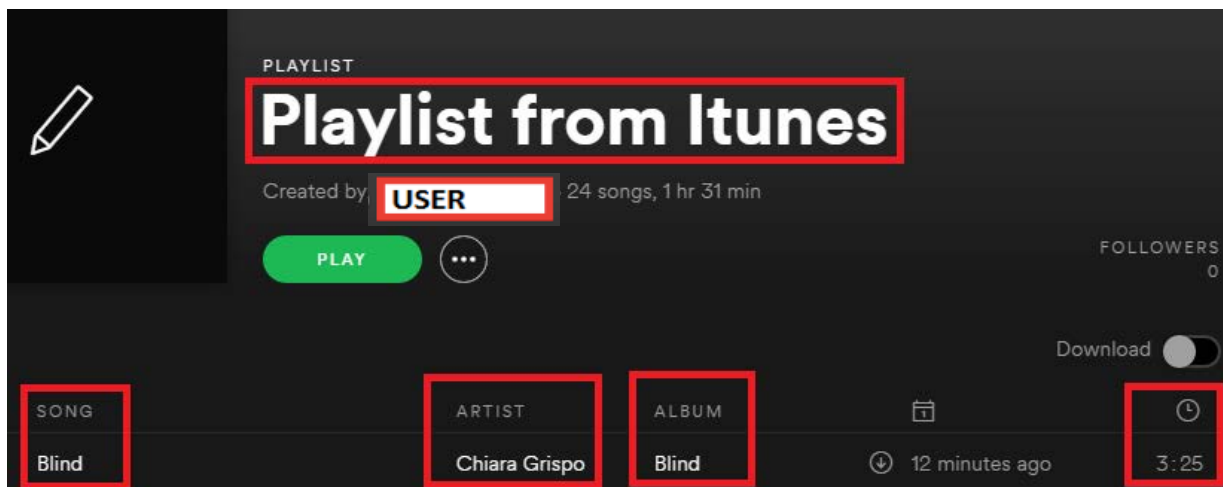
48. The Accused Instrumentalities infringe claim 2 of the '123 patent. *See, e.g.*, <https://developer.spotify.com/web-api/get-users-top-artists-and-tracks/>.

49. Claim 3 of the '123 patent recites the method of claim 1 where the method further comprises generating at least one recommended playlist on the basis of a user profile.

50. The Accused Instrumentalities infringe claim 3 of the '123 patent. *See, e.g.*, [https://support.spotify.com/uk/using\\_spotify/discover\\_music/discover/](https://support.spotify.com/uk/using_spotify/discover_music/discover/);  
[https://support.spotify.com/uk/using\\_spotify/playlists/discover-weekly/](https://support.spotify.com/uk/using_spotify/playlists/discover-weekly/).

51. Claim 5 of the '123 patent recites the method of claim 1 where the at least one first playlist comprises an ordered list of content items, including songs or videos, and the content items include metadata.

52. The Accused Instrumentalities infringe claim 5 of the '123 patent. *See, e.g.*, <https://support.spotify.com/uk/article/listen-to-local-files/>.



53. Claim 9 of the '123 patent recites the method of claim 1 where the media device is a jukebox, a set-top box, a TV, a PC, a DVD player, a hard disk recorder, a solid-state device, a radio or a VCR.

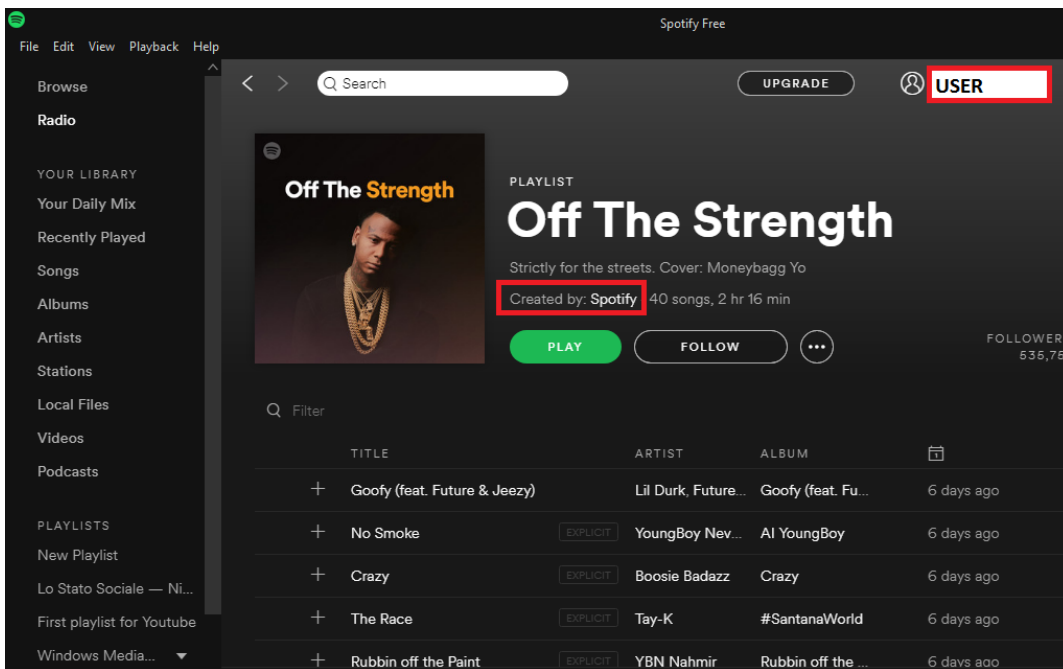
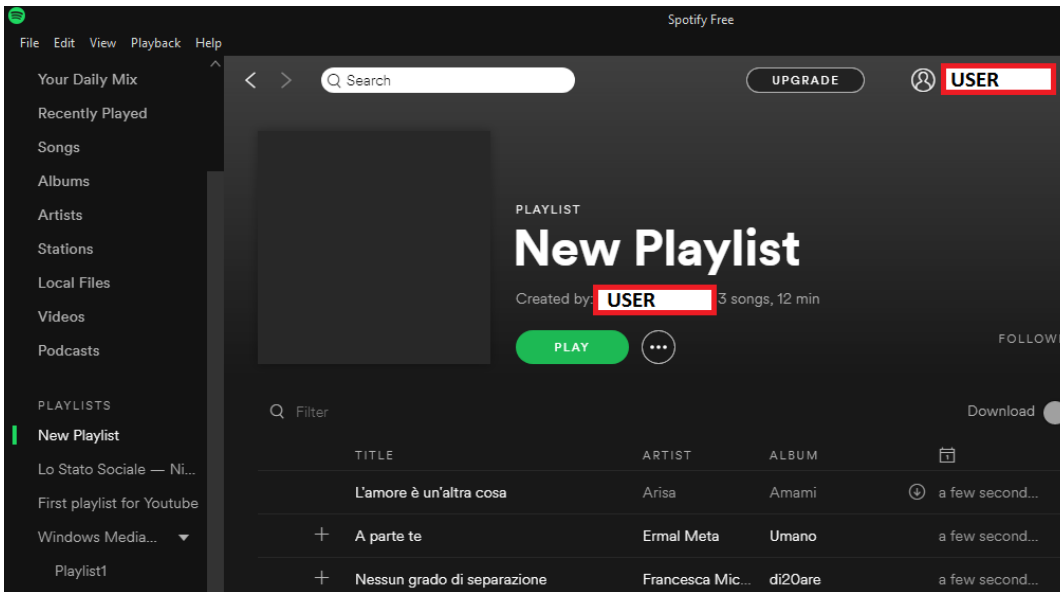
54. The Accused Instrumentalities infringe claim 9 of the '123 patent. *See, e.g.*, [https://support.spotify.com/us/using\\_spotify/system\\_settings/spotify-supported-devices/](https://support.spotify.com/us/using_spotify/system_settings/spotify-supported-devices/); <https://www.spotify.com/us/>.

55. Claim 10 of the '123 patent recites the method of claim 1 where the at least one first playlist comprises one or more selected from the group of: a DVD MPEG Program Stream containing picture and sound signal; a Blu-Ray MPEG Transport Stream containing picture and sound signal; a CD sound signal; a given digital audio format; a given digital movie format; a given picture format; and/or any format capable of causing said media device to emit a picture signal and/or a sound signal.

56. The Accused Instrumentalities infringe claim 10 of the '123 patent. *See, e.g.*, <https://support.spotify.com/uk/article/listen-to-local-files/>.

57. Claim 13 of the '123 patent recites the method of claim 1 further comprising distinguishing between manually created playlists and commercially available playlists.

58. The Accused Instrumentalities infringe claim 13 of the '123 patent. Spotify distinguishes between playlists manually created by users and playlists commercially created by Spotify.



59. Claim 18 of the '123 patent recites the method of claim 1 where the at least one first playlist comprises a plurality of digital media files.

60. The Accused Instrumentalities infringe claim 18 of the '123 patent. *See, e.g.*, <https://support.spotify.com/uk/article/listen-to-local-files/>.

61. On information and belief, these Accused Instrumentalities are used, marketed, provided to, and/or used by or for Defendant's partners, clients, customers and end users across the country and in this District.

62. Defendant was made aware of the '123 patent and its infringement thereof at least as early as March 15, 2017 when Defendant received a notice letter dated March 13, 2017.

63. Upon information and belief, since at least the time Defendant received notice, Defendant has induced and continues to induce others to infringe at least one claim of the '123 patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe, including but not limited to Defendant's partners, clients, customers, and end users, whose use of the Accused Instrumentalities constitutes direct infringement of at least one claim of the '123 patent.

64. In particular, Defendant's actions that aid and abet others such as its partners, customers, clients, and end users to infringe include advertising and distributing the Accused Instrumentalities and providing instruction materials, training, and services regarding the Accused Instrumentalities. On information and belief, Defendant has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Defendant has had actual knowledge of the '123 patent and knowledge that its acts were inducing infringement of the '123 patent since at least the date Spotify received notice that such activities infringed the '123 patent.

65. Upon information and belief, Defendant is liable as a contributory infringer of the '123 patent under 35 U.S.C. § 271(c) by offering to sell, selling and importing into the United States multimedia streaming platforms to be especially made or adapted for use in an infringement of the '123 patent. The Accused Instrumentalities are a material component for use in practicing the '123 patent and are specifically made and are not a staple article of commerce suitable for substantial non-infringing use.

66. Since at least March 15, 2017, Defendant's infringement has been willful.

67. Plaintiff has been harmed by Defendant's infringing activities.

**COUNT III – INFRINGEMENT OF U.S. PATENT NO. 7,734,680**

68. The allegations set forth in the foregoing paragraphs 1 through 67 are incorporated into this Third Claim for Relief.

69. On June 8, 2010, U.S. Patent No. 7,734,680 ("the '680 patent"), entitled "Method or Apparatus for Realizing Personalized Information from Multiple Information Sources," was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the '680 patent is attached as Exhibit 3.

70. The inventions of the '680 patent resolve technical problems related to browsing and/or searching various information sources, and more particularly to searching and/or presenting information from multiple information sources in a personalized and organized manner. For example, the inventions include a meta-browser that presents personalized collections of information from multiple sources of different media types as different media collections in a unified browsing space, which can be easily and intuitively browsed.

71. The claims of the '680 patent do not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claims of the '680 patent recite one or more inventive concepts that are

rooted in computerized browsing and recommendation engine technology, and overcome problems specifically arising in the realm of computerized browsing and recommendation engine technologies.

72. The claims of the '680 patent recite an invention that is not merely the routine or conventional use of searching and/or presenting information. Instead, in conjunction with its presentation capabilities, the invention enhances a user's browsing experience by utilizing personalized recommendations, which are generated based on a profile of the user's interests captured across multiple media sources. Collaborative filtering, which uses multiple user profiles to compute co-relations between the user's profile and others, is also used to make recommendations. The unified browsing space is also searchable. The '680 patent claims thus specify how large sets of electronic data are manipulated to yield a desired result.

73. The technology claimed in the '680 patent does not preempt all ways of searching and/or presenting information, nor preempt the use of all recommendation engines, nor preempt any other well-known or prior art technology.

74. Accordingly, each claim of the '680 patent recites a combination of elements sufficient to ensure that the claim in practice amounts to significantly more than a patent on an ineligible concept.

75. Plaintiff is the assignee and owner of the right, title and interest in and to the '680 patent, including the right to assert all causes of action arising under said patent and the right to any remedies for infringement of it.

76. Upon information and belief, Defendant has and continues to directly infringe at least claim 16 of the '680 patent by making, using, selling, importing and/or providing and causing to be used Spotify content streaming services in which the services utilize an interface

that includes a meta-browser that presents personalized collections of information from multiple sources of different media types as different media collections in a unified browsing space and that provides personalized recommendations based on a profile of the user's interests captured across multiple media sources (the “Accused Instrumentalities”).

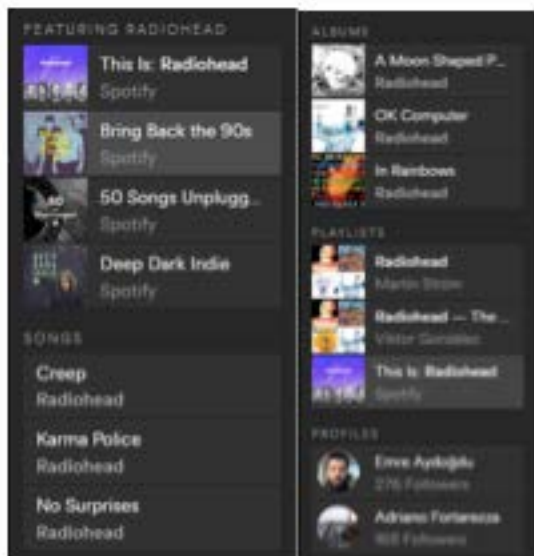
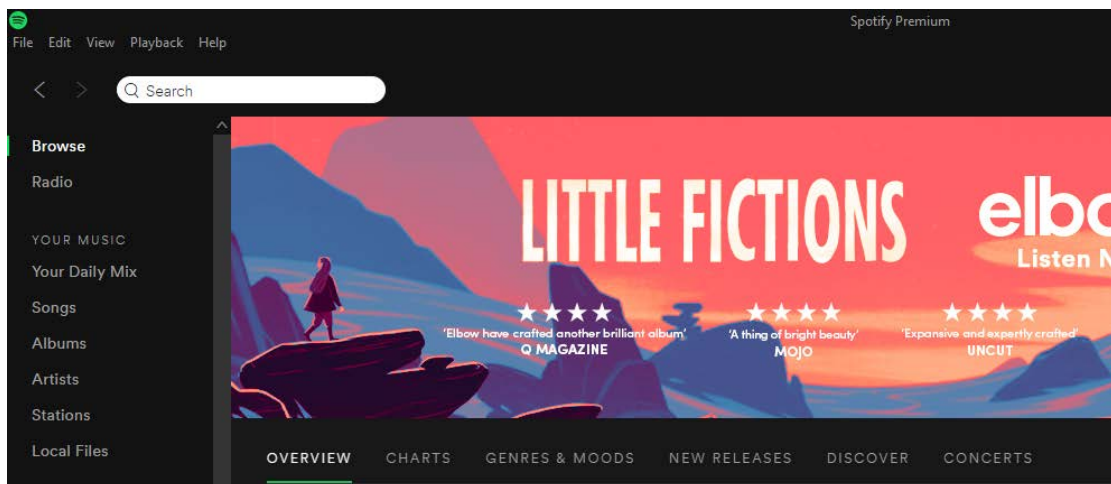
77. In particular, claim 16 of the ‘680 patent recites a computer program product comprising a computer readable medium having program logic recorded thereon for enabling a computer-enabled apparatus to display personalized information for a user from multiple information sources, comprising: (1) a populator for populating a virtual library with a plurality of different virtual media collections in accordance with a user profile, wherein the virtual library is populated with different types of media obtained from different media sources; (2) a browser for browsing the virtual library by moving between the plurality of different media collections under user control; (3) a search engine for searching the virtual library under user control; (4) a filter for filtering the results of the searching step in accordance with the user profile and the browsing step, wherein the filtering comprises explicit and implicit filtering, wherein the explicit filtering provides filtering of information from said plurality of different media collections and the implicit filtering draws from collaborative data among the plurality of different media collections and similar users; (5) a prioritizer for prioritizing results of the filtering step; and (6) an updater for updating the user profile in accordance with at least one selection of the results of the filtering step, wherein the updating is reflected in a ratio in responding to a user’s programming choice or specific request.

78. The Accused Instrumentalities infringe claim 16 of the ‘680 patent. *See, e.g.*, [https://support.spotify.com/us/listen\\_everywhere/on\\_phone\\_tablet\\_desktop/getting-started/](https://support.spotify.com/us/listen_everywhere/on_phone_tablet_desktop/getting-started/); <https://www.spotify.com/us/legal/privacy-policy/>; <https://artists.spotify.com/faq>;

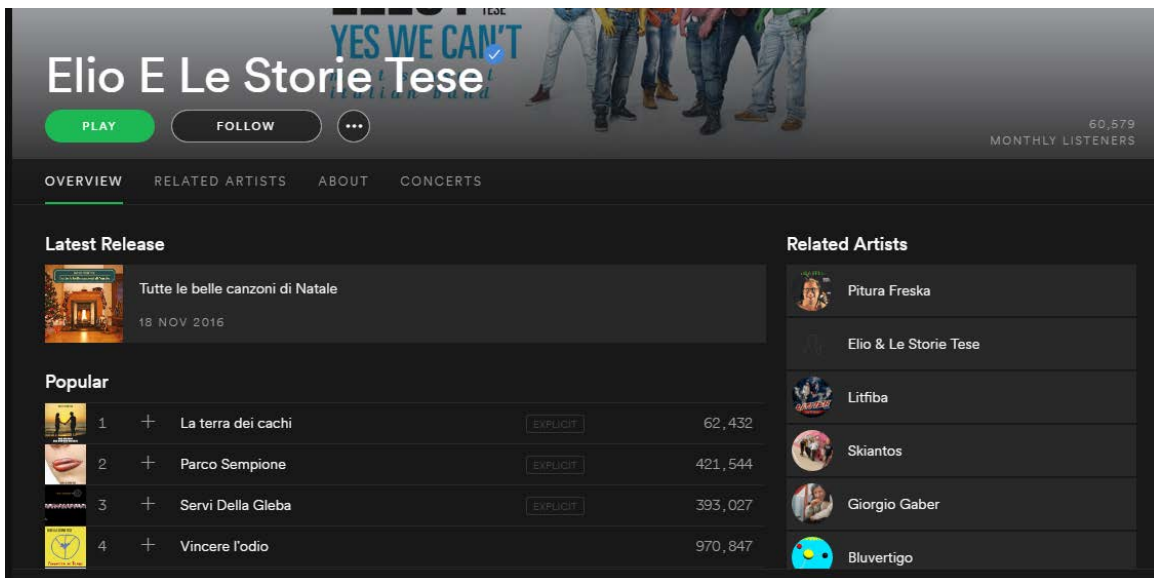
<https://spotifyforbrands.com/us/targeting/>; <https://www.spotify.com/us/legal/end-user-agreement/#s6>; U.S. Pat. No. 7,734,680 at 2:37-47, 6:61-7:2, 8:62-9:1;  
[https://support.spotify.com/us/using\\_spotify/discover\\_music/browse/](https://support.spotify.com/us/using_spotify/discover_music/browse/);  
[https://support.spotify.com/us/using\\_spotify/features/concerts/](https://support.spotify.com/us/using_spotify/features/concerts/);  
[https://support.spotify.com/us/using\\_spotify/the\\_basics/search/](https://support.spotify.com/us/using_spotify/the_basics/search/);  
[https://support.spotify.com/us/using\\_spotify/the\\_basics/getting-started/](https://support.spotify.com/us/using_spotify/the_basics/getting-started/); <http://hpac.rwth-aachen.de/teaching/sem-mus-16/presentations/Pruefer.pdf>;  
[https://support.spotify.com/us/using\\_spotify/features/spotify-radio/](https://support.spotify.com/us/using_spotify/features/spotify-radio/);  
<https://developer.spotify.com/web-api/track-relinking-guide/>; Francesco Ricci, Lior Rokach, Bracha Shapira, *Recommender Systems Handbook*, 2, 9 (Springer US 2015), available at <http://www.springer.com/it/book/9781489976369>; <https://developer.spotify.com/web-api/get-related-artists/>; <https://artists.spotify.com/faq/music#can-i-update-my-related-artists>;  
<https://news.spotify.com/us/2010/02/03/related-artists/>; <https://artists.spotify.com/faq/profile>;  
<https://artists.spotify.com/faq/promotion>; <https://developer.spotify.com/web-api/get-users-top-artists-and-tracks/>.

79. Regarding the filter, search results are filtered in accordance with the user profile. Specifically, after entering a search term into the general search engine, a list of results is provided, as shown below.

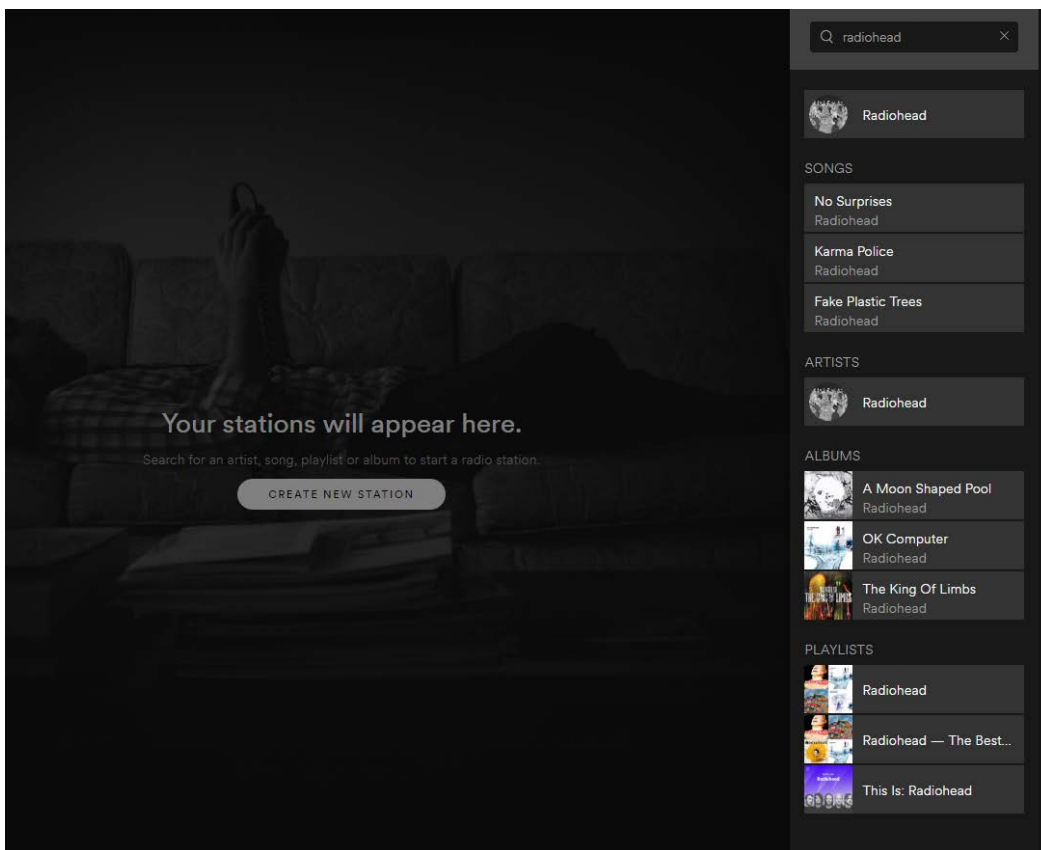




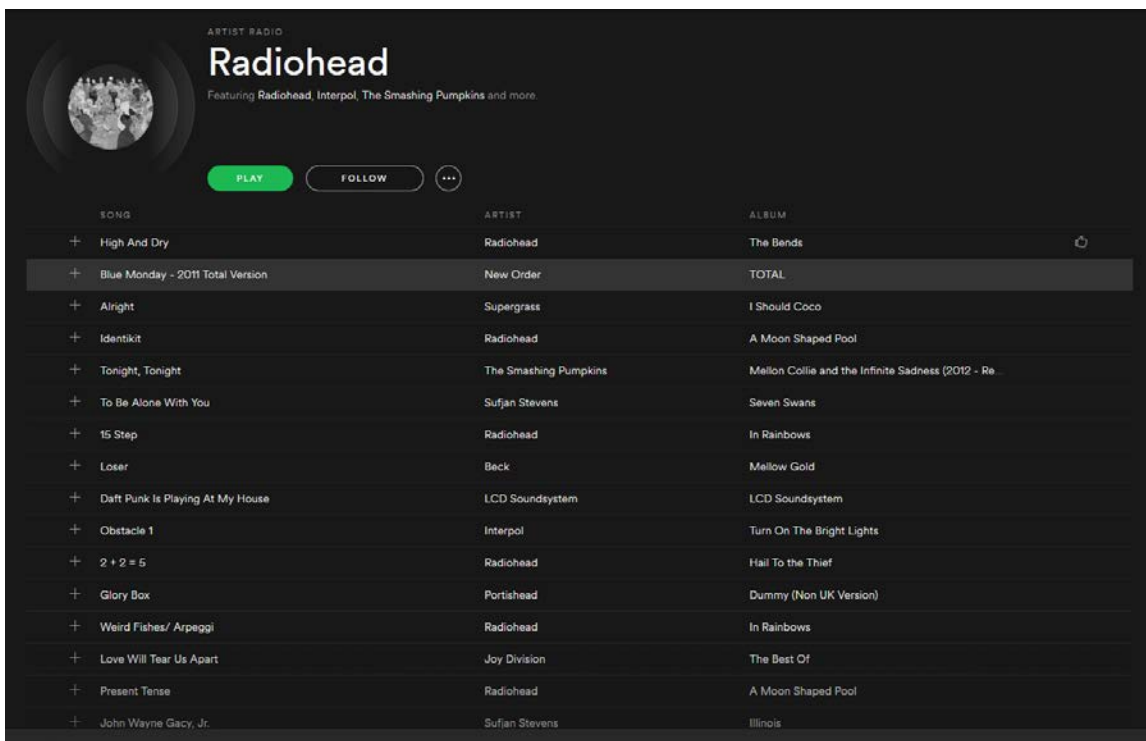
After the selection, the corresponding radio channel is created (the image below shows a “by artist” search).



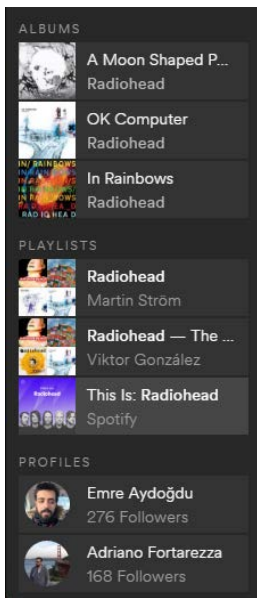
Also, when creating a new radio channel, search results are filtered in accordance with the user search. User can select one of the results to create the new radio. A number of songs available in the current market, according to the user location, will appear.



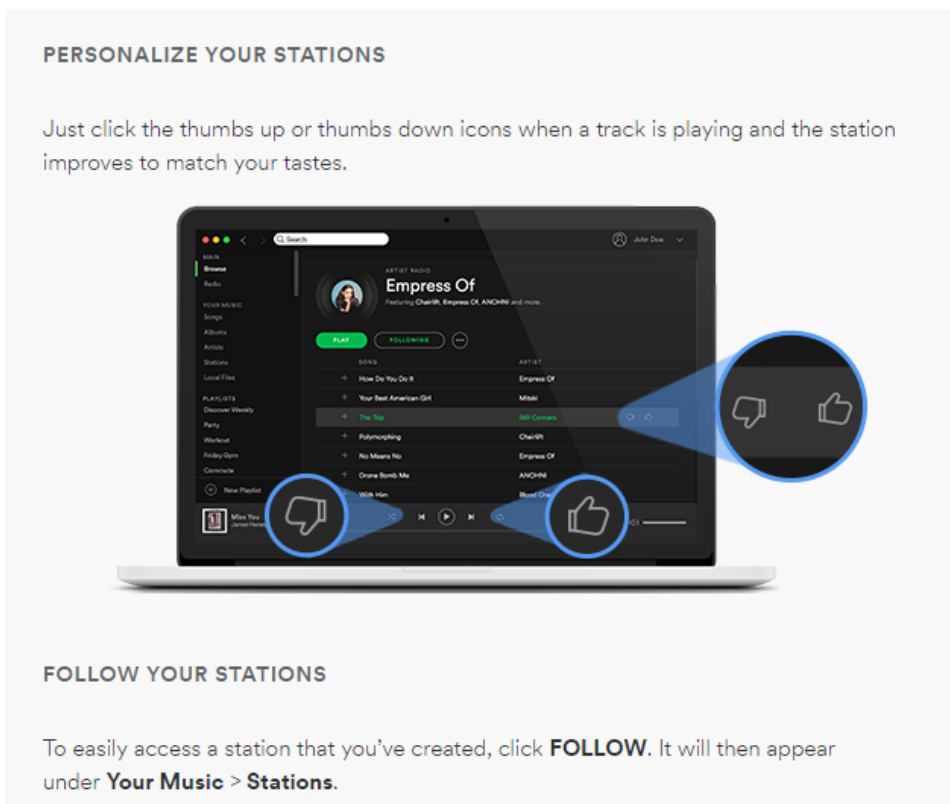
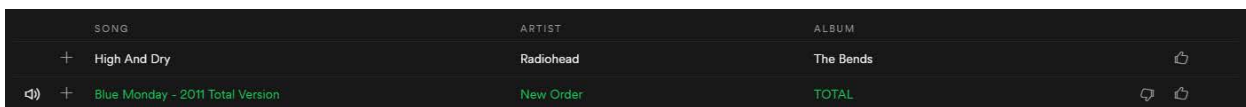
After the selection step by the user, the corresponding radio channel has been created (the below screenshot shows a radio channel resulting from a "by artist" search).



80. Regarding explicit filtering, the user explicitly specifies the result to be shown among the different media collections.



Further, when playing a song in a Custom Radio Channel, user is able to provide explicit feedback in terms of like/dislike, as shown below.



81. On information and belief, the updates in a given user's Spotify profile are reflected in a ratio that responds to that user's programming choice or specific request. Recommendation algorithms measure correlation coefficients that reflect the extent to which two variables relate with each other. A correlation measure between specific items is computed in order to measure the similarities between users, the similarities between attributes of the users, the expected preferences of a user for a specific attribute/item, etc. On information and belief, the correlation formula in the Accused Instrumentalities is expressed as a ratio. For a formal

expression of a ratio, see the analytic expression for the correlation measure explained here:

<http://recommender-systems.org/collaborative-filtering/>.

82. On information and belief, these Accused Instrumentalities are used, marketed, provided to, and/or used by or for Defendant's partners, clients, customers and end users across the country and in this District.

83. Defendant was made aware of the '680 patent and its infringement thereof at least as early as March 15, 2017 when Defendant received a notice letter dated March 13, 2017.

84. Upon information and belief, since at least the time Defendant received notice, Defendant has induced and continues to induce others to infringe at least one claim of the '680 patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe, including but not limited to Defendant's partners, clients, customers, and end users, whose use of the Accused Instrumentalities constitutes direct infringement of at least one claim of the '680 patent.

85. In particular, Defendant's actions that aid and abet others such as its partners, customers, clients, and end users to infringe include advertising and distributing the Accused Instrumentalities and providing instruction materials, training, and services regarding the Accused Instrumentalities. On information and belief, Defendant has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Defendant has had actual knowledge of the '680 patent and knowledge that its acts were inducing infringement of the '680 patent since at least the date Spotify received notice that such activities infringed the '680 patent.

86. Upon information and belief, Defendant is liable as a contributory infringer of the '680 patent under 35 U.S.C. § 271(c) by offering to sell, selling and importing into the United

States multimedia streaming platforms to be especially made or adapted for use in an infringement of the '680 patent. The Accused Instrumentalities are a material component for use in practicing the '680 patent and are specifically made and are not a staple article of commerce suitable for substantial non-infringing use.

87. Since at least March 15, 2017, Defendant's infringement has been willful.

88. Plaintiff has been harmed by Defendant's infringing activities.

**COUNT IV – INFRINGEMENT OF U.S. PATENT NO. 8,321,456**

89. The allegations set forth in the foregoing paragraphs 1 through 88 are incorporated into this Fourth Claim for Relief.

90. On November 27, 2012, U.S. Patent No. 8,321,456 ("the '456 patent"), entitled "Generating Metadata for Association with a Collection of Content Items," was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the '456 patent is attached as Exhibit 4.

91. The inventions of the '456 patent resolve computerized technical problems related to metadata. For example, the inventions provide for a method of automatically generating metadata for association with a collection of content items accessible to a system for processing data included in the content items.

92. The claims of the '456 patent do not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claims of the '456 patent recite one or more inventive concepts that are rooted in computerized technology, and overcome problems specifically arising in the realm of computerized metadata generation technologies.

93. The claims of the '456 patent recite an invention that is not merely the routine or conventional use of generating metadata. Instead, the invention automatically generates

metadata for association with a collection of content items accessible to a system for processing data included in the content items. The invention obtains sets of metadata associated with the content items individually, each set of metadata including at least one attribute value associated with the content item. Further, the invention analyzes at least one distribution of values of an attribute over the sets of metadata associated with the respective content items. The '456 patent claims thus specify how large electronic data sets are manipulated to yield a desired result.

94. The technology claimed in the '456 patent does not preempt all ways of generating metadata, nor preempt any other well-known or prior art technology.

95. Accordingly, each claim of the '456 patent recites a combination of elements sufficient to ensure that the claim in practice amounts to significantly more than a patent on an ineligible concept.

96. Plaintiff is the assignee and owner of the right, title and interest in and to the '456 patent, including the right to assert all causes of action arising under said patent and the right to any remedies for infringement of it.

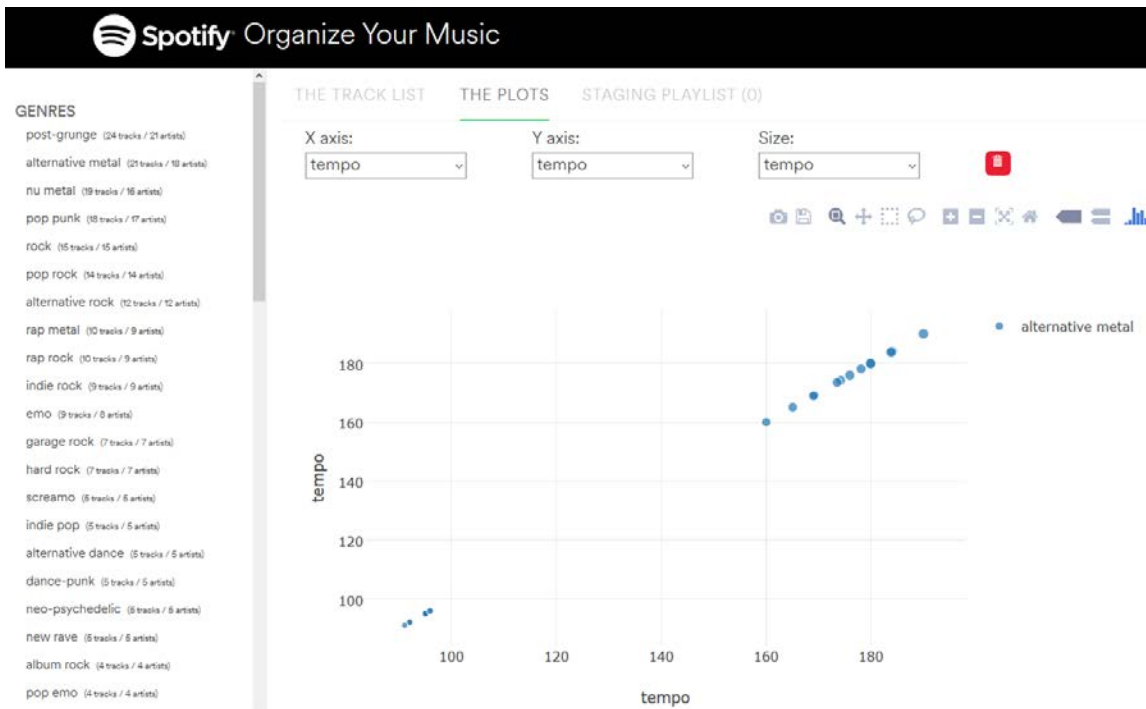
97. Upon information and belief, Defendant has and continues to directly infringe at least claim 1 of the '456 patent by making, using, selling, importing and/or providing and causing to be used Spotify content streaming services in which the services automatically generate metadata for association with a collection of content items accessible to a system for processing data included in the content items (the "Accused Instrumentalities").

98. In particular, claim 1 of the '456 patent recites a method of automatically generating metadata for association with a collection of content items accessible to a processing system for processing data included in the content items. The method includes, in the processing system, obtaining sets of metadata associated with the content items individually, each set of

metadata including at least one attribute value associated with the content item; analyzing at least one distribution of values of an attribute over the sets of metadata associated with the respective content items; selecting at least one attribute value in dependence on the analysis; processing the selected attribute value(s) to generate the metadata for association with the collection. The method also includes making the generated metadata available to the processing system for processing data included in the content items in connection with an identification of the collection of content items, wherein the step of selecting at least one attribute value includes selecting at least one attribute by comparative analysis of distributions of values over the sets of metadata associated with the respective content items individually of each of a plurality of attributes.

99. The Accused Instrumentalities infringe claim 1 of the '456 patent. *See, e.g.*, <https://www.spotify.com/uk/running/>;  
[https://support.spotify.com/uk/using\\_spotify/features/running/](https://support.spotify.com/uk/using_spotify/features/running/);  
<https://developer.spotify.com/web-api/get-audio-features/>; <https://developer.spotify.com/web-api/object-model/#track-object-full>; <https://developer.spotify.com/web-api/object-model/#audio-features-object>; <http://sortyourmusic.playlistmachinery.com/>;  
<http://organizeyourmusic.playlistmachinery.com/>.





The figure shows a screenshot of Spotify's 'SORT YOUR MUSIC' interface. At the top, there are filters for 'Minimum BPM' (set to 0) and 'Maximum BPM' (set to 1000), with a checked box for 'Include Doubled BPM'. Below the filters is a table of 21 tracks. The table columns are: #, Title, Artist, Release, BPM, Energy, Dance, Loud, Valence, Length, Acoustic, and Pop. The tracks are sorted by BPM in descending order.

#	TITLE	ARTIST	RELEASE	BPM	ENERGY	DANCE	LOUD	VALENCE	LENGTH	ACOUSTIC	POP.
1	Indestructible	Disturbed	2008-04-29	180	97	43	-5	53	4:38	0	65
2	Little Hospital	Billy Cyle	2013-01-28	180	94	45	-4	51	3:35	0	24
3	Law Down Dirty	Lynyrd Skynyrd	2010-08-17	94	93	49	-4	67	3:14	0	39
4	Get It	Deepfield	2007-07-24	176	93	44	-4	69	2:50	0	10
5	Alone Together	Fall Out Boy	2013-01-01	180	94	47	-4	62	3:23	0	62
6	Hold My Hand	New Found Glory	2008-01-01	155	97	48	-3	90	3:44	0	29
7	We All Fall Down	Ferretell	2009-09-01	170	97	40	-4	80	3:16	0	31
8	Always Where I Need to Be	The Roots	2008-04-11	168	96	33	-5	88	2:42	0	57
9	Ready to Start	Avicade Five	2010-08-03	96	93	46	-5	53	4:16	11	40
10	House Of Cards	Madina Lake	2007-05-25	155	90	47	-5	34	3:37	0	30
11	Memory	Sugarcoat	2004-04-13	167	86	45	-4	70	3:46	0	57
12	Tunnel Vision	Tokyo Police Club	2014-03-25	170	94	47	-4	68	3:02	0	30
13	Hollywood	Alter Midnight Project	2009-06-10	160	99	45	-4	72	3:03	0	21
14	I Love You to Death	Family Force 5	2006-02-07	171	97	89	-3	60	2:45	0	31
15	Same Direction	Hooobastank	2003-12-09	159	99	41	-3	52	3:15	1	44
16	Family Reunion	Selvia	2010-01-01	180	93	46	-4	57	3:40	0	32
17	Life Marches On	Live	2003-05-20	96	94	52	-4	65	2:54	0	22
18	The Night	Disturbed	2008-04-29	184	98	45	-4	58	4:46	0	54
19	LA Devotee	Pariah At The Disco	2016-01-15	175	85	49	-5	71	3:17	0	72
20	Hell To Pay	Five Finger Death Punch	2015-09-04	192	95	45	-3	55	3:08	0	4
21	When Did Your	Rooney	2007-07-24	176	93	80	-4	97	3:33	0	50

100. On information and belief, these Accused Instrumentalities are used, marketed, provided to, and/or used by or for Defendant’s partners, clients, customers and end users across the country and in this District.

101. Defendant was made aware of the '456 patent and its infringement thereof at least as early as March 15, 2017 when Defendant received a notice letter dated March 13, 2017.

102. Upon information and belief, since at least the time Defendant received notice, Defendant has induced and continues to induce others to infringe at least one claim of the '456 patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe, including but not limited to Defendant's partners, clients, customers, and end users, whose use of the Accused Instrumentalities constitutes direct infringement of at least one claim of the '456 patent.

103. In particular, Defendant's actions that aid and abet others such as its partners, customers, clients, and end users to infringe include advertising and distributing the Accused Instrumentalities and providing instruction materials, training, and services regarding the Accused Instrumentalities. On information and belief, Defendant has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Defendant has had actual knowledge of the '456 patent and knowledge that its acts were inducing infringement of the '456 patent since at least the date Spotify received notice that such activities infringed the '456 patent.

104. Upon information and belief, Defendant is liable as a contributory infringer of the '456 patent under 35 U.S.C. § 271(c) by offering to sell, selling and importing into the United States multimedia streaming platforms to be especially made or adapted for use in an infringement of the '456 patent. The Accused Instrumentalities are a material component for use in practicing the '456 patent and are specifically made and are not a staple article of commerce suitable for substantial non-infringing use.

105. Since at least March 15, 2017, Defendant's infringement has been willful.

106. Plaintiff has been harmed by Defendant's infringing activities.

**COUNT V – INFRINGEMENT OF U.S. PATENT NO. 7,035,863**

107. The allegations set forth in the foregoing paragraphs 1 through 106 are incorporated into this Fifth Claim for Relief.

108. On April 25, 2006, U.S. Patent No. 7,035,863 ("the '863 patent"), entitled "Method, System, and Program Product for Populating a User Profile Based on Existing User Profiles," was duly and legally issued by the United States Patent and Trademark Office. A true and correct copy of the '863 patent is attached as Exhibit 5.

109. The inventions of the '863 patent resolve technical problems related to computerized recommendation systems and methods. For example, the inventions designate base characteristics for a new user profile. Based on the designated characteristics, the new user profile is associated with existing user profiles. Once associated, the new user profile is populated with defined characteristics from the existing user profiles. After the new user profile is populated, recommendations based thereon can be made.

110. The claims of the '863 patent do not merely recite the performance of some business practice known from the pre-Internet world along with the requirement to perform it on the Internet. Instead, the claims of the '863 patent recite one or more inventive concepts that are rooted in computerized technology, and overcome problems specifically arising in that realm. For example, the inventions of the '863 patent allow more efficient and beneficial access to large electronic content repositories, and improve access to such electronic content repositories through the use of computerized tools unrelated to pre-Internet business practices.

111. The claims of the '863 patent recite an invention that is not merely the routine or conventional use of recommending content. Instead, the invention includes a designation system for designating base characteristics for a new user profile; an association system for associating

the new user profile with a cluster region of existing user profiles based on the base characteristics; and a population system for populating the new user profile with defined characteristics from the existing user profiles. The '863 patent claims thus specify how large electronic data sets are manipulated to yield a desired result.

112. The technology claimed in the '863 patent does not preempt all ways of recommending content, nor preempt the use of all recommendation engines, nor preempt any other well-known or prior art technology.

113. Accordingly, each claim of the '863 patent recites a combination of elements sufficient to ensure that the claim in practice amounts to significantly more than a patent on an ineligible concept.

114. Plaintiff is the assignee and owner of the right, title and interest in and to the '863 patent, including the right to assert all causes of action arising under said patent and the right to any remedies for infringement of it.

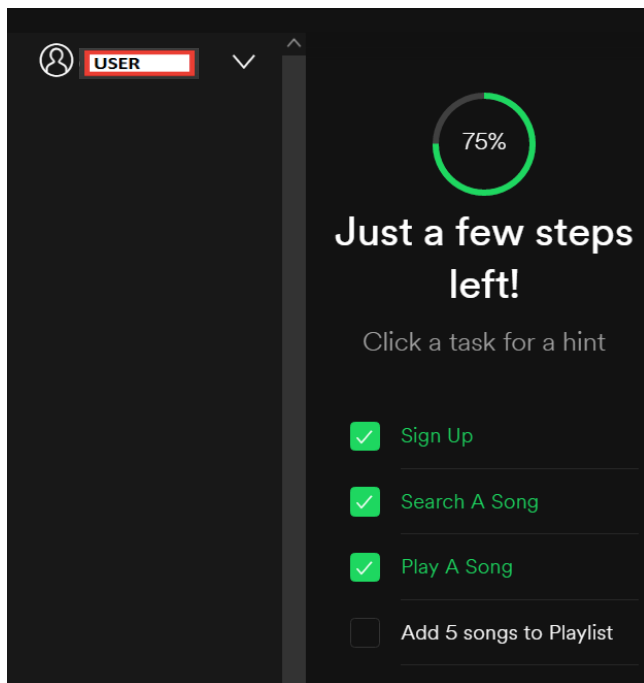
115. Upon information and belief, Defendant has and continues to directly infringe at least claims 11 and 12 of the '863 patent by making, using, selling, importing and/or providing and causing to be used Spotify content streaming services in which the services utilize a recommendation engine that includes a designation system for designating base characteristics for a new user profile; an association system for associating the new user profile with a cluster region of existing user profiles based on the base characteristics; and a population system for populating the new user profile with defined characteristics from the existing user profiles (the "Accused Instrumentalities").

116. In particular, claim 11 of the '863 patent recites a computer implemented system for populating a user profile based on existing user profiles, comprising a memory containing the

following: a designation system for designating base characteristics for a new user profile; an association system for associating the new user profile with a cluster region of existing user profiles based on the base characteristics; and a population system for populating the new user profile with defined characteristics from the existing user profiles.

117. The Accused Instrumentalities infringe claim 11 of the '863 patent. *See, e.g.*,  
<https://www.spotify.com/us/legal/end-user-agreement/>;  
<https://www.spotify.com/us/legal/privacy-policy/>;  
<https://www.slideshare.net/MrChrisJohnson/collaborative-filtering-with-spark>;  
<https://support.spotify.com/us/article/discover-weekly/>; U.S. Pat. No. 7,035,863 at 5:38-52;  
<https://artists.spotify.com/faq/profile#can-i-control-the-related-artists-on-my-profile-faqanswer>;  
<https://artistexplorer.spotify.com/>;  
[https://support.spotify.com/us/using\\_spotify/discover\\_music/discover/](https://support.spotify.com/us/using_spotify/discover_music/discover/).

118. Regarding the designation system, Spotify includes the ability to designate a variety of base characteristics by permitting a user to select content representative of his or her interests.



119. Claim 12 of the ‘863 patent recites the system of claim 11 further comprising a recommendation system for making a recommendation based on the populated new user profile.

120. The Accused Instrumentalities infringe claim 12 of the ‘863 patent. *See, e.g.*, <https://www.spotify.com/us/legal/privacy-policy/>;  
[https://support.spotify.com/us/using\\_spotify/discover\\_music/discover/](https://support.spotify.com/us/using_spotify/discover_music/discover/).

121. On information and belief, these Accused Instrumentalities are used, marketed, provided to, and/or used by or for Defendant’s partners, clients, customers and end users across the country and in this District.

122. Defendant was made aware of the ‘863 patent and its infringement thereof at least as early as March 15, 2017 when Defendant received a notice letter dated March 13, 2017.

123. Upon information and belief, since at least the time Defendant received notice, Defendant has induced and continues to induce others to infringe at least one claim of the ‘863 patent under 35 U.S.C. § 271(b) by, among other things, and with specific intent or willful blindness, actively aiding and abetting others to infringe, including but not limited to

Defendant's partners, clients, customers, and end users, whose use of the Accused Instrumentalities constitutes direct infringement of at least one claim of the '863 patent.

124. In particular, Defendant's actions that aid and abet others such as its partners, customers, clients, and end users to infringe include advertising and distributing the Accused Instrumentalities and providing instruction materials, training, and services regarding the Accused Instrumentalities. On information and belief, Defendant has engaged in such actions with specific intent to cause infringement or with willful blindness to the resulting infringement because Defendant has had actual knowledge of the '863 patent and knowledge that its acts were inducing infringement of the '863 patent since at least the date Spotify received notice that such activities infringed the '863 patent.

125. Upon information and belief, Defendant is liable as a contributory infringer of the '863 patent under 35 U.S.C. § 271(c) by offering to sell, selling and importing into the United States multimedia streaming platforms to be especially made or adapted for use in an infringement of the '863 patent. The Accused Instrumentalities are a material component for use in practicing the '863 patent and are specifically made and are not a staple article of commerce suitable for substantial non-infringing use.

126. Since at least March 15, 2017, Defendant's infringement has been willful.

127. Plaintiff has been harmed by Defendant's infringing activities.

#### **JURY DEMAND**

Pursuant to Rule 38 of the Federal Rules of Civil Procedure, Plaintiff demands a trial by jury on all issues triable as such.

#### **PRAYER FOR RELIEF**

WHEREFORE, Plaintiff demands judgment for itself and against Defendant as follows:

A. An adjudication that Defendant has infringed the '202, '123, '680, '456, and '863 patents and that the infringement has been willful;

B. An award of damages to be paid by Defendant adequate to compensate Plaintiff for Defendant's past infringement of the '202, '123, '680, '456, and '863 patents, and any continuing or future infringement through the date such judgment is entered, including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;

C. A declaration that this case is exceptional under 35 U.S.C. § 285, and an award of Plaintiff's reasonable attorneys' fees; and

D. An award to Plaintiff of such further relief at law or in equity as the Court deems just and proper.

Dated: January 8, 2018

DEVLIN LAW FIRM LLC

/s/ Timothy Devlin

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