## IN THE UNITED STATES DISTRICT COURT

FOR THE WESTERN DISTRICT OF WISCONSIN

MOAEC, INC.,
OPINION AND ORDER
Plaintiff,
07-cv-654-mfk
v.

PANDORA MEDIA, INC.,
J. RIVER INC. and

NAPSTER, L.L.C.,
Defendants.

This is a civil lawsuit in which plaintiff MOAEC, Inc. alleges infringement of its United States Patents Nos. 5,969,283 (the '283 patent); 6,232,539 (the '539 patent); 6,953,886 (the '886 patent); and $7,205,471$ (the '471 patent). Of the original six defendants only three remain: Pandora Media, Inc., J. River, Inc. and Napster L.L.C.; all other defendants have been dismissed. Plaintiff is asserting infringement of only the '539 and '471 patents against defendants Pandora and Napster. It has asserted infringement claims against defendant J. River, but this defendant did not move for summary judgment on those claims. It did move for summary judgment, contending that plaintiff's '539 and
'471 patents are invalid. That motion remains under advisement.
The case is before the court on motions for summary judgment of non-infringement filed by defendant Napster, dkt. \# 168, and defendant Pandora, dkt. \# l71. Both defendants contend, correctly, that they are entitled to summary judgment because their devices do not infringe either of the patents that plaintiff asserts against them.

As an initial matter, I note that plaintiff did not follow this court's summary judgment procedure when it filed its response to defendants' proposed findings of fact. The court's instructions provide:

When a responding party disputes a proposed finding of fact, the response must be limited to those facts necessary to raise a dispute. The court will disregard any new facts that are not directly responsive to the proposed fact. If a responding party believes that more facts are necessary to tell its story, it should include them in its own proposed facts, as discussed in II.B.

Procedure to be Followed on Motions for Summary Judgment, § II.D.4., dkt. \#94, at 16 (emphasis added). The purpose of this procedure is to separate facts that are in dispute from facts that are undisputed but which need supplementation to tell the whole story. Responding to a proposed fact with new facts to fill holes in the movant's story makes it unclear whether the responding party disputes the proposed fact or believes the fact is incomplete. The court instituted its policy to avoid such confusion.

Plaintiff did not file any of its own proposed facts. Instead, it included new facts in most of its responses to defendants' proposed findings of fact, in violation of the court's
summary judgment procedures. In deciding defendants' motions for summary judgment I have disregarded the new facts plaintiff included in its responses to defendants' proposed facts. Doing so does not affect the outcome of defendants' motions for summary judgment. The disregarded facts would not compel a different result.

From defendants' proposed findings of fact, I find that the following facts are undisputed and material to determining defendants' motions for summary judgment.

## UNDISPUTED FACTS

## A. Parties

Plaintiff MOAEC, Inc. is a Delaware corporation with its principal place of business in Billerica, Massachusetts. Defendant Napster, L.L.C. is a Delaware corporation with its principal place of business in Los Angeles, California. Defendant Pandora Media, Inc. is a California corporation with its principal place of business in Oakland, California.

## B. Patents in Suit

All four patents in suit are related and share the same basic figures and specification because they are continuations of each other. The application resulting in the ' 471 patent was a continuation of the application resulting in the ' 886 patent, which was a continuation-in-part of an abandoned application, which was a continuation of the application resulting
in the '539 patent, which was a continuation of United States Application Serial No. 09/098,843, which resulted in the '283 patent. Thus, all four patents claim priority to the initial application filing date of June 17, 1998.

All four patents relate generally to an entertainment system for organizing, storing and playing back music or other media files. The patents describe a "center" that includes a microprocessor, a high-volume data storage device and components for playing back music according to a variety of predetermined categories. E.g.,'539 pat., Abstract. The center may be a stand-alone unit or a personal computer as evidenced by Figs. 1 and 2 of the ' 539 patent:


FIG. 1


FIG. 2

The patents' claimed inventions store music or media files, that are organized by categories.
Those files are stored with category flags in a database in a storage device, such as a hard disk
drive. E.g., '539 pat., col. 1, ln. 66-col. 2, ln. 6. The patents describe a number of categories used for cataloguing, displaying and organizing the music or media, such as artist, title, date, music category, music style, dance type, music speed, energy and mood. E.g., '539 pat., col. 6, lns. 18-20, 52-60; col. 14, lns. 4-8; '471 pat., col. 7, lns. 54-57. A user may access and play back categories of songs through a graphical user interface, an embodiment of which is provided in Fig. 13 of the ' 539 patent:

"The illustrated window 382 in FIG. 13 shows some of the possible categories that can be organized by the service provider and cross-referenced within the database with respect to each individual selection." '539 pat., col. 9, lns. 17-21. When a user selects a particular category button, the system accesses the database of compressed music files and category information and displays and plays back songs that match the selected category. E.g.,' 539 pat., col. 9, lns. 16-35.

Although plaintiff alleges infringement of the four patents in suit, defendants Napster and Pandora are alleged to infringe only the ' 539 and ' 471 patents, not all four patents. Plaintiff accuses defendant Napster's products of infringing claims 6, 7, 15 and 16 of the '539 patent and claims 35,36 and 45 through 49 of the '471 patent. Plaintiff accuses defendant Pandora's products of infringing claim 15 of the '539 patent and claims 1 through 4,8 through $10,15,24,26,35,36,45,48$ and 49 of the ' 471 patent.

1. The '539 patent

The '539 patent is entitled, "Music Organizer and Entertainment Center." It has two independent claims, claims 1 and 15. Claim 1 states:

1. A music organizer and entertainment center comprising:
a storage device for storing compressed data defining a plurality of individual music selections and associated category flags;
a processor that retrieves selections and the associated category flags from the
storage device based upon user selection of predetermined of the categories; a data decompressor that translates the compressed data into playable digital music data;
a network interface for receiving the compressed data from a remote source over a network for download into the storage device; and
a graphical user interface display having a plurality of selectable screens, at least one of the selectable screens including a plurality of category buttons constructed and arranged so that when a predetermined of the category buttons is activated, music selections having category flags matching the predetermined category of a respective of the buttons are selected and listed on the display.
'539 pat., col. 15, lns. 47-67. Claims 6 and 7 state:
2. The center as set forth in claim 1 wherein at least one of the displays includes a play list of music selections chosen from the search list, the center being constructed and arranged to translate compressed data of each of the music selections on the play list, in a predetermined order, and to convert the playable digital music data into audible music signals.
3. The center as set forth in claim 6 further comprising a memory function constructed and arranged to memorize predetermined lists of music selections for subsequent playback based upon predetermined list identifier commands.

Id. col. 16, lns. 20-30. Claim 15 states:
15. A computer readable medium that contains program instructions for:
receiving compressed data representative of a plurality of musical selections from a source;
storing the compressed data in a database with a plurality of category markers associated therewith representative of a plurality of predetermined characteristics of each of the musical selections, respectively;
selectively accessing predetermined of the plurality of selections and constructing a list of the selections for playback as music based upon at least one of the predetermined characteristics entered by a user;
decompressing and playing back each of the predetermined of the plurality of
selections according to a desired order of playback; and
displaying in a graphical user interface display having a plurality of selectable screens, at least one of the selectable screens including a plurality of category buttons constructed and arrayed so that when a predetermined of the category buttons is activated, music selections having category flags matching the predetermined category of a respective of the buttons are selected and listed on the display.

Id. col. 17, ln $1-$ col. 18, $\ln .6$.
2. The '47l patent

The '471 patent is entitled "Media Organizer and Entertainment Center." It has two independent claims, claims 1 and 35. Claim 1 states:

1. A media/data selection organizer and entertainment system comprising:
a storage device which stores a plurality of media/data selections, each of said media/data selections having associated therewith at least one of a plurality of category flags and at least one of a plurality of sub-category flags;
a user interface including a plurality of category selection buttons and a plurality of sub-category selection buttons selectable by a user;
a selector responsive to user activation of at least one of said category selection buttons and at least one of said sub-category selection buttons which automatically selects for retrieval from said storage device, and automatically generates, a playlist of those of said media/data selections having the user selected category and sub-category combinations; and
a playback device which plays the selected media/data selections on said playlist in sequence.
'471 pat., col. 27, lns. 35-53. Claim 35 states:
2. A system for organizing media/data selections, and facilitating the generation of media/data selection playlists, comprising
an input device for receiving media/data selections from a remote source; a storage device which stores said media/data selections together with a plurality of category flags associated with each of said media/data selections; a media/data selection categorizer which allows a user of the system to associate with said media/data selections one or more of said category flags and to store said one or more category flags with their associated media/data selections in said storage device;
a user interface including a plurality of category selection buttons selectable by the user;
a selector responsive to user activation of at least one of said category selection buttons which automatically selects for retrieval from said storage device, and automatically generates, a playlist of only those of said media/data selections having the user selected category or categories; and an output device which makes the media/data selections on said playlist available for sequential play on a playback device.

Id. col. 29, lns. 30-53.

## C. Accused Products

## 1. Defendant Napster's accused products

a. Overview of Napster's online music service

Defendant Napster provides an online music service that offers both a pay subscription-based service and a free advertising-supported service. Users pay a monthly subscription fee for access to all the songs they wish to obtain. Napster provides its services to users in one of three ways: (1) internet streaming; (2) tethered downloads, which time-out after a subscriber ends his subscription; and (3) permanent downloads. Whether a user receives a streamed song or downloads the song depends on the user's request, membership
category and purchase details. A downloaded song results in a new copy of the song, which is generally stored on the user's hard drive. A streamed song does not result in a new copy of the song; instead, the user listens to the song as if it were on a conventional radio. The song is not stored on the user's computer.

Customers use Napster's services on their computers through a specially adapted version of Windows Media Player, referred to as Napster Client Software, or through a web interface that is accessible using a browser like Internet Explorer. The Napster Client Software is a user application installed on the user's computer, which is separate from the back-end server application that Napster operates to run its services. The songs made available to users are initially stored on Napster's servers before they are streamed or downloaded to users' computers. Napster stores the song files in one of two compressed formats, either Windows Media Audio or MP3 format.

Napster receives song files from licensors with basic identifying information appended to the files, including artist name, track name and album name. Napster stores this identifying information in databases that it uses in providing its services. It marks each song file with a unique numeric identifier, called a TrackID, that enables Napster's system to match the song file with the song's attributes, which are stored separately in the databases.

Napster's system does not store song or media/data files in its databases, only information about song attributes. In addition to the initial identifying information,

Napster creates and obtains additional descriptive information about most of its song files. For example, Napster obtains information specifying the genre to which a song belongs, biographical information about the artist who wrote or performed the song and information that enables it to make song recommendations to customers, such as, "if you like 'Superstitious' by Stevie Wonder you might like 'Highly Suspicious' by My Morning Jacket." All such additional information is stored in Napster's databases.

When a user downloads a copy of a song, the Napster Client Software creates a record on the computer that the song file is present, along with certain of the song file's attributes, such as artist name, track name and album name. The additional descriptive information about the song file is not stored on the user's computer, which is referred to as the local database, but remains in Napster's databases. Thus, for example, the record on the user's computer does not include recommendation information.

The Napster Client Software and web interface enable users to listen to pre-created playlists and to create song lists of their own by dragging and dropping icons representing song files into icons representing folders. Users can label these folders in any way they choose. The Napster Client Software and web interface can play back user-created song lists in the order created by the user or in a shuffled order.

In playing back music, a user may click on an album, artist or playlist and the main window of the Napster interface will display a list of songs associated with the album, artist
or playlist. Once the list of tracks are displayed, the user must affirmatively select the song or playlist he wants played. The main window of the Napster interface includes two action buttons, which are displayed near each track and playlist name. Actuating the play button, $\square$, will open the Napster player and populate the player window with the chosen songs. Actuating the submenu button, $\boldsymbol{\Psi}$, provides the user with a list of options, such as "Play Album" or "Add to Playlist." To play a song added to the "now playing" area of the main window, the Napster system performs a lookup function to look up the TrackID, AlbumID, ArtistID or PlaylistID corresponding to the chosen song file. If the song file is present on the user's computer, the Napster system sends the file location to the player for playback. If the song is not present on the user's computer, the Napster system sends the location of the song file on a Napster server to the player for playback.

Napster's system does not provide a data decompressor to translate the compressed data into playable digital music data. The end user's computer provides a decompressor for playback of the compressed data by using some third party application, such as Adobe Flash or Windows Media Player. Napster does not provide or support the Flash Player or Windows Media Player applications.
b. Napster's features
l) Automix feature

Napster's Automix feature allows users to enter a song or artist as a "seed" to generate a customized song list for immediate streamed playback. When the Automix feature is activated, Napster's system uses an algorithm to analyze several attributes of the "seed" and then dynamically generates a song list of songs similar to the "seed." The "seed" is defined in the Napster system by a unique number identifier, such as TrackID or ArtistID.

The Automix feature involves a multi-step process that uses identification numbers to select songs to add to an Automix song list. For example:

1. The user selects and highlights a song as a seed;
2. With the seed song highlighted, the user selects the Automix button;
3. The Napster system sends the ArtistID of the highlighted song to the Napster servers;
4. The Napster system selects ArtistIDs that are recommended artists based on Napster's own weighted matching information or information offered by a third party service;
5. The Napster system collects 10 TrackIDs from each recommended artist;
6. The Napster system also collects 10 TrackIDs from the artist of the seed song;
7. The Napster system chooses 40 TrackIDs from the collected songs; and
8. The Napster system displays the 40 songs corresponding to the 40 chosen TrackIDs.

A user can also use the Automix feature from an artist page or by right clicking in various locations withing the Napster system, which sends the ArtistID corresponding to the right clicked target to the Napster servers. There is no "automix" attribute appended to any song file.

## 2) Radio station feature

Napster's radio station feature provides genre or theme-based radio stations containing a multitude of manually preprogrammed collections of songs that can be streamed to a user for playback. Napster has specialists in its music programming department who identify and select a large number of songs, usually around 1000 , for inclusion in each radio station track list. The specialists function as disc-jockeys by pre-selecting songs to include in each radio station track list, relying on their expertise and sensibilities about the best and most appropriate songs to include in each track list.

Each radio station is identified in the Napster system by a RadioID, which is a unique number. The track list for each radio station contains a list of all the TrackIDs of the songs chosen by the specialists to be included in the radio station. When a user selects a radio station for playback, the browser or client software sends the RadioID to the Napster system. Upon receipt of the RadioID, the Napster system randomly selects a number of TrackIDs, usually about 250 , from the radio station track list and sends those TrackIDs to the user as a song list. The songs associated with the returned TrackIDs are streamed for playback. Because the TrackIDs are chosen randomly, songs can be repeated during playback of the radio station track list.
3) Playlist feature

Napster's playlist feature provides lists of songs predefined according to a theme. The lists are created by Napster music programmers in its music department. The programmer creates a PlaylistID by choosing a number of TrackIDs in accordance with the playlist's theme and creating a track list of those TrackIDs, which is associated with the PlaylistID. When a user selects a Napster playlist from either the browser or client interface, the PlaylistID is sent to the Napster system. Upon receipt of the PlaylistID, the Napster system finds the PlaylistID and sends the TrackIDs in the PlaylistID's track list to the user as a song list. The songs associated with the returned TrackIDs are streamed for playback. During playback, the Napster system provides identifying information about the returned TrackIDs in the Napster player window.

## 4) My Library feature

Napster's My Library feature displays a hierarchical list of the songs, albums of songs and playlists that have been saved or downloaded by the user. The songs may be viewed hierarchically by genre, artist or as a list of "All Tracks." Albums of songs are grouped together under artists. Content that a user downloads from Napster's system onto the user's computer is displayed in the My Library window. A user is permitted to save a bookmark in his My Library collection that identifies a song or album even though the content of the song or album has not been downloaded to the user's computer.

Users can play back songs from their My Library collections by using the Napster Client Software. Users can drag and drop songs by name from the My Library area of the display into a "now playing" area or they can double click the songs in their My Library area to add them to the now playing area. Users of the Napster Client Software can also rightclick on a song, artist, album or playlist in the My Library window to open a sub-menu with additional playback options, such as Automix for songs and artists or "burn" for songs, albums and playlists.

In order to play songs moved from the My Library area into the "now playing" area, the Napster Client Software must perform a lookup function to look up the AlbumID or PlaylistID to obtain a list of TrackIDs. Next, the software performs a lookup function to look up each TrackID to determine whether the song is present on the user's computer or must be obtained from the Napster system. If the song is present on the user's computer, the Napster system sends the file location to the player so it can play the song. If the song is not present on the user's computer, the Napster system sends the song's location on a Napster server to the player so it can play the song. Users may play back songs from their My Library collections in a similar fashion by using a web interface.
c. Napster's knowledge of the patents in suit and infringement

Before plaintiff filed this lawsuit, Napster was unaware of plaintiff's patents. Napster
had no knowledge that its services would induce infringement of plaintiff's patents by anyone, including users of its services.

## 2. Defendant Pandora's accused product

a. Pandora ${ }^{\circledR}$ Radio

Defendant Pandora's internet radio service, Pandora Radio, is a free service that streams music to a user's personal computer, mobile phone or other compatible electronic devices. Pandora also offers a subscription service that lacks advertising; this service appeals to less than one percent of Pandora's users. Pandora's radio service cannot and does not provide songs "on demand" because it operates under a statutory license authorized under the Digital Millennium Copyright Act that prohibits providing songs "on demand." Pandora's users do not have any ownership rights to the music Pandora streams for playback, that is, they cannot download any of the music.

A user of Pandor's radio service interacts with Pandora's system through an interface, which is called the tuner. Typically, the tuner is an Adobe Flash multimedia program located on the user's computer and displayed in a web browser. The tuner coordinates music playback and sends user actions to Pandora's system, which comprises a web of servers that stream music content to numerous users simultaneously in a secure manner. Pandora's tuner does not provide software for decompressing or translating compressed music data into
playable music data. Pandora's system accesses music files and streams them from one of its media servers to the user's tuner using a transfer protocol, such as hypertext transfer protocol or HTTP.

The music files streamed by Pandora originate from compact discs or digital files provided by music publishers. The music files are copied from the compact discs or digital files to a Pandora-owned archive file server located at Pandora's headquarters. The copied music files are converted to MP3 format and given a unique file name using Universal Product Code (UPC) format corresponding to the album, album disc number and track number of the song. Next, these copied music files are converted into a file that is compatible with user devices. These converted music files are stored on a staging file server located at a Pandora facility and assigned file names in the staging file server using the UPC format. The music files in the staging file server are copied to media servers located at Pandora co-location facilities. As before, the music files stored in the media servers are assigned file names using the UPC format. Once the music files are stored on the media servers, they are available for streaming to users. The media servers are file servers that store the music files in a file directory by file name.

Pandora's media servers stream music files to users for immediate use. Pandora's tuner does not include any program instructions for storing compressed music files. Pandora does not facilitate storing music on the user's computer because Pandora's music licenses do
not permit it to provide music for users to store. Although Pandora's system does not allow users to fast forward, rewind or replay songs, users may either pause the streaming music or skip the current song.

Pandora employs musicologists who listen to songs and analyze the musical attributes present in songs. These musicologists are involved in Pandora's Music Genome Project ${ }^{\circledR}$, under which each musical attribute is referred to as a "gene." Each song may contain between 170 to 400 genes. Musicologists score a song's genes on a scale of zero to five, in half point increments. Data about a song's genes are stored on servers separate and different from Pandora's media servers. They are not transmitted to Pandora users. Users cannot access or modify a song's genes or select for playing songs having a particular gene. No button displayed on the Pandora user interface matches any gene in the Music Genome Project, that is, users cannot choose songs using any specific gene.

To use Pandora's radio service, a user may begin by creating a radio station or selecting one of the listed radio stations. To create a radio station, the user inputs a favorite song, artist, composer or a combination of those inputs. The inputted songs, artists, etc. are referred to as "seeds" for a radio station. Seeds are associated with a specific radio station. User-created stations are displayed under the "Your Stations" banner on the Pandora system interface. When an existing user returns to Pandora's website, the last radio station played by the user will automatically play again.

The Pandora system interface may also display "Genre Stations" at the bottom of the window. Genre Stations are radio stations defined by seeds selected by Pandora. A user may select one of eighteen "genre category" hyperlinks, producing a new display of predefined radio stations related to the chosen genre category. For example, selecting the "Reggae" genre category hyperlink produces a display of five predefined Reggae stations, such as "Reggae/Caribbean"; selecting the "Reggae/Caribbean" station causes the station to play music and show the listing of "Reggae/Caribbean" under the "Your Station" banner. When a user selects a genre station, the tuner sends a request to Pandora's application server for a sequence of four songs corresponding to the seed of the selected station to stream to the user. All genre stations are seeded by songs, artists and composers in exactly the same manner as a user-created station.

Once a genre station begins playing music, users may select the "station options" down arrow and select the "View this Station's Definition" option. When that option is selected, a new browser web-page opens, displaying a list of the seeds for the station and a list of the songs played through the station that users have "thumbed-up" and "thumbeddown." The songs played in accordance with a genre station are chosen on the basis of user feedback and the musicological similarity to the seeds that define the station.

Creating a station by using a particular artist or song as a seed does not guarantee that Pandora's system will play songs by that artist or play the specific seed song. Pandora's
system cannot select songs for on-demand listening. Instead, Pandora's system selects four song sets or fragments. To create a fragment, Pandora's system uses a complex algorithm. In applying this algorithm, the Pandora system begins by selecting at random one of the station's seeds songs, artists or composers to be the "userSeed" for the fragment. If the userSeed is an artist or composer, the system randomly selects an album or disc by the artist or composer to be the "matchingSeed." Pandora's system then randomly selects a "focus trait," if one is triggered. (A focus trait is triggered when the values of certain defined sets of genes satisfy specific requirements.) The triggering of a focus trait results in the weighting of the song's genes. The musicological distance between the matchingSeed and the candidate songs is computed by calculating the multi-dimensional Cartesian distance between their gene vectors, with adjustments made according to which focus traits have been triggered. This calculation creates MUSICOLOGICAL song candidates for a four song fragment. MUSICOLOGICAL songs are songs that are chosen on a musicological basis.

Pandora's system produces four other types of song candidates: (1) EXPLICIT_TEST; (2) FORCED; (3) QUALITY; and (4) IMPLICIT_TEST. FORCED songs are played on a station to insure that at least some music by the artist of the seed songs or seed artists is played occasionally. QUALITY songs are songs with the most positive feedback for a particular userSeed. The Pandora system also takes into account recent song history and licensing-related considerations before making the final song selections for a fragment. All
four songs in a fragment are compatible with at least one matchingSeed-focusTrait pair. However, the algorithm does not permit users to select the songs that are played or the order in which the songs are played back. The algorithm was designed intentionally for selecting four song fragments with random results and unpredictability because of the limits on playback in Pandora's radio licenses. Thus, the Pandora system does not return the same sequence of songs to the same station. In other words, two users creating stations that have the same seed will hear different songs in a different order.

After a four song fragment is calculated, the tuner sends a media request to the media server to begin streaming the first song. As the music file is steamed to the tuner, the underlying platform on the computer begins to play back the audio. Once the audio playback begins, the tuner provides additional information about the song, such as artist and title, in the window display. Nothing in the Pandora system decompresses the music data or translates it into playable music. The Pandora system relies on users' devices, such as a computer, to provide the software and hardware components necessary to decompress and playback the music, such as a sound card and media player.

Once a four song fragment is finished, the tuner sends a request to Pandora's application server for four more songs. At any time, users can use the tuner to select a different station or create a new station. Selecting a new station will cause the music to stop playing temporarily while the system selects a new set of songs, utilizing a seed of the newly
selected station.

While a song is playing, users can use the tuner to provide feedback about the songs using "thumbs." Choosing a "thumbs up" has two effects: (1) future sets of songs are more likely to have similar musical attributes, that is, multiple "thumbs up" votes on a song played on a specific station will have cumulative effect on the songs played by the station; and (2) the likelihood that the thumbed song will play again is elevated slightly. Feedback from thumbs is associated with the radio station on which the thumb was input. However, users cannot select songs for playback on the basis of the thumbs previously input for songs. In other words, a user cannot make a favorites radio station containing only thumbed-up songs. Choosing a "thumbs down" stops the currently playing song.
b. Pandora's knowledge of the patents in suit and infringement

There is no evidence that Pandora knew of the patents in suit before plaintiff filed this lawsuit. There is no evidence that Pandora knew or should have known that its services would induce infringement of plaintiff's patents.

## OPINION

In its motion for summary judgment defendant Napster contends that its accused products do not infringe dependent claims 6 and 7 or independent claim of the ' 539 patent
and independent claim 35 of the ' 471 patent, either directly or by the doctrine of equivalents. In its motion for summary judgment defendant Pandora contends that its accused products do not infringe independent claim 15 of the '539 patent and independent claims 1 and 25 of the '471 patent, either directly or by the doctrine of equivalents. Both defendants contend that their accused products do not infringe the ' 539 or ' 471 patents under theories of inducement of infringement, contributory infringement or joint infringement. Plaintiff challenges all of defendants' contentions.

## A. Direct and Doctrine of Equivalents Infringement Analyses

"'Summary judgment on the issue of infringement is proper when no reasonable jury could find that every limitation recited in a properly construed claim either is or is not found in the accused device either literally or under the doctrine of equivalents.'" U.S. Philips Corp. v. Iwasaki Elec. Co., 505 F.3d 1371, 1374-1375 (Fed. Cir. 2007) (quoting PC Connector Solutions LLC v. SmartDisk Corp., 406 F.3d 1359, 1364 (Fed. Cir. 2005)). Patent infringement analysis involves two steps. First, the patent claims must be interpreted or construed to determine their meaning and scope. Markman v. Westview Instruments, Inc., 52 F.3d 967, 976 (Fed. Cir. 1995). Second, the properly construed claims are compared to the process or device accused of infringing. Id. To establish infringement, plaintiff must prove that each claim element is present in the accused product, either literally
or by equivalence. Dawn Equipment Co. v. Kentucky Farms Inc., 140 F.3d 1009, 1015 (Fed. Cir. 1998). Conversely, defendants can prevail by demonstrating that at least one element of the asserted claim is absent from their devices.

Under the doctrine of equivalents, "a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is 'equivalence' between the elements of the accused product or process and the claimed elements of the patented invention." Warner-Jenkinson Co. v. Hilton Davis Chemicals Co., 520 U.S. 17, 21 (1997). A broad, overall equivalence between an accused product and a patented invention is not enough; rather, "[e]ach element contained in a patent claim is deemed material to defining the scope of a patented invention, and thus the doctrine of equivalents must be applied to individual elements of the claim, not to the invention as a whole." Id. at 29; Freedman Seating Co. v. American Seating Co., 420 F.3d 1350, 1358 (Fed. Cir. 2005).

At times, the doctrine of equivalents is framed in terms of the substantiality of the differences between the elements of the invention and the product, e.g., Freedman Seating Co., 420 F.3d at 1358, and at times in terms of the "triple identity test": "whether the accused device performs substantially the same function in substantially the same way to obtain the same result as the claim limitation." E.g., Catalina Marketing Int'l v. Coolsavings.com, Inc., 289 F.3d 801, 813 (Fed. Cir. 2002) (citations omitted). The key to
either test is " $[a] n$ analysis of the role played by each element in the context of the specific patent claim." Warner-Jenkinson Co., 520 U.S. at 40. Regardless of the test used, the essential inquiry is whether "the accused product or process contain[s] elements identical or equivalent to each claimed element of the patented invention." Id.

## B. Napster's Accused Device and the '539 Patent

## 1. Napster's Automix feature

a. Claims 6 and 7 of the ' 539 patent

Defendant Napster contends that its Automix feature does not infringe claims 6 and 7 of the ' 539 patent because it does not retrieve selections and associated category flags from the storage device in reliance on user selection of predetermined categories, as required by claim 1 of the '539 patent, which is the independent claim from which claims 6 and 7 depend. How Napster's Automix feature works is undisputed. Thus, the only issue is whether this retrieval and selection limitation from claim 1 is present in the Automix feature, either literally or by equivalence. I conclude that it is not.

A purpose of the ' 539 patent is "to provide a user with the ability to fully customize playback of music . . ."' '539 pat., col. 1, lns. 58-59. (Emphasis added). Part of providing this fully customized playback requires permitting a user to obtain specific song selections by selecting different categories. Specifically, claim I claims an apparatus to retrieve a list
of songs having associated category flags corresponding to user-selected predetermined categories. Id. col. 15, lns. 52-54. According to the '539 patent's specification,

Songs can be chosen based upon a specific desire or mood that relates to categories such as music age, energy, speed, style, dance, or rating. Experienced listeners can enjoy new convenience in music playback. Newer listeners typically find their use of the center to be highly educational, as they quickly learn to associate certain types of categories with specific selections, artists and songs . . . .

Id. col. 6, lns. 18-24. In other words, if a user is in the mood for 1970's Rock music, he can select the "Rock" category and the "1970's" category buttons and the claimed invention will retrieve song selections that have "Rock" and "1970's" flags associated with them and display the selections for convenient playback of 1970's Rock music.

Napster's Automix feature does not send the Napster system in search of songs or artists associated with some user-selected predetermined category or categories. When a user activates the Automix feature, he is requesting songs similar to the seed, regardless of genre, artist, music speed, etc. The user does not get to select which category or categories he wants Napster's system to use to obtain similar songs. Napster's system does not search for songs flagged as similar to the seed. Instead, to locate songs similar to the seed the system uses its algorithm, which considers usage statistics and third party data. The algorithm may return one song that shares characteristics $\mathrm{X}, \mathrm{Y}$ and Z with the seed and another song that shares characteristics W and X . For example, if the user's seed is a country song, the algorithm does not return only songs that can be categorized as "Country" because the Automix feature does
not provide a method for the user to select and obtain songs from a specific category, such as "Country." Instead, execution of the algorithm could return a "Pop" song as long as the song is similar enough to the user's seed according to the algorithm. Thus, in using the Automix feature, a user is not selecting a predetermined category and receiving songs that fit under that category; instead, the user is selecting a seed that contains many different variables, some of which Napster's system includes in a calculation that results in the selection and sending of certain songs to the user.

A return to the 1970's Rock music example shows that Napster's Automix feature does not provide the same customized playback claimed in the '539 patent. A user in the mood for 1970's Rock music cannot use Napster's Automix feature to obtain a playlist of 1970's Rock music. In the hope of obtaining 1970's Rock music, the Automix user could select "Stairway to Heaven" by Led Zeppelin as his seed song. The Napster system would use an algorithm to obtain recommended artists that have songs similar to "Stairway to Heaven." Napster's system would then collect ten TrackIDs from each recommended artist and 10 TrackIDs from Led Zeppelin and choose 40 TrackIDs from the collected songs to send to the user for playback. However, using the Automix feature would not necessarily provide the user with songs that could be "categorized" as 1970's Rock. For example, a song from a modern artist with a 1970's Rock sound might be included in the returned playlist. Thus, selection of a seed is not the selection of a predetermined category.

Despite plaintiff's contention to the contrary, the Automix feature is not merely a combination of different category flags that create new categories. Combining categories creates a narrowing effect, that is, the more categories that are combined, the fewer selections that are returned because the returned selections' characteristics must fit into each selected category. In our 1970's Rock music example, if a user combines several categories by selecting "Rock," "1970's" and "Favorites," the returned selections must fit into all three categories. Conversely, the Automix feature does not narrow a user's selections because it does not combine categories. Instead, it broadens the user's selections by using an algorithm that will return songs similar to the seed even if the songs do not share all the same characteristics and could not all fit into the same categories.

In addition to not literally infringing on claim 1, the Automix feature does not infringe under the doctrine of equivalents. Plaintiff contends that the Automix feature infringes under the doctrine of equivalents because it is "a context sensitive button that, when activated, finds songs similar to the artist or song selected by the user, and lists those songs on the display" in satisfaction of claim l's retrieval of songs associated with a user's selection of a predetermined category limitation. Plt.'s Opp. Br., dkt. \#222, at 26. However, finding songs similar to a selected song is not the equivalent of finding songs that fit under a chosen category. Using the '539 patent's claimed invention, users select a category of songs and expect that all the retrieved songs fall under that category. For
example, by selecting the "Rock" category a user expects that the songs retrieved all fit under the "Rock" category.

Conversely, when a user selects a seed song using the Automix feature, he expects that retrieved songs will share characteristics similar to the seed, but cannot know the category of the songs or even the characteristics the retrieved songs will share. For example, by selecting "Stairway to Heaven" as the seed, the user expects that the songs retrieved will be similar to "Stairway to Heaven" in some manner but he will not know whether the songs will be from the same genre, year, etc. Therefore, the Automix feature does not perform substantially the same function in substantially the same way to obtain the same result as claim l's retrieval of songs associated with a user's selection of a predetermined category limitation.

Because there is no factual dispute about how the Automix feature functions and comparing that feature to claim 1 reveals that at least one element of claim 1 is absent from the feature, I conclude that no reasonable jury could find that defendant Napster's Automix feature infringes independent claim 1 of the ' 539 patent. Because claims 6 and 7 are dependent from claim l, a device cannot infringe claims 6 or 7 if it does not infringe claim 1. Accordingly, Napster's request for summary judgment on plaintiff's claim that its Automix feature infringes claims 6 and 7 of the ' 539 patent will be granted.
b. Claim 15 of the ' 539 patent

Defendant Napster contends that its Automix feature does not infringe indpendent claim 15 of the ' 539 patent for the same reasons it does not infringe claim 1, that is, the feature does not search for song selections using user-selected categories or characteristics. Plaintiff disputes Napster's contention using the same arguments it relied on in challenging Napster's contentions regarding claim 1. Thus, the result with respect to claim 15 is the same as the result under claim 1 .

Claim 15 of the '539 patent contains the following limitation:
selectively accessing predetermined of the plurality of selections and constructing a list of selections for playback as music based upon at least one of the predetermined characteristics entered by a user.
'539 pat., col. 17, lns. 10-13. Plaintiff contends that a user's selection of the Automix feature is the selection of predetermined characteristics or categories. This is incorrect, as discussed above. The Automix feature does not permit the user to select which characteristics of the seed he wants the list of retrieved songs to share with the seed. The feature causes Napster's system to activate its algorithm and search for songs that are similar to the seed in any number of ways but may not share any one characteristic with each other. In other words, the user chooses the seed and Napster's system chooses the characteristics; the user cannot enter predetermined characteristics. Thus, the Automix feature does not literally or by equivalence include the process of having a user enter predetermined
characteristics and retrieving songs that share the specifically entered characteristics.
Because there is no factual dispute about how the Automix feature functions and comparing that feature to claim 15 reveals that at least one element of claim 15 is absent from the feature, no reasonable jury could find that defendant Napster's Automix feature infringes independent claim 15 of the ' 539 patent or claim 16 , which is dependent from claim 15. Accordingly, Napster's request for summary judgment will be granted on plaintiff's claim that its Automix feature infringes claims 15 and 16 of the '539 patent.

## 2. Napster's My Library feature

Defendant Napster contends that its My Library feature does not infringe any claims of the '539 patent. Plaintiff does not respond to any of Napster's contentions about the My Library feature. Its failure to respond constitutes waiver. Wojtas v. Capital Guardian Trust Co., 477 F.3d 924, 926 (7th Cir. 2007) (failure to oppose argument constitutes waiver). Furthermore, because plaintiff alleges that the My Library feature infringes through use of the Automix feature and the Automix feature does not infringe either of the ' 539 patent's independent claims, the My Library feature cannot infringe any of the '539 patent's claims. Accordingly, Napster's request for summary judgment on plaintiff's claim that its My Library feature infringes claims 6,7 and 15 of the ' 539 patent will be granted.
3. Napster's radio station and playlist features

Defendant Napster contends that its radio station and playlist features do not infringe claims 6,7 or 15 of the ' 539 patent because its features do not search for or display songs that have category flags matching predetermined categories. How Napster's radio station and playlist features function is undisputed. Furthermore, Napster's radio station and playlist features operate in an almost identical fashion, with the only difference being immaterial to whether the features satisfy the matching limitation. Thus, the only issue is whether the matching limitation from claims 1 and 15 is present in the radio station and playlist features, either literally or by equivalence. I conclude that it is not.

The invention claimed by the ' 539 patent is a device or program that allows customized music playback by searching system databases for songs that have flags matching the category or categories selected by the user. For example, the user selects the "Rock" category button and the invention searches through its databases for each song that has a flag representing "Rock" and displays those songs for playback. Each song in the claimed invention's databases may have any number of searchable category flags. The claimed invention permits a user to search for songs using different combinations of categories for a fully customized and convenient music listening experience. For example, if the user selects the "dance mix" button, the system selects three songs with dance category flags and fast speed category flags followed by two songs with dance category flags and slow speed
category flags. '539 pat., col. 10, lns. 3-12. One specific limitation on the claimed device or program is that it provide
a plurality of category buttons constructed and arranged so that when a predetermined of the category buttons is activated, music selections having category flags matching the predetermined category of a respective of the buttons are selected and listed on the display.

Id. col. 15, lns. 62-67; col. 18, lns. 1-6. This limitation requires music selections to have category flags that match the user-selected predetermined category.

Defendant Napster's radio station and playlist features do not search its databases for songs with category flags that match the radio station or playlist selected by the user. Napster's programmers create a finite list of songs associated with each radio station and playlist, referred to as a track list. The TrackIDs associated with the songs found on a radio station or playlist track list do not contain any markers or flags matching the appropriate radio station or playlist. Instead, each radio station has a unique RadioID number and each playlist has a unique PlaylistID number and those unique numbers are associated with a track list of TrackIDs. Thus, when a user selects a 1970's Rock music radio station, the Napster system searches for the corresponding RadioID and, once it finds it, picks about 250 TrackIDs from the RadioID's track list. Then the system must retrieve the 250 TrackIDs for playback.

The way Napster's radio station and playlist features function is not the same as the
claimed invention's function or equivalent to it because the Napster features do not search for songs with category flags that match a predetermined category. Napster's system employs a fundamentally different organization and searching of its music. Instead of having searchable category flags associated with each song and a system that allows a user to search for music having those flags, Napster programmers create track lists associated with unique RadioIDs and PlaylistIDs. Its system allows a user to access the songs on the track lists. Thus, the way Napster's radio station and playlist features function is not literally or substantially the same as the way the inventions claimed in claims 1 and 15 of the ' 539 patent function.

Because there is no factual dispute about how the radio station and playlist features function and comparing those features to claims 1 and 15 reveals that at least one element of those claims is absent from the features, no reasonable jury could find that defendant Napster's radio station and playlist features infringe independent claims 1 or 15 or dependent claims 6,7 and 16 of the ' 539 patent. Accordingly, Napster's request for summary judgment on plaintiff's claim that its radio station and playlist features infringes claims $6,7,15$ and 16 of the ' 539 patent will be granted.

## C. Napster's Accused Device and the '471 Patent

Plaintiff has alleged that only defendant Napster's Automix and radio station features
infringe the '47l patent. Napster contends that these features do not infringe independent claim 35 of the ' 471 patent for many of the same reasons they do not infringe the ' 539 patent. For example, the Napster features do not search for and retrieve media or data files having user-selected categories. In addition, Napster contends, its Automix and radio station features do not infringe claim 35 because they do not have a "categorizer" as defined in the claim language. Plaintiff challenges Napster's contention with respect to its Automix feature, but it says nothing about Napster's contention about the radio feature. That failure to respond constitutes waiver. Wojtas, 477 F.3d at 926.

Before determining whether the Automix feature infringes claim 35, I must construe the term "categorizer" because it was not construed in the Claims Construction Order, dkt. \# 147. Claim 35 of the ' 471 patent contains the following limitation:
a media/data selection categorizer which allows a user of the system to associate with said media/data selections one or more of said category flags and to store said one or more category flags with their associated media/data selections in said storage device; '471 pat., col. 29, lns. 38-42. From this unambiguous claim language I conclude that the "categorizer" is an apparatus for (1) creating user-defined categories by allowing the user to associate category flags with media or data files and (2) making songs associated with userdefined categories searchable by saving the category flags associated with the user-defined categories with the appropriate media/data files. The ' 471 patent's specification further supports this definition of the categorizer:

A significant feature of the center $\mathbf{1 0 0 0}$, to be described in greater detail below, is the organization of individual media/data selections according to specific user-defined categories, that are assigned manually or automatically at time of import or at a later time. These categories are carried in a database, along with the raw digital media/data, and allow the user to playback each of the individual selections based upon specific categories in a random or ordered manner. The use of user-defined categories for storage and playback empowers the user to choose media/data based upon his specific desire or mood that relates to categories such as artist, title, producer, year, main category, energy, speed, style, type, rating or favorites.
6. The categories associated with each media/data selection can be changed by the user at any time.

As discussed above, the user can define or assign categories to be associated with the media/data selections. The category value or information are stored in the database in records for each selection.

According to steps 1714, 1716, 1718 and 1720, category information of the individual tracks may be modified.

Id. col. 18, lns. 5-17, 64-65; col. 19, lns. 54-57; col. 22, lns. 29-30.
Plaintiff contends that the Automix feature is a categorizer because the user's choice of a seed allows the user to create a new category of songs, similar to seed X category. However, plaintiff misunderstands the way in which the Automix feature functions. When using the Automix feature, the user does not define which categories or characteristics Napster's system's algorithm will use to search and retrieve similar songs. The Automix
feature does not "allow the user to playback each of the individual selections based upon specific categories." '471 pat., col. 18, lns. 10-12. (Emphasis added.) Instead, as previously explained, the Automix feature employs an algorithm to search out and retrieve songs. The system may return one song that shares characteristics $\mathrm{X}, \mathrm{Y}$ and Z and another song that shares characteristics W and X. Accordingly, the Automix feature cannot literally infringe claim 35 because it does not allow users to define categories and associate selections with those categories.

Furthermore, I am not persuaded by plaintiff's argument that permitting a user to create "new" categories by combining existing flags that are already associated with a media or data file satisfies the categorizer limitation. If plaintiff's contention were true and the user were merely combining category flags already associated with the selections, a user would not need to "associate with said media/data selections one or more of said category flags," '471 pat., col. 29, lns. 39-40 (emphasis added). Associating a category flag with a selection requires that the two items start unattached. Thus, a categorizer must enable the user to associate categories with selections. The Automix feature does not provide such a function.

I disagree with plaintiff's argument that the reference in the claim language to "said" category flags supports the conclusion that a combination of already associated category flags is enough to satisfy the categorizer limitation. It is true that the reference to "said" category
flags refers to identifiers that are part of the system and can be associated with selections. However, the presence of certain category flags on the system does not mean that they are all associated with the selections. For example, if there is a "genre" category flag, a selection may not have an associated genre category flag because none was associated with the selection by the system provider. If the user decides that the song genre is "Rock," he could use the categorizer to associate a rock genre category flag with the selection. Thus, the user would be associating a "said" category flag with a selection.

Finally, the Automix feature does not infringe the categorizer limitation under the doctrine of equivalents. Plaintiff contends that the Automix feature functions in substantially the same way as the categorizer because it "allow[s] a user to create a new category by identifying traits of the seed song and requesting songs with similar traits," Plt.'s Opp. Br., dkt. \#222, at 36-37, but that is not how Automix functions. The user is not creating a new category because the user does not choose or identify which traits of the seed songs should be used to retrieve similar songs. Plaintiff's categorizer allows a user to define category Y and associate selection X with category Y. Nothing in the use of the Automix feature provides any substantially similar function.

Because there is no factual dispute about how the Automix feature functions and comparing that feature to claim 35 reveals that at least one element of that claim is absent from the feature, no reasonable jury could find that defendant Napster's Automix feature
infringes independent claim 35 or dependent claims $36,45,46,47,48$ and 49 of the ' 471 patent. Accordingly, Napster's request for summary judgment on plaintiff's claim that Napster's Automix feature infringes claims $35,36,45,46,47,48$ and 49 of the ' 47 l patent will be granted.

## D. Indirect Infringement by Napster

Plaintiff alleges that even if defendant Napster's device does not directly infringe the '539 and '471 patents, Napster infringes plaintiff's patents indirectly by inducing others to infringe, 35 U.S.C. § 27 l (b), or contributing to others' infringement, 35 U.S.C. § 271 (c). "In order to prevail on an inducement claim, the patentee must establish first that there has been direct infringement, and second that the alleged infringer knowingly induced infringement and possessed specific intent to encourage another's infringement." Broadcom Corp. v. Qualcomm Inc., 543 F.3d 683, 698 (Fed. Cir. 2008) (internal quotations omitted). For Napster to be liable as a contributory infringer, plaintiff must prove that some third party using Napster's device in combination with another device directly infringes the patents. Ricoh Co.v. Quanta Computer Inc., 550 F.3d 1325, 1337 (Fed. Cir. 2008). The undisputed facts establish that Napster's device does not directly infringe either the '539 patent or the '471. Plaintiff has failed to adduce any evidence to raise a genuine issue of material fact about whether a third-party could use Napster's device in conjunction with
another device to directly infringe either patent. Therefore, no reasonable jury could determine that Napster's device infringes either the '539 or '471 patent indirectly.

## E. Pandora's Accused Device and the ' 539 Patent

Plaintiff alleges that defendant Pandora's internet radio, Pandora ${ }^{\circledR}$ Radio, infringes independent claim 15 of the '539 patent. Pandora denies that it does, arguing that, like defendant Napster's Automix feature, its internet radio does not allow a user to select and play back music according to user-selected predetermined characteristics and its internet radio does not select songs by matching category flags to predetermined categories selected by the user. I agree that Pandora's internet radio system functions in a way similar to Napster's Automix feature. Thus, many of the same reasons supporting the conclusion that Automix does not infringe claim 15 support the conclusion that Pandora Radio does not infringe claim 15.

For example, like Napster's Automix feature, Pandora's internet radio uses an algorithm to analyze and retrieve songs, as opposed to retrieving song selections based upon user selection of predetermined categories or characteristics. Pandora's system turns each song into a genetically unique individual entity. Its system uses an algorithm that analyzes 400 attributes, which are called "genes," of each song or artist seed, after which the algorithm searches for songs that have a genetic make-up similar to the seed. Next,

Pandora's system creates a four song set containing songs similar to the seed, where the level of similarity is determined by comparing the musicological distance between the gene vectors of the songs and the seed. The user does not get to select which characteristics Pandora's system will use to obtain similar songs. Furthermore, Pandora's system does not search for songs flagged as similar to the seed or even songs with flags matching flags associated with the seed. Therefore, there is no user-entered predetermined characteristic or category used to create song lists.

Even assuming, as plaintiff contends, that each gene could be considered a category flag and a seed is a category unto itself, Pandora's system does not match each gene in the seed to each gene in candidate songs. Pandora ${ }^{\circledR}$ Radio looks for songs with similar genes; it is not limited to songs with matching genes. For example, Pandora's internet radio might select song X because of similar vocal genes and song Y because of similar guitar genes. It is not limited to songs that have identical "twang" genes. It may start with a seed with a 3.5 value on a 5.0 scale for the vocal twang gene and choose a candidate song with a 2.0 value for its twang gene. This function is different from the '539 patent's matching function; using that function, for example, a user of the patented invention who wants to listen to songs categorized as a "Rock" song, selects the "Rock" category button and the system searches for songs with associated flags that match the selected category, that is, songs with associated "Rock" flags. Pandora does not employ the '539 patent's matching function.

Furthermore, even assuming that songs having genes with similar but not the exact values of the seed's gene values were enough to match the seed's genes to a song's genes, there still is not a matching of category flags to a predetermined category. According to claim 15, the program returns music selections that have category flags matching the selected predetermined category. This means that retrieved music selections must be associated with all the category flags that define the boundaries of the selected category. For example, if the category is "Rock's Greatest Hits - 1990," the retrieved music selections must have a "Rock" flag, a "Greatest Hits" flag, and a "Year" flag that falls within the 1990s. Thus, if a seed is considered a predetermined category and genes are considered as category flags, the system would not infringe unless retrieved songs' genes matched all the seed's genes because all the seed's genes would define the category. The user is not allowed to choose which specific genes define the category. Returning to our twang gene example, in an infringing system, if the seed has a twang gene, the retrieved songs must have a twang gene at the very least.

However, in Pandora's system, all the genes associated with the seed do not necessarily match the genes in retrieved songs because the similar genes between each candidate song and the seed may vary from song to song on the retrieved song set. In other words, song X may be retrieved for playback even though it has no twang gene so long as it has enough other similar genes to place it close to the seed in musicological distance. Thus, Pandora Radio does not function in the same or equivalent manner as the invention claimed
under claim 15 because it does not retrieve songs by matching category flags with a predetermined category selected by the user.

Because there is no factual dispute about how Pandora's internet radio functions and comparing the radio to claim 15 reveals that at least one element of that claim is absent from the radio, no reasonable jury could find that defendant Pandora's internet radio infringes independent claim 15 of the '539 patent. Accordingly, Pandora's request for summary judgment on plaintiff's claim that Pandora's internet radio infringes claim 15 of the ' 539 patent will be granted.

## F. Pandora's Accused Device and the '471 Patent

Plaintiff alleges that defendant Pandora's internet radio infringes independent claims 1 and 35 of the ' 471 patent as well as several of the patent's dependent claims. Although defendant Pandora raises several new arguments about why its internet radio does not infringe, it also reasserts many of the same arguments it raised with respect to claim 15 of the '539. For example, Pandora contends that its internet radio does not allow a user to select and play back music according to user-selected categories and does not select songs having user-selected categories. I conclude that Pandora's internet radio does not infringe claim 1 or claim 35 of the ' 471 patent.

Claims 1 and 35 of the ' 471 patent contain the following limitation, which is similar
to the matching limitation in claim 15 of the ' 539 patent:
a selector responsive to user activation of at least one of said category selection buttons . . . which automatically selects for retrieval . . . and automatically generates, a playlist of those of said media/data selections having the user selected category . . .;
a selector responsive to user activation of at least one of said category selection buttons which automatically selects for retrieval . . . an automatically generates, a playlist of only those of said media/data selections having the user selected category ...;
'471 pat., col. 27, lns. 45-50; col. 29, lns. 45-50. Without repeating the entire analysis discussed above in relation to claim 15 of the ' 539 patent, I find two reasons why Pandora's internet radio does not infringe the quoted limitation from claims 1 and 35 of the '471 patent. First, whether the user selects the seed or a radio station seeded by Pandora, Pandora® Radio's use of an algorithm to search and retrieve songs similar to the seed does not allow the user to select the category or categories the system will use to obtain similar songs. A user of Pandora's system is not selecting any categories; he is selecting a seed that contains many different variables, Pandora's algorithm chooses which variables to include in a calculation that produces songs similar to the seed. Second, even assuming a seed is a user-selected category, the songs retrieved by Pandora's system do not have the selected category as defined by the seed's genes because of the variations between each retrieved song's musical genetic make-up and the seed's musical genetic make-up.

Because there is no factual dispute about how Pandora's internet radio functions and comparing the radio to claims 1 and 35 reveals that at least one element of those claims is absent from the radio, no reasonable jury could find that defendant Pandora's internet radio infringes independent claims 1 and 35 or dependent claims $2,3,4,8,9,10,15,24,26,36$, 45, 48 and 49 of the ' 471 patent. Accordingly, Pandora's request for summary judgment on plaintiff's claim that Pandora's internet radio infringes claims 1, 2, 3, 4, 8, 9, 10, 15, 24, 26, $35,36,45,48$ and 49 of the ' 471 patent will be granted.

## G. Indirect Infringement by Pandora

Just as plaintiff alleges with respect to defendant Napster, it alleges that even if defendant Pandora's device does not infringe the '539 and '471 patent directly, Pandora infringes plaintiff's patents indirectly by inducing others to infringe, 35 U.S.C. § 271 (b), or contributing to others' infringement, 35 U.S.C. § $271(\mathrm{c})$. However, as with Napster’s device, plaintiff has failed to adduce any evidence to raise a genuine issue of material fact about whether a third-party could use Napster's device to infringe either patent directly. Without evidence of third-party direct infringement, no reasonable jury could determine that Pandora's device infringes either the ' 539 or '471 patent indirectly. Broadcom, 543 F.3d at 698; Ricoh, 550 F.3d at 1337.

## H. Invalidity

Defendants Napster and Pandora have also filed a joint motion for summary judgment on their affirmative defense of invalidity, dkt. \#177, which defendant J. River joined, dkt. \# 195. The purpose of affirmative defenses is to defeat claims brought against defendants. 5 Wright \& Miller, Federal Practice and Procedure Civil 3d § 1270 at 561 (2004). There is no need to decide additional affirmative defenses when one of defendants' affirmative defenses successfully defeats plaintiff's claim against them. Because defendants Napster's and Pandora's affirmative defense of non-infringement is successful in defeating plaintiff's infringement claims against them, the assertion of their affirmative defense of invalidity is moot. Vehicle IP, LLC v. General Motors Corp., 578 F. Supp. 2d 1107, 111920 (W.D. Wis. 2008) aff'd 2009 WL 27510 (Fed. Cir. Jan. 6, 2009). However, because defendant J. River did not seek summary judgment on non-infringement but joined the invalidity motion, the invalidity motion remains under advisement as far as it concerns plaintiff's claims against J. River. Thus, the only remaining claims in this case involve plaintiff and defendant J. River.

## ORDER

## IT IS ORDERED that:

1. Defendant Napster L.L.C.'s motion for summary judgment of non-infringement,
dkt. \#168, is GRANTED concerning defendant's non-infringement defense to plaintiff's claim that:

Defendant Napster's free and subscription music service web-sites, including its Automix, Playlist, radio station and My Library features, infringe claims 6, 7, 15 and 16 of the ' 539 patent and claims $35,36,45,46,47,48$ and 49 of the ' 471 patent directly, either literally or by equivalence, or indirectly.
2. Defendant Pandora Media, Inc.'s motion for summary judgment on noninfringement, dkt. \#171, is GRANTED concerning defendant's non-infringement defense to plaintiff's claim that:

Defendant Pandora's music service web-site infringes claim 15 of the '539 patent and claims $1,2,3,4,8,9,10,15,24,26,35,36,45,48$ and 49 of the ' 471 patent directly, either literally or by equivalence, or indirectly.
3. Plaintiff's complaint is dismissed as to defendants Napster and Pandora.

Entered this $7^{\text {th }}$ day of April, 2009.

## BY THE COURT:

/s/
BARBARA B. CRABB
District Judge

