Digital Audio Programming and Distribution Platform Architecture

The systems, tools and methods of using same to enable interactivity and data collection, in one embodiment, comprises an interface for content producers referred to as Producer Live and an interface for consumers referred to as Consumer Application, wherein Producer Live and the Consumer Application are in data communication with a network. Producer Live may be a tool that allows a podcaster or radio broadcaster to create a code comprising a plurality of items arranged in a sequence selected by the podcaster or radio broadcaster, wherein at least one of the items is an action prompt and at least one of the items is an audio file. The Consumer Application may be a tool for consumers to interface with a representation of the code to receive information encoded in the action prompt about the audio file or a product, and have the option to provide feedback to the podcaster or radio broadcaster about the information received. The disclosure also provides for methods of training individuals in creating a profile on the Consumer Application that comprises adding a play list of audio files made available by the podcaster or radio broadcaster through Producer Live.
DIGITAL AUDIO PROGRAMMING
AND DISTRIBUTION PLATFORM ARCHITECTURE

RELATED APPLICATION

[0001] This application claims a benefit of priority to U. S. Provisional Patent Application No. 62/059,054, filed October 2, 2014, entitled “SYSTEMS, TOOLS AND METHODS OF USING SAME TO ENABLE INTERACTIVITY AND DATA COLLECTION,” the entirety of which is hereby incorporated by reference herein and is made part of the present specification.

BACKGROUND

[0002] This application relates to the broadcasting radio industry, its influence on podcasting, and improvements to digital audio programming and distribution that enable interactivity between content producers and their audience. In general, podcasts are digital files or recordings that are often part of a themed series; the digital files can be released on some regular schedule (for example, daily or weekly) and downloaded from the Internet. Unlike webcasting or Internet streaming, consumers can enjoy podcasts in an offline listening environment.

SUMMARY OF EMBODIMENTS

[0003] The broadcast radio industry has been experiencing competition from digital competitors. The proliferation of portable digital devices and the increasing ubiquity of Internet access are challenging the way in which content producers distribute audio content and engage listeners. The broadcast radio industry relies on advertising as its main source of revenue and cannot effectively engage with its listeners. Although podcasts use the Internet as a distribution platform, they have modeled the distribution of their product on the broadcast industry and thus also struggle with advertising revenue and audience interaction.

[0004] Advertisers accustomed to detailed and actionable data available from online marketing campaigns are increasingly reluctant to spend money on radio
advertisements. Radio shows do not possess or generate detailed data that indicate how many individuals have heard their advertisement, nor do they possess or generate detailed data that indicate the response rate they received from promotions or advertisements broadcasted during their show. The only statistically reliable data that radio shows typically have about their show audience is collected through rating agency surveys, which are released infrequently, are expensive, and only provide an approximation based on statistical probabilities. Podcasts face similar difficulties despite being distributed over the Internet. The most detailed and most frequently touted, industry-standard data about a podcast’s audience is the number of times the podcast is downloaded. This data, however, is often unreliable; it indicates little about a podcast’s dedicated audience, and it rarely demonstrates anything about the audience’s composition or behavior. For more specific data and behavioral analytics, both podcasts and broadcast radio shows must rely on external software—such as social media platforms and website analytics—to gather additional data about their listeners. These third-party platforms necessarily only capture a portion of a show’s true reach, and provide only marginally more valuable data for advertisers and other interested parties.

[0005] Broadcast radio shows and podcasts face similar problems with audience interaction. Currently there is no single computing system and technological interface that allows content producers to program and associate interactive advertisements in digital shows, that facilitates the distribution of such digital shows, and that allows consumers to directly respond to “calls-to-action” by the host, speaker and/or the content of a show; consumers need to rely on memory and secondary technological interfaces to respond to a host’s or speaker’s “calls to action” or interact with the show. For example, both radio shows and podcasts frequently rely on websites, blogs, Facebook, Twitter, and other online services to promote products, share links to content or information, or engage in discussions with their listeners about their show or podcast. Reliance on these third-party services puts a barrier between consumers in their engagement with the radio show or podcast. Both users and digital audio producers express demand for an improved way for consumers to find, listen to, and interact with shows and podcasts.

[0006] In one embodiment, a computing system to enable interactivity and data collection is disclosed. The computing system may include one or more hardware computer
processors; and one or more storage devices configured to store software instructions configured for execution by the one or more hardware computer processors in order to cause the computing system to host and distribute digital audio signals (for example, radio shows or podcasts), and to push dynamic, customizable action prompts to users of the computing system that allow the users to interact with the audio content (so that users, for example, can directly respond to “calls-to-action” that are broadcast during a radio show or podcast). In one embodiment, the action prompts may include opportunities for users to purchase a product, review a product, answer a poll, place a phone call, send a text message, send an email, link to a webpage or other online content, tweet or send a message on another social media network, sign a petition, donate to a charity, sign up for an email newsletter, share content on a social media site, “like” a social media page or account, follow a social media page or handle, read data on a social media site, comment on a piece of social media data, or set a reminder, among other actions.

[0007] In one embodiment, these action prompts are managed by the digital audio producer/broadcaster and may be linked to a particular portion or point in the timecode of one piece of audio content or they may be linked to portion or point in the timecode of a set of audio content. In one embodiment, the computing system is configured to receive audio content and action templates from one or more data sources to generate a digital audio program, and to distribute the digital audio program to one or more devices that are in networked communication with the computing system. The computing system, in one embodiment, receives audio content by fetching the content from web feeds in accordance with certain user instructions and preferences entered into an application tool of the computing system.

[0008] In one embodiment, the action prompts are an active and integrated part of the production and user experience of digital audio content. The computing system, in one embodiment, generates a digital audio program by matching certain audio content stored in the computing system with a certain action prompt from a catalog or collection of action prompt templates stored in the computing system, and associating those data sets in accordance with certain user instructions and preferences entered into an application tool of the computing system. A digital audio producer/broadcaster may associate and push action
prompts to the user at pre-determined time-marks in an audio show or in real time, which in one embodiment, causes to improve the user experience of making purchases on a computing device and/or communicating information to the producer/broadcaster. The computing system may cause these action prompts to appear within the same visual frame of the system where users can control the show (for example, with pause, play, rewind, fast forward, and volume options, among others) making the action prompts intentionally designed to be integrated into the user experience.

[0009] In another embodiment, a computing system is disclosed that can be used by digital audio producers/broadcasters to schedule the delivery of, and duration of access to, digital content. The computing system may include one or more hardware computer processors; and one or more storage devices configured to store software instructions configured for execution by the one or more hardware computer processors in order to cause the computing system to permit a user to schedule the delivery of and duration of access to digital content, and sell access to premium content. In one embodiment, the system permits digital audio producers/broadcasters to dynamically prompt users to purchase products in a linked online market (for example, Amazon’s Marketplace, an online vendor that accepts payment through PayPal) or call/text organizations or people relevant to the content itself, rather than limiting purchases to the commoditized audio being broadcast (for example, the song or album being listened to) or calls/texts to the producer/broadcaster of the show.

[0010] In another embodiment, a computing system is disclosed that gathers data on individual user activity and is capable of providing de-identified reports to digital audio producers/broadcasters, advertisers, and other organizations and entities.

[0011] In another embodiment, a computing system is disclosed that is composed of connected applications working in concert, the connected applications comprising a consumer application designed for consumers and a producer application designed for digital audio content producers. In another embodiment, the connected applications further comprise an admin application for the overall administration of the computing system.

[0012] In one embodiment, the consumer application is an application used by consumers who want to listen to and interact with digital audio, and is an application that can be installed on the consumers’ computing device(s).
[0013] In one embodiment, the producer application is an application used by digital audio content producers who wish to utilize the computer system to program and distribute their digital audio content. In another embodiment, the producer application is an application that can be used by digital audio content producers and/or the entity responsible for hosting the computing system to do tasks associated with managing/administering the digital audio content in the computing system. The producer application can be a web-based application or an application that can be installed on the content producer’s computing device(s).

[0014] In one embodiment, the admin application is an application used by the entity responsible for hosting the computer system to do tasks associated with managing/administering the digital audio content in the computing system, and may include the management of new and existing content producers, analyzing user data and crash reports, and running system-wide reports, among other tasks. The admin application can be either a web-based application or an application that can be installed on computing devices.

[0015] In one embodiment, a computerized method is disclosed comprising: accessing computer-executable instructions from at least one computer-readable storage medium; and executing the computer-executable instructions, thereby causing computer hardware comprising at least one computer processor to perform operations comprising: receiving, by a server computer through a communication link, data associated with an electronic audio data package; receiving, by the server computer, action prompt template data associated with a plurality of action prompt templates, each of the plurality of action prompt templates indicating interactive activity for a user to interact with electronic audio data packages; rendering, by the server computer, a graphical user interface for displaying in a display device in communication with the server computer, the graphical user interface including an interface that allows a producer to associate a portion of the electronic audio data package with an action prompt instance of one of the plurality of action prompt templates and to customize the action prompt instance of the plurality of action prompt templates to include an interaction related to the portion of the electronic audio data package; and generating an updated electronic audio data package that includes a data structure storing information about the customized action prompt instance.
[0016] In one embodiment, the electronic audio data package of the computerized method may comprise audio podcast data. In one embodiment, the data structure of the computerized method further stores information about a point in time of the electronic audio data package at which the customized action prompt instance is to be displayed by a consumer-facing graphical user interface. In one embodiment, the interactivity included in the plurality of action prompt templates includes two or more of: purchasing a product, reviewing a product, answering a poll, placing a phone call, sending a text message, sending an email, linking to online content, linking to a webpage, sending a message on another social media network, signing a petition, donating to a charity, signing up for an email newsletter, sharing content on a social media site, liking a social media page, following a social media page, reading data on a social media site, commenting on a piece of social media data, displaying an image, displaying a video, displaying digital media, or setting a reminder. In one embodiment, the graphical user interface of the computerized method includes a visual representation of audio data stored in the electronic audio data package. In one embodiment, the visual representation of the audio data stored in the electronic audio data package is a waveform. In one embodiment, the graphical user interface of the computerized method further includes an action prompt creation tool to allow a producer to create a new action prompt instance or a new action prompt template.

[0017] In one embodiment, a non-transitory storage medium is disclosed having computer-executable instructions stored thereon, the computer-executable instructions readable by a computing system comprising one or more computing devices, wherein the computer-executable instructions are executable on the computing system in order to cause the computing system to perform operations comprising: receiving, by a server computer through a communication link, data associated with an electronic audio data package; receiving, by the server computer, action prompt template data associated with a plurality of action prompt templates, each of the plurality of action prompt templates indicating interactive activity for a user to interact with electronic audio data packages; rendering, by the server computer, a graphical user interface for displaying in a display device in communication with the server computer, the graphical user interface including an interface that allows a producer to associate a portion of the electronic audio data package with an
action prompt instance of one of the plurality of action prompt templates and to customize
the action prompt instance of the plurality of action prompt templates to include an
interaction related to the portion of the electronic audio data package; and generating an
updated electronic audio data package that includes a data structure storing information about
the customized action prompt instance.

[0018] In one embodiment, the electronic audio data package of the non-transitory
storage medium comprises audio podcast data. In one embodiment, the data structure of the
non-transitory storage medium further stores information about a point in time of the
electronic audio data package at which the customized action prompt instance is to be
displayed by a consumer-facing graphical user interface. In one embodiment, the interactivity
included in the plurality of action prompt templates includes two or more of: purchasing a
product, reviewing a product, answering a poll, placing a phone call, sending a text message,
sending an email, linking to online content, linking to a webpage, sending a message on
another social media network, signing a petition, donating to a charity, signing up for an
email newsletter, sharing content on a social media site, liking a social media page, following
a social media page, reading data on a social media site, commenting on a piece of social
media data, displaying an image, displaying a video, displaying digital media, or setting a
reminder. In one embodiment, the graphical user interface of the non-transitory storage
medium includes a visual representation of audio data stored in the electronic audio data
package. In one embodiment, the visual representation of the audio data stored in the
electronic audio data package is a waveform. In one embodiment, the graphical user interface
of the non-transitory storage medium further includes an action prompt creation tool to allow
a producer to create a new action prompt instance or a new action prompt template.

[0019] In one embodiment, a computer system is disclosed for editing electronic
audio data packages, the computer system comprising: a computer processor and non-
transitory computer-readable media combined with the computer processor configured to
provide a program that includes a set of instructions stored on a first server, the set of
instructions being executable by the computer processor, and further configured to execute a
audio data package editing module of the program; the audio data package editing module of
the program configured to: receive data associated with an electronic audio data package;

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receive action prompt template data associated with a plurality of action prompt templates, each of the plurality of action prompt templates indicating interactive activity for a user to interact with electronic audio data packages; render a graphical user interface for displaying in a display device in communication with the server computer, the graphical user interface including an interface that allows a producer to associate a portion of the electronic audio data package with an action prompt instance of one of the plurality of action prompt templates and to customize the action prompt instance of the plurality of action prompt templates to include an interaction related to the portion of the electronic audio data package; and generate an updated electronic audio data package that includes a data structure storing information about the customized action prompt instance.

[0020] In one embodiment, the electronic audio data package of the computer system comprises audio podcast data. In one embodiment, the data structure of the computer system further stores information about a point in time of the electronic audio data package at which the customized action prompt instance is to be displayed by a consumer-facing graphical user interface. In one embodiment, the interactivity included in the plurality of action prompt templates includes two or more of: purchasing a product, reviewing a product, answering a poll, placing a phone call, sending a text message, sending an email, linking to online content, linking to a webpage, sending a message on another social media network, signing a petition, donating to a charity, signing up for an email newsletter, sharing content on a social media site, liking a social media page, following a social media page, reading data on a social media site, commenting on a piece of social media data, displaying an image, displaying a video, displaying digital media, or setting a reminder. In one embodiment, the graphical user interface of the computer system includes a visual representation of audio data stored in the electronic audio data package. In one embodiment, the visual representation of the audio data stored in the electronic audio data package is a waveform. In one embodiment, the graphical user interface of the computer system further includes an action prompt creation tool to allow a producer to create a new action prompt instance or a new action prompt template.
BRIEF DESCRIPTION OF THE DRAWINGS

[0021] FIG 1 shows one embodiment of the computing system featuring a log-in screen for Producer Live.

[0022] FIG 2A shows one embodiment of the computing system featuring a dashboard for Producer Live.

[0023] FIG 2B shows one embodiment of the computing system featuring an interface within Producer Live to enable a user to record, upload, and program digital audio episodes for distribution through the Consumer Application.

[0024] FIG 2C shows one embodiment of a report displaying a visual analysis of data collected by the computing system that may be presented through Producer Live.

[0025] FIG 3A shows a flowchart for one embodiment of the computing system depicting a process of programming and distributing digital audio content.

[0026] FIG 3B shows a flowchart for one embodiment of the computing system depicting a process of receiving digital audio content by fetching episodes of a podcast.

[0027] FIG 3C shows a flowchart for one embodiment of the computing system depicting a process of generating a digital audio program such as an audio show or podcast with action prompts.

[0028] FIG 3D shows a flowchart for one embodiment of the computing system depicting a process of associating action prompts with digital audio content to generate a digital audio program.

[0029] FIG 4 shows a flowchart for one embodiment of the computing system depicting the screens through which a new user would navigate to use the Consumer Application.

[0030] FIG 5 shows a flowchart for one embodiment of the computing system depicting the screens through which a returning user would navigate to use the Consumer Application.

[0031] FIG 6 shows one embodiment of a Consumer Application user interface featuring a Marketplace page for a mobile device.

[0032] FIG 7 shows one embodiment of a Consumer Application user interface featuring a Show Card page for a mobile device.
[0033] FIG 8 shows one embodiment of a Consumer Application user interface featuring a show or episode information page for a mobile device.

[0034] FIG 9 shows one embodiment of a Consumer Application user interface featuring a screen in which users can play and listen to episodes on a mobile device.

[0035] FIG 10 shows one embodiment of a Consumer Application user interface featuring a My Shows page for a mobile device.

[0036] FIG 11 shows one embodiment of a Consumer Application user interface featuring a Settings page for a mobile device.

[0037] FIG 12 shows a diagram of one embodiment of the computing system displaying a data sharing relationships between Consumer Application, API, and Producer Live, and examples of people who may interface with Consumer Application, API, and Producer Live.

[0038] FIG 13 shows a diagram of one embodiment of the computing system in communication with a network and various systems that are also in communication with the network.

[0039] FIG 14 shows a diagram of one embodiment of the programming and distribution module shown in FIG 13.

DETAILED DESCRIPTION OF EMBODIMENTS

[0040] The systems, tools and methods of using same to enable interactivity and data collection, in one embodiment, comprises three tools including a producer application tool and interface for content producers referred to as Producer Live, a consumer application tool and interface for consumers referred to as Consumer Application, and an admin application tool and interface for administrators of the system referred to as Admin Package.

[0041] Content producers can upload files and data (for example, digital audio, customized prompts, commercial break cues, brand materials and information) onto the Producer Live tool, and customize the way in which that data will appear in the Consumer Application tool for users to consume. Through the Producer Live tool, content producers can create action prompts (that may, for example, be tied to certain “calls to action” broadcasted during a show) to be displayed through the Consumer Application tool that encourage a
consumer to take action with respect to the action prompts. For example, a content producer could create a prompt recommending the purchase of a particular book; the Consumer Application would display the recommendation and provide an opportunity for the consumer to purchase or save the recommended book for later purchase.

Through the Producer Live tool, content producers may also receive and exchange data (for example, links to and information about resources and products) with third parties. For example, content producers may receive information from a social media service (for example, Facebook), or product information from third party websites to review and recommend to consumers (such as in the earlier book recommendation example). The data received from third parties may be displayed in the Producer Live tool as an action prompt template, which a content producer may use when creating a program for distribution.

[0042] Consumers may interact with the system through the Consumer Application tool. In one embodiment, consumers may download the Consumer Application tool from the Internet onto their mobile device or other computing device. The Consumer Application tool, in one embodiment, will display content that has been inputted by content producers into the system through the Producer Live tool. The Consumer Application tool, in one embodiment, will provide consumers with an opportunity to listen to and view content uploaded by content producers, and consumers will have the option to take action with respect to customized action prompts inputted into the system by content producers and/or third parties. For example, in the event that a content producer creates an action prompt recommending the purchase of a particular book, the consumer will have the opportunity to respond to the prompt by selecting options such as purchasing the book or saving the book for later purchase. The consumer can create accounts in the system by inputting profile information through the Consumer Application tool. The system will process consumers’ profile information, their responses to customized action prompts and their listening behavior, store that data, provide general de-identified information to content producers and/or third parties on the system’s listener activity and responses to action prompts, and provide administrators with information relating to the Consumer Application tool including user activity and uptime availability.
[0043] Administrators may interact with the system through the Admin Package tool. In one embodiment, administrators may view (through the Admin Package tool) user activity data collected from the system and reports of any system crashes collected from the Consumer Application tool and/or the Producer Live tool. The system may de-identify the user activity so that the user activity data will not reveal any personal identifiable information about a particular user of an application of the system. Administrators may also view and share data with third parties through the Admin Package tool. For example, administrators may enter and save third party account information for use by the system, and view data received by the system from third parties.

[0044] In another embodiment, the systems, tools and methods of using same to enable interactivity and data collection comprises at least two tools including the Producer Live tool and the Consumer Application tool, wherein administrators may use the Producer Live tool to interface with the system, obtain and review information from the system, and interface with consumers, content producers and third parties without the need of using the Admin Package tool. The Producer Live tool of one such embodiment has features and functions of the Admin Package tool.

[0045] In another embodiment, the systems, tools and methods of using same to enable interactivity and data collection comprises at least one tool including the Producer Live tool, and an application programming interface (“API”). The API would enable the system to interface with third-party applications. In one embodiment, the API would enable the third-party applications to use action prompts from the system so that content producers would not need to re-program action prompts for their digital audio content on third-party applications. Through the API, the system can become a hub for content producers to program all of their digital audio content to be played on any device even if the device does not have the Consumer Application tool. In one embodiment, the API will permit a third-party application to stream action prompts directly from the system for delivery to users of the third-party application, for example, after: (1) the user starts listening to an audio show or podcast (regardless of whether the show or podcast has already been downloaded onto the third-party application); or (2) a user begins to download an audio show or podcast onto the third party application to listen later. If a user of the third-party application downloads an
audio show or podcast to listen later, action prompts and associated data from the system may be securely and directly delivered from the system to the user’s computing device rather than delivered from the system to a third-party server for later access and delivery. Content producers may use the API to insert one or more action prompts into or associate one or more action prompts with a show or podcast through Producer Live even if the digital audio content is not being hosted by the system and/or being viewed in the Consumer Application tool. The third party application that interacts with the system through the API may receive from the system (1) action prompts only with the digital audio content provided from another source, (2) action prompts with digital audio content which are both stored on the system, or (3) action prompts with digital audio content that the system fetches from a third party system, such as, for example, the content producer’s external web feed hosted on a different system.

[0046] In another embodiment, the Producer Live tool can have features for use by third-party advertisers to submit, administer, and track the success of their advertisements in the system. The advertisements may comprise of audio content about a product and action prompts programmed by the third-party advertiser. For example, the Producer Live tool could have features that would allow a third-party advertiser to upload an advertisement into the system and include information about the advertisement’s target demographic and/or target show type or category. In addition, the Producer Live tool could also have features that would allow an advertiser to monitor the consumer response rate to specific action prompts embedded in advertisements.

A. **Producer Live**

[0047] FIG. 1 illustrates one embodiment of a login screen 1000 for the Producer Live tool. The login screen 1000 is designed to be compatible with screens on mobile devices (for example, iPad), for laptops, and for desktops. In one embodiment, the Producer Live tool is a web application that will run in a browser, and the login screen 1000 will appear in the browser. In another embodiment, the Producer Live tool is an application for computers and may be downloaded from the Internet.

[0048] In one embodiment, when a user (for example, content producers, administrators) enters login information through the login screen 1000 and the login
information is accepted by the system as an active account, the user is taken to a dashboard 2000 (as shown, in one embodiment, in FIG. 2A). In one embodiment, the Admin Package tool or an administrator will create user accounts for Producer Live.

[0049] In one embodiment, the login screen 1000 may have a dialogue box 1010 for the user to enter a user name, a dialogue box 1020 for the user to enter a password, and a button 1030 for the user to submit the entered user name and password information into the system to verify the user’s credentials and authorize the user to interface with the system through the Producer Live tool. In one embodiment, there can be at least two user interfaces from which a user can interact with the system through the Producer Live tool – the dashboard 2000 and the interface 3000.

1. Dashboard

[0050] The dashboard 2000, in one embodiment, includes an overview of the data collected from the content producers’ show. As shown in FIG. 2A, the dashboard 2000 may include several features. In one embodiment, the dashboard 2000 includes a Main Menu 2010 and Screen Widgets 2020, 2030, 2040, 2050, 2060, 2070.

[0051] The Main Menu 2010 provides a directory of options (for example, dashboard link 2011, producer link 2012, episodes link 2013, reports link 2014, settings link 2015) through which users may access Producer Live’s features and analyze data about a content producer’s show. In one embodiment, if a user selects the producer link 2012, the system will direct the user to an interface 3000 (as shown for example in FIG. 2B), which will enable the user to use the system to record, upload, and program digital audio episodes and associated action prompts in the Producer Live tool for distribution through the Consumer Application tool.

[0052] Screen Widget 2020 provides a link to the show’s profile / brand information, and includes a link to interface 3000. Screen Widget 2030 provides a link to a show’s reviews and ratings based on data provided by users of the Consumer Application or API; this data, in one embodiment, could include reviews and comments about the show inputted onto a Show Card (see, for example, FIG. 7) by users of the Consumer Application or API. Screen Widget 2040 provides a list of the episodes for a show that has been broadcasted through the Consumer Application or API, and select data collected from the
system about each episode as it relates to users who listen to that episode through the Consumer Application tool or API, including—in one embodiment—the number of times the episode has been downloaded, the number of user interactions, and the show’s revenue per episode. In one embodiment, a content producer may select one of the episodes on the Screen Widget 2040 and obtain more information on the data collected by the system about the performance of the episode through the Consumer Application or API. For example, a content producer may obtain data about the prompts associated with that episode, the response rate to each prompt in that episode, how much of the episode consumers listened to, and the day and time consumers listened to the episode. Screen Widget 2050 provides a visual analysis of data collected by the system of the audience size and demographics per episode of users who receive broadcasts through the Consumer Application. Screen Widget 2060 provides a visual analysis of data collected by the system of the interactions between a show and listeners of that show through the Consumer Application. For example, the Widget might display the percentage of consumers who have subscribed to a show that respond to action prompts, or the number of consumers who have subscribed to the show. Screen Widget 2070 displays the total revenue earned through Consumer Application in connection with a show or a particular episode. Revenue can be earned, for example, through advertisements that are run during a show’s episode.

[0053] In one embodiment, the dashboard may further include a feature in a screen widget (not shown in FIG. 2A) for recommending certain third-party advertisements (and their associated action prompts) to content producers. The Producer Live tool may recommend these third-party advertisements while a content producer is managing and/or administering their digital audio content. The system will make the recommendation based on information about the type of consumers of the content producer’s digital audio content or shows, and the third-party advertiser’s desired target audience. The Producer Live tool will give content producers the option of approving or denying the recommended advertisements before an advertisement is added to the content producer’s digital audio content stream. The Producer Live tool may give content producers the option of playing the audio feed of a recommended advertisement, and reviewing any action prompts listed or displayed with the advertisement. If the content producer accepts a recommended advertisement, the Producer
Live tool may give the content producer the option of placing the advertisement and associated action prompts at a pre-determined time-mark in the digital audio content stream, or allow the system to randomly place the advertisement and associated action prompt at certain intervals in the content stream selected by the content producer (for example, in a commercial spot 3030 as shown in FIG. 2B).

[0054] In addition, in some embodiments, the Producer Live tool may provide the content producer and/or advertisers with data and statistics about the performance of the recommended advertisement such as, for example, the type of data shown in FIG. 2C. In one embodiment, the content producer would be able to access this data through Producer Live by clicking on the dashboard link 2011 and/or the reports link 2014.

2. **Interface for Content Producers**

[0055] The interface 3000 for content producers may allow users to record, upload and program digital audio episodes in the Producer Live tool for distribution through the Consumer Application tool or the API. The interface 3000, in one embodiment, includes a main menu 3010, a waveform bar 3020, a live view/preview pane 3060, an action prompt design pane 3070, and a catalog of stock and custom prompts 3120.

[0056] The main menu 3010 provides a directory of options (for example, dashboard 3011, producer 3012, episodes 3013, reports 3014, settings 3015) through which a user may access Producer Live’s features and analyze data about a show. If a user selects the dashboard link 3011, the system will take the user to a dashboard screen for content producers, which in one embodiment is similar to the dashboard 2000 shown in FIG. 2A.

[0057] The waveform bar 3020 provides a visual representation of a recorded show, and of the relationship between different time-marked sections of the audio and the action prompts programmed into the episode. A commercial spot 3030 can be inserted into or associated with the waveform by the content producer. In one embodiment, the commercial spot 3030 can be an advertisement that the content producer populates by creating an action prompt, which the system could facilitate by helping the content producer add content into an action template (found in the catalog of stock and custom prompts 3120, for example, 30 Sec Commercial), or by selecting a custom action prompt prepared by a third party vendor or advertiser. In another embodiment, the commercial spot 3030 can be populated by the system.
if the content producer drops an empty action template (for example, 30 Sec Commercial) into that commercial spot 3030. An action prompt 3040 can be inserted into or associated with the waveform by the content producer by, in one embodiment, dragging and dropping an action template into a specific location along the waveform bar 3020. The waveform bar 3020 may include a location marker/indicator that allows a content producer to visually see the location at which the content producer is currently recording or playing back already recorded audio.

[0058] The live view/preview pane 3060 is the action currently displayed on the Consumer Application. The purpose of the live view/preview pane 3060 is to allow a producer to be aware of what consumers are viewing so that the producer can activate the next action prompt at the desired time.

[0059] A content producer can use the action prompt design pane 3070 to program the next action. In one embodiment, the action prompt design pane 3070 includes pop-up dialogs 3080, a button to edit action prompts 3090, a button to preview custom prompts 3100, and a button to save custom prompts 3110. The pop-up dialogs 3080 displays data, such as external links or files, for use in the programmed action. The button to edit action prompts 3090 allows content producers to edit a pending action. The button to preview custom prompts 3100 allows producers to preview an action before publishing it. The button to save custom prompts 3110 allows producers to save an action as a template for later use.

[0060] The catalog of stock and custom prompts 3120 includes a directory of action templates, which allow content producers to create a new action prompt, view saved action prompts, or access template action prompts for the Consumer Application and/or API through the tabs 3121, 3122, 3123, respectively. Tab 3121 is a button to create new prompts. Tab 3122 is a button to view saved custom prompts. Tab 3123 is a button to view template prompts. If a template action does not require editing, and the template is ready for publication, the content producer can drag the template action to the waveform bar 3020 or to the live view/preview pane 3060 to publish those items immediately. The content producer can, alternatively, select the “go live” button (shown in FIG. 2B on the bottom-right corner of a template action) to signal to the Consumer Application that the template action is ready for publication, and the Consumer Application will publish that prompt without any changes at
the location of the location market/indicator in the episode currently being recorded or in the already recorded audio.

In one embodiment, the catalog of stock and custom prompts 3120 further includes a tab (not shown in FIG. 2B) for third-party advertisements. This advertisement tab could be a button to allow a content producer to select and view third-party advertisements (and their associated action prompts) and/or to enable a content producer to insert those advertisements into or associate those advertisements with an episode. In one embodiment, if the advertisement tab was selected, the interface 3000 would present the content producer with a list of third-party advertisements and the option to insert or create an association of those advertisements at specific time-lengths (for example, 15 seconds, 30 seconds) within an episode. In another embodiment, under the advertisement tab, the interface 3000 would present the content producer with the option of labeling a third-party advertisement as “random” or “random approved,” and permit the system to randomly place the advertisement and associated action prompt at certain intervals in the content stream selected by the content producer (for example, in a commercial spot 3030). In one embodiment, the system will prioritize third-party advertisements labeled as “random” based on certain characteristics of the episode; for example the system will look at the episode’s category type (for example, society & culture, personal journals, sports) and match that episode with third-party advertisements related to that category type. In another embodiment of the system’s treatment of “random” third-party advertisements, the system will look at the characteristics of the system’s users; for example, the system will look at the demographic of the system’s users (for example, location, age, gender) and match that user with third-party advertisements related to one or a combination of those demographic characteristics. The system may treat third-party advertisements labeled “random approved” in a similar manner as those advertisements labeled “random” except that the system will also attempt to limit the type of third-party advertisements inserted in or associated with an episode based on the time-length of the advertisement; Producer Live may give the content producer the option of approving certain time-lengths (for example, 15 seconds, 30 seconds) for advertisements broadcasted during an episode.
3. **Examples of Processes Performed by system**

[0062] FIGS. 3A through 3D are flowcharts illustrating various embodiments of processes performed by the system. In some embodiments, the processes are performed by embodiments of the system described with reference to features disclosed in FIGS. 2A and 2B. These example processes are intended to illustrate, and not limit, various aspects of the system.

[0063] FIG. 3A is a flowchart illustrating one embodiment of a process performed by the system to generate programmed content (for example, associating action prompts with a radio show or a podcast) and to provide an analysis of data collected in connection with the distribution of the programmed content. The programmed content may include a set of individual episodes. The action prompts may be associated with a show, with a subset of the episodes, or with a particular episode.

[0064] Beginning with block 3203, the system generates programmed content by, in one embodiment, receiving digital audio content 3201 and receiving action prompts 3202. The process of receiving digital audio content 3201 may involve the system obtaining an upload from a content producer through Producer Live, or the system fetching the content from a web feed on the Internet. The process of receiving action prompts 3202 may involve the system obtaining an upload of advertisements and/or action prompts from a content producer through Producer Live, from a third-party vendor or advertiser, and/or from an administrator of the system. After the system receives at least one digital audio content and at least one action prompt, the system generates programmed content 3203 by, in one embodiment, associating the action prompts with the digital audio content. The system may associate an action prompt with a digital audio content based on characteristics of the digital audio content (for example, show type, audio category), consumer demographic information (for example, age, gender, location, income), the length of the action prompt (for example, 15 sec., 30 sec.), and/or criteria entered into Producer Live by a content producer and/or advertiser. The action prompts may be tied to an entire programmed content or ties to specific portions of the programmed content. In addition, while the system may “insert” an action prompt into programmed content, this does not require that the action prompt have any audio component or that there is any interruption of the digital audio content. For example, an
action prompt to order a product may be inserted at time 3:45 of a show or podcast. This may mean at time 3:45, a visual action prompt appears on the Consumer Application tool that can be seen by a consumer while the show or podcast continues to play. It is recognized that in other embodiments, one or more of the pieces of digital audio content may be distributed without any action prompts.

[0065] After the system generates at least one programmed content, the system, in one embodiment, distributes the programmed content 3204 in accordance with instructions entered into Producer Live and/or as requested by a consumer through the Consumer Application or the API. As the system distributes programmed content, the system may monitor 3205 audience behavior with respect to the programmed content, and collects data 3206. For example the system may monitor the programmed content to determine whether consumers interact with any of the action prompts in the programmed content, the type of consumers that respond to an action prompt in the programmed content, and how the consumers responded to an action prompt. The system may store the data, de-identify the data, and/or analyze the data. In one embodiment, through the dashboard 2000, the system may provide reports 3207 showing an analysis of the data collected from a broadcast of programmed content. As noted above, in various embodiments, a third party application may be able to interact with the system via the API to receive from the system (1) action prompts only with the digital audio content provided from another source, (2) action prompts associated with digital audio content which are both stored on the system, or (3) action prompts associated with digital audio content, where the system first fetches the digital audio content from a third party system.

[0066] FIG. 3B is a flowchart illustrating one embodiment of the system receiving digital audio content by fetching an audio file (for example, a podcast) from a web feed on the Internet. The system may identify an audio file or show to fetch 32011 based on criteria entered into the system by content producers through Producer Live and/or consumers through the Consumer Application or API. The system may then create a reference list of episodes for the show 3212 for the content producer and/or consumers. The system will fetch an audio file and associated metadata from a third-party hosting server 3213, and then add the fetched audio file to the reference list 3214. The system will determine whether additional
episodes of the show were requested 3215 by the content producer and/or consumer; if so, the system will check if there are additional episodes in the show 3216 that are available for download from the applicable web feed and continue fetching shows for the reference list until all of the requested episodes have been fetched or there are no more episodes in the show.

[0067] FIG. 3C is a flowchart illustrating one embodiment of the system generating programmed content. The system may create a visual representation of the digital audio content 3221 that it receives from a content producer and/or from a web feed. In one embodiment, the visual representation can be a waveform bar (as shown in one embodiment in FIG. 2B through interface 3000). The system may index the digital audio content 3222 into time-marked sections for editing by a content producer. Depending on the preferences and instructions of the content producer, the system will designate a time-marked section of the programmed content for insertion of an action prompt 3223, and then insert an action prompt in the designated time-marked section of the programmed content 3224. The system may also include a way to designate how long the action prompt will be displayed and may include a default time. It is recognized that in some embodiments, the action prompt 3223 may associated with the time-marked section of the programmed content instead of or in addition to being inserted in the time-marked section. For example, in some embodiments, the action prompt 3223 may include an audio portion that is inserted into the programmed content and interrupts the digital audio content, a visual portion that is inserted into the programmed content by being set to be displayed in section of a user interface at a time-marked section of the digital audio content without interrupting the digital audio content, or a combination of both.

[0068] FIG. 3D is a flowchart illustrating one embodiment of a process by the system to insert an action prompt in a designated time-marked section of the programmed content for action prompts. In some embodiments, the action prompts are designated as advertising actions related to or comprising an advertisement or non-ad actions. The process of FIG. 3D involves the system designating a time-marked section of the programmed content for insertion of an action prompt 3231 and providing a catalog of template action prompts 3232. Beginning with block 3232, the system may determine whether a content
producer and/or advertiser wants to create or edit a template prompt 3233, review and select an existing template prompt 3234 that was previously created and stored in the system, or review and select a third party prompt 3235 uploaded by a third party vendor or advertiser into the system.

[0069] If the system detects that a user (for example, content producer or advertiser) wants to create or edit a template prompt 3233, the system will determine whether the action prompt was created by a content producer 3241. If the action prompt was created by a content producer, the system will determine whether the content producer wants to insert that action prompt 3242. If the content producer does not want to insert the action prompt into a programmed content, the system will give the content producer the choice to save the action prompt 3243. If the content producer wants to insert the action prompt, the system will insert the action prompt 3239 in a time-marked section of the programmed content designated by the content producer to receive that particular action prompt. If the action prompt was not created by a content producer (for example, by an advertiser), the system will give the user an option to save the action prompt 3243. If a content producer or advertiser chooses to save an action prompt, the system will store the action prompt as a template prompt for future use or editing 3244. If the content producer or advertiser chooses not to save the action prompt, the system will delete the action prompt 3245.

[0070] If a content producer wants to review and select an existing template prompt for insertion into the programmed content, the system may determine whether an existing template prompt has been selected 3234. An existing template prompt may be an action prompt that was previously created by the content producer and/or an advertiser, or an action prompt uploaded by a system administrator and/or a third-party vendor or advertiser. If the system detects that a template prompt has been selected by the content producer, the system will select the template prompt 3236 from the catalog for insertion as an action prompt into the programmed content. The system may also allow an action prompt template to be customized. For example, if the action prompt template is a website link, the system may allow a specific website address to be added. The system will determine whether the action prompt is an advertisement 3240. If the action prompt is an advertisement, the system will determine whether the content producer wants to designate that action prompt as
“random” 3237. If the action prompt is designated as random, the system will identify a digital audio content 3238 randomly or that matches the action prompt based on criteria entered into the system, and then insert the action prompt 3239 in the time-marked section of the programmed content for action prompts. For example, as discussed above, if an action prompt has been designated as “random,” the system, in one embodiment, may look at the digital audio content’s category type (for example, society & culture, personal journals, sports) and match that content with third-party advertisements related to that category type, or in another embodiment of the system’s treatment of “random” third-party advertisements, the system may look at the characteristics of the system’s users. If the action prompt is not designated as random or is not an advertisement, the system will insert the action prompt in a time-marked section of the programmed content designated by the content producer to receive that particular action prompt.

[0071] If a content producer wants to review and select a third-party action prompt for insertion into the programmed content, the system will determine whether a third-party action prompt has been selected 3235. If a third-party action prompt has been selected by the content producer, the system will select the third-party action prompt 3236 from the catalog for insertion into the programmed content. The system will determine whether the content producer wants to designate that action prompt as “random” 3237. If the content producer wants to insert the action prompt in a particular time-marked section within the programmed content, the system will insert the action prompt 3239 in the time-marked section of the programmed content designated by the content producer to receive that particular action prompt. If the content producer designates the action prompt as random, the system will identify a digital audio content 3238 randomly or that matches that action prompt based on criteria entered into the system, and then insert the action prompt 3239 in the designated time-marked section of the programmed content for action prompts. For example, as discussed above, if an action prompt has been designated as “random,” the system, in one embodiment, may look at the digital audio content’s category type (for example, society & culture, personal journals, sports) and match that content with third-party advertisements related to that category type, or in another embodiment of the system’s treatment of “random” third-party advertisements, the system may look at the characteristics of the system’s users.
B. **Consumer Application**

[0072] A consumer can access the system by creating an account in the system over the Internet and/or importing a third-party social media account into the system, and downloading the Consumer Application tool on a computing device. FIG. 4 illustrates one embodiment of the process the Consumer Application will follow to assist a user with creating an account, signing-in, and interfacing with the system to listen to shows through the Consumer Application tool.

1. **Process of Initiating New Users**

[0073] The first time a new user opens the Consumer Application, the Consumer Application may show the user a gatekeeper screen 4010, which in one embodiment can be a login screen 4011, and prompt the user to login. In one embodiment, the Consumer Application will provide the option of logging-in 4020, signing-up later 4030, or signing-in 4040. If the user selects to log-in 4020, the Consumer Application in one embodiment will give the user the option to log-in through a third-party social media application 4021 (for example, Facebook) or by creating a system account 4022.

[0074] If the user selects the option of logging-in through a third-party social media application 4021 (for example, Facebook), the Consumer Application in one embodiment will open the third-party social media application through the user’s device or cause the user’s device to load the third-party social media application through the device’s web-browser, and will display a dialog box prompting the user the option to give the Consumer Application the appropriate credentials to access the user’s third-party social media account. If the user enters the appropriate credentials into the Consumer Application for the system to access the user’s third-party social media account, the system in one embodiment will auto fill basic identifying information 4023 (for example, the consumer’s name, email address, password, gender, age) from the third-party social media account.

[0075] If the user selects the option to create a system account 4022, the Consumer Application in one embodiment will display a dialog box prompting the user the option to grant the Consumer Application access the user’s Contacts/Address Book on the user’s computing device 4024 to auto-fill the required fields 4025 to create a system account. If the user chooses not to grant the Consumer Application access to the user’s
Contacts/Address Book 4026, the Consumer Application in one embodiment will display the fields that the user needs to manually fill-in 4027 to create an account (for example, name, email address, password), and the fields that the user has the option of filling out (for example, gender, age).

[0076] After the user creates a system account or gives the Consumer Application the appropriate credentials to access the user’s third-party social media account, and signs-in, the system in one embodiment will take the user to a Quick Start Process 4050. In one embodiment, the Quick Start Process 4050 comprises guiding the user through the steps of adding a show to the user’s profile by: (a) taking the user to the marketplace 4051 (as embodied in a Marketplace Screen as shown, in one embodiment, in FIG. 6) where the user can add a show 4052; and (b) taking the user to the user’s My Shows Screen 4053 (as shown, in one embodiment, in FIG 10) to play an episode 4054 after adding a show 4052. The Consumer Application will then give the user the option to play the added show now 4055 or to skip, and keep adding shows 4056.

[0077] If the user chooses to skip, and keep adding shows 4056, the Consumer Application in one embodiment will take the user back to the Marketplace Screen 4060, and allow the user to navigate freely within the Consumer Application.

[0078] If the user chooses to play the added show now 4055, the Consumer Application in one embodiment will take the user to the Now Playing Screen 4070 (as shown, in one embodiment, in FIG. 9) where the user can listen to an episode. In one embodiment, the Consumer Application will display prompts in a ticker-tape manner on the Show’s Calling Card 4071 while the episode is playing. For instance, if the user is signed-in through a third-party social media application, the Consumer Application will display a prompt 9050 giving the user the option to “like” the show’s social media page 4074 (for example, Facebook). If the user is not signed-in through a third-party social media application 4075, the Consumer Application in one embodiment has an option that allows the user to integrate the user’s third-party social media account with the Consumer Application 4073 (for example, by having the user give the Consumer Application the appropriate access credentials to the user’s third-party social media account).
2. Building a User’s My Shows Profile

[0079] If a user has an existing system account and the Consumer Application directs the user to the gatekeeper/login page, the Consumer Application in one embodiment will give the user the option to sign-in and go directly to the My Shows Screen. FIG. 5 is a chart illustrating one embodiment of a returning user’s progress through the Consumer Application and the choices available to the user at each screen.

[0080] When a user returns to the Consumer Application, and signs in, the Consumer Application directs the user to the user’s My Shows 5010 as embodied in a My Shows Screen (as shown, in one embodiment, in FIG. 10). If the Consumer Application was playing an episode the last time the user logged out from the system, when the user logs back into the system, the Consumer Application in one embodiment will display the unfinished episode 5011 on the My Shows Screen and give the user the option of listening to the rest of the episode 5012. If the user chooses to listen to the rest of the last played episode by selecting Play Now 5060, the Consumer Application in one embodiment will go to Now Playing as embodied in a Now Playing Screen (as shown, in one embodiment, in FIG. 9) for that episode. If the user does not want to listen to the rest of the last played episode, the Consumer Application in one embodiment will give the user the option to navigate to the Marketplace 5050, Settings 5030, or individual show pages (for example, Show Library 5020 and Show Card 5040).

[0081] My Shows 5010 in one embodiment includes one or more organizational approaches for a user to arrange and view the shows that the user has added to My Shows from the Marketplace. From My Shows 5010, the Consumer Application provides a user, in one embodiment, three different organizational approaches to select from through the user’s Show Library 5020, including: a list of All Shows 5021 in My Shows; a list of Favorites 5022 (for example, episodes the user has marked with a “star” using the star icon selection process 9070 in FIG 9); and a queue of un-played episodes 5023. In one embodiment, the user can select between these different organizational approaches by swiping the user’s fingers to the left or right of the screen while in the My Shows Screen (see, for example, FIG. 10).
[0082] From My Shows 5010 or the Show Library 5020, the Consumer Application provides the user, in one embodiment, the option of accessing information about a show from the user’s My Shows or playing that show. If the user chooses to access information about the show, the Consumer Application in one embodiment will take the user to the shows’ Show Card 5040 as embodied in a Show Card Screen (and as shown, in one embodiment, in FIG. 7). If the user chooses to play the show by selecting Play Now 5060A, the Consumer Application in one embodiment will take the user to Now Playing 5070 as embodied in a Now Playing Screen (and as shown, in one embodiment, in FIG. 9).

[0083] To access an individual Show Card 5040 from My Shows 5010 or the Show Library 5020, the Consumer Application provides the user, in one embodiment, an icon on the My Shows Screen that represents the show. If the user selects the show’s icon, the system may take the user to the show’s Show Card as embodied in a Show Card Screen (and as shown, in one embodiment, in FIG 7). In one embodiment, the Show Card will give the user the option to obtain information about a show through the Info Button 5041, and play an episode or obtain information about an episode through the Most Recent Episode 5044 or the Episode Archive 5046.

[0084] If the user selects the show’s Info Button 5041, the Consumer Application may take the user to the show’s Info Page 5042 (as shown, in one embodiment, in FIG 8), where the user can peruse more information about the show. If the user selects the Most Recent Episode 5044, the Consumer Application may take the user to Episode Info 5045A (as shown, in one embodiment, in FIG. 8). From Episode Info 5045A, the Consumer Application provides the user an option of returning to the previous page, playing the episode, or marking the episode as played. If the user selects Play Now 5060B from Episode Info 5045A, the Consumer Application may take the user to Now Playing 5070 to listen to the episode. If the user selects Episode Archive 5046 from the Show Card 5040, the Consumer Application may take user to the show’s Episode List 5047. From the Episode List 5047, the user can select any episode on that list and the Consumer Application may provide the user with information about that episode through Episode Info 5045B (as shown, in one embodiment, in FIG. 8). From the Episode Info 5045B, the user can play the episode by
selecting Play Now 5060C. If the user selects Play Now 5060C from Episode Info 5045B, the Consumer Application may take the user to Now Playing 5070 to listen to the episode.

[0085] From My Shows 5010, if the user chooses to navigate to the Marketplace 5050, Consumer Application may take the user to the Marketplace screen (as shown, in one embodiment, in FIG. 6). Within the Marketplace 5050, the Consumer Application may give the user several options; as represented in FIG. 5 as one embodiment, those options include: Featured 5051, Categories 5052, and Search 5053.

[0086] The Featured 5051 option, in one embodiment, includes several featured shows from which a user can select. If the user chooses a show from the Featured 5051 option, the Consumer Application may take the user directly to the Show Card 5040A for that show.

[0087] The Categories 5052 option, in one embodiment, includes a number of show categories. If the user chooses the Categories 5052 option, the Consumer Application may display All Categories 5054 on the user’s device and a List of Shows 5056 by category. The user can then select individual shows from that List of Shows 5056, and the Consumer Application may take the user to the Show Card 5040A for that show.

[0088] The Search 5053 option, in one embodiment, includes a search engine that allows a user to enter search terms to look for a show. If the user selects the Search 5053 option, the Consumer Application may take the user to a screen that has a Search Input 5055 feature that permits the user to enter a text inquiry. If the user enters a text inquiry into the Search Input 5055 feature, the Consumer Application may take the user to a List of Shows 5057 that is responsive to that text inquiry. The user can then select individual shows from that List of Shows 5057, and the Consumer Application may take the user to the Show Card 5040A for that show.

[0089] From Show Card 5040A, the Consumer Application, in one embodiment, provides the user with an Info Button 5041A option, a Most Recent Episode 5044A option, and an Episode Archive 5046A option. Each of these options may allow a user to add a show to their My Shows 5010 profile; this can be useful if the user is viewing a show that is not among the shows in the user’s My Shows profile. The Consumer Application, in one embodiment, also provides a Related Shows 5059 option through Show Card 5040A.
[0090] The Info Button 5041A option, in one embodiment, is a section of the Show Card that includes information about a show and a way for a user to add that show to the user’s My Shows 5010 profile. The Consumer Application may have an Add to My Shows 5058A feature in the Info Button 5041A option. If the user utilizes the Add to My Shows 5058A feature while in the Info Button 5041A option, the show displayed on the Info Button 5041A will, in one embodiment, be added by the Consumer Application to the user’s My Shows 5010 profile.

[0091] The Most Recent Episode 5044A option and the Episode Archive 5046A option, in one embodiment, are sections of the Show Card 5040A that enable the Consumer Application to add a desired show to a user’s My Shows 5010 profile when the user chooses to play and to add the most recent episode or any archived episode from a show that is not in the user’s My Shows Screen. For example, a user may, through the Most Recent Episode 5044A option, listen to a show by selecting Play Now 5060D and add the show by selecting Adds to My Shows 5058B. In another example, a user may use the Episode Archive 5046A option to view a show’s Episode List 5047A, obtain Details on an episode from that list, and from the Episode List play a show by selecting Play Now 5060E and/or add the selected show by selecting Adds to My Shows 5058C.

[0092] The Related Shows 5059 option, in one embodiment, is content on the Show Card 5040A where the Consumer Application can display icons that represent shows in the Marketplace 5050 that are similar to the show displayed on the Show Card. If a user selects any of these icons, the Consumer Application may take the user to the Show Card for the show represented by that icon.

[0093] When a user selects the Play Now 5060, 5060A, 5060B, 5060C, 5060D, 5060E option to listen to a show or episode, the Consumer Application may take the user to the Now Playing Screen (as shown, in one embodiment, in FIG. 9), and display content about that selected show or episode on the user’s device. In one embodiment, the Consumer Application will display Episode Title 5071, Ticker Tape 5072, and Playback Controls 5073. The Ticker Tape 5072 may display the show’s Calling Card 5073 and other action prompts programmed by the Consumer Application or the show’s producer. In one embodiment, the show’s Calling Card is an image or logo of the show. The Ticker Tape 5072 may also display
action prompts (for example, Facebook Like 5074). From Facebook Like 5074, the Consumer Application may enable the user to take Action 5075. If a user selects the Facebook Like action prompt, the Consumer Application in one embodiment will cause the user’s device to load the Facebook application and add the show’s Facebook Page to the consumer’s list of Liked Pages, or will direct the web browser application to the same effect. If the consumer has not previously permitted the Consumer Application to access the user’s Facebook account, yet the user selects the Facebook Like action prompt, the system in one embodiment will cause the Facebook application, or the web browser application, to load the Facebook application, or load Facebook through the device’s web-browser, and will display a dialog box prompting the user the option to give the Consumer Application the appropriate credentials to access the user’s third-party social media account. If the user enters the appropriate credentials into the Consumer Application for the system to access the user’s third-party social media account, the system in one embodiment will add the show’s Facebook Page to the consumer’s list of Liked Pages, or will direct the web browser application to the same effect.

3. Marketplace Interface

[0094] FIG. 6 is an example of an interface 6000 on a mobile device for the Marketplace in the Consumer Application. The interface 6000 may include a search option icon 6010. If a user taps on the search option icon 6010, the Consumer Application in one embodiment will enable a user to search the Marketplace for particular shows of interest. The interface 6000 also includes, in one embodiment, a featured show banner 6020 that is used to promote particular shows. The featured shows, in one embodiment, are either selected manually or through some feature of the system, such as an algorithm that determines shows that may be of interest to the user. In one embodiment, the system controls what shows are featured in the show banner 6020. In another embodiment, administrators of the system through the Admin Package tool control what shows are featured in the show banner 6020. If a user taps on the banner 6020 to select a particular show, the Consumer Application may take the user to the Show Card for that show. In one embodiment, the interface 6000 includes a section that groups shows by category. The categories may include “Noteworthy” and “Popular” as shown in FIG. 6. Each category may have a show category image scroll 6030A,
6030B; users may scroll through Show Card Images in each of the groupings by swiping left or right over a grouping using the show category image scroll 6030A, 6030B. If a user taps on a particular Show Card Image in a grouping, the Consumer Application may take the user to that show’s Show Card, such as the one shown, in one embodiment, in FIG. 7. The interface 6000 may have a main menu 6040 that, in one embodiment, will be on the bottom of the interface. The main menu 6040 can be used by a user to toggle between different interfaces, such as for example the My Shows interface and the Marketplace interface, by tapping on or selecting the appropriate icon for that interface. The interface 6000 may have a marketplace sub-menu icon 6050 that, when selected by the user, allows a user to see a list of show categories through which a user can browse. When the user taps or selects the icon 6050, the list, in one embodiment, will slide to the left of icon 6050.

4. Show Card Interface

[0095] FIG. 7 is an example of an interface 7000 on a mobile device for a Show Card on the Consumer Application. The interface 7000, in one embodiment, will have a back button 7010 that, when selected by the user, will return the user to the Marketplace interface 6000. Interface 7000, in one embodiment, will have a show information icon 7020 for a show’s information page that, when selected by the user, will take the user to a page that lists a short description of the show and provide the user with additional information about the show (for example, the show’s website, the types of material broadcast on the show, common topics, the categories it fits, user reviews, names of the hosts). The interface 7000, in one embodiment, will have a button 7030 that will allow a user to add a show to the user’s personal directory of shows on their My Shows page. The interface 7000, in one embodiment, will have a section 7040 that will display the most recent episode distributed by the show. The section 7040, in one embodiment, has a Play Now 7041 strip/slider that, when selected by the user, will cause the Consumer Application to play the most recent episode and take the user to a screen (for example, the screen 9000 shown in FIG. 9) where the user can interact with the show while listening to the episode through the Consumer Application. The interface 7000, in one embodiment, has a button 7050 that, when selected by the user, allows a user to view a list of all episodes published by the show. When the user selects an episode from that list, the Consumer Application may re-direct the user to an information page
interface (as shown, in one embodiment, in FIG. 8) that will display information about the show. The interface 7000, in one embodiment, has a scrollable banner 7060 that features images of related shows. If a user selects a show by tapping on an image from banner 7060, the Consumer Application may take or re-direct the user to that show’s Show Card.

5. **Show or Episode Information Page Interface**

[0096] FIG. 8 is an example of an interface 8000 on a mobile device for a show or episode information page on the Consumer Application. The interface 8000, in one embodiment, has a back button 8010 that, when activated by a user, will return the user to the previous page. For example, if the user arrived at the information page from the show card interface 7000, then the back button 8010 would return the user to the show card interface 7000. The interface 8000, in one embodiment, has a “Play Now” slider 8020 that, when activated by a user, prompts the Consumer Application to play the episode featured on the interface and to transition the interface to a screen (as shown, in one embodiment, in FIG. 9) that allows users to play and listen to the episode. In one embodiment, the user can activate the “Play Now” slider 8020 by moving the arrow 8021 from the left to the right of the interface 8000. In one embodiment, the interface 8000 has an area for textual description 8030 that includes information about or a description on the show or episode featured on the information page. In one embodiment, the interface 8000 has a “Mark as Played” toggle button 8040. When a user selects the toggle button 8040, the Consumer Application may mark the episode as already played on the My Shows screen.

6. **Screen to Play and Listen to Episodes**

[0097] FIG. 9 is an example of a screen 9000 on a mobile device that allows users to interface with the Consumer Application to play and listen to an episode. The screen 9000, in one embodiment, has a back button 9010 that, when selected by a user, returns the user to the previous page (or last page viewed by the user). In one embodiment, the Consumer Application will continue to play an episode if the user navigates away from the screen 9000 using the back button 9010. If the episode is playing after the user navigates away from the screen 9000, the user can pause the episode by selecting the pause button. The Consumer Application, in one embodiment, will also pause the episode if a phone call occurs or if there
is some other priority interruption (as determined by the Consumer Application or the mobile device). The screen 9000, in one embodiment, has a menu option 9020 represented by three dots and located in the upper right corner of the screen. If the user selects the menu option 9020, a small menu may pop open giving the user one or more options including skipping the episode or sharing the episode through email or social networks. The screen 9000, in one embodiment, has an episode banner 9030, which may display information about the episode such as the title and date the episode was published. The screen 9000, in one embodiment, has a scrollable marquee 9040 in which certain information (for example, take action prompts) appear as programmed by producers through Producer Live or by the Consumer Application. The scrollable marquee 9040 may display take action prompts (like the prompts shown in FIG. 5), comments from people on social networks, advertisements, or other information. The screen 9000, in one embodiment, will include a take action prompt 9050 as programmed by the producer of the show. The take action prompt 9050 may drop down from beneath the episode banner 9030, at a time predetermined by the show producer, and push the previous action prompts down. The screen 9000, in one embodiment, has a progress bar 9060 that illustrates the user’s position in the episode (such as, for example, the time elapsed and remaining in the episode). The episode bar 9060 may have an indicator 9061 that separates the right from the left of the episode bar, and a timer 9062 on the right end of the episode bar and a timer 9063 on the left end of the episode bar. The indicator 9061 may move from the left of the screen 9000 to the right of the screen as the episode progresses, with the amount of time elapsed shown on timer 9063 and the amount of time remaining shown on timer 9062. The screen 9000 may have a button 9070 that enables a user to add the show appearing on the screen to the user’s My Shows list. The user can toggle the subscription by selecting the button 9070 repeatedly. The screen 9000 may have playback control icons 9080 that enable a user to rewind, play/pause, and fast-forward an episode. The screen 9000 may have a volume control toggle 9090 that enables a user to change the audio volume of the episode displayed on the screen. In one embodiment, when the user selects the volume control toggle 9090, the Consumer Application causes the entire playback control toggle 9080 to fade away and be replaced by a volume meter and back button (not shown in FIG. 9).
7. **My Shows Page**

[0098] FIG. 10 is an example of a page 10000 on a mobile device for a user’s My Shows profile on the Consumer Application. The My Shows page 10000, in one embodiment, has a quick play button 10010. A user selecting the quick play button 10010 will, in one embodiment, cause the Consumer Application to replace the My Shows page 10000 with screen 9000 and play the oldest un-played episode in the user’s My Shows list. The My Shows page 10000 may have a settings icon 10020. A user selecting the settings icon 10020 will, in one embodiment, cause the Consumer Application to replace the My Shows page 10000 with the Signal settings page 11000 (as shown, in one embodiment, in FIG. 11). The My Shows page 10000 may have an icon 10030 that represents the show that the user has added to the user’s My Shows list. A user selecting the icon 10030 will, in one embodiment, cause the Consumer Application to replace the My Shows page 10000 with the Show Card page (as shown, in one embodiment, in FIG. 7). The My Shows page 10000 may have an icon 10040 that displays the number of episodes that have been published by the show and have not been played by the user. The My Shows page 10000 may have a button 10050 that, when selected by the user, causes the Consumer Application to replace the My Shows page 10000 with the show Marketplace page (as shown, in embodiment, in FIG. 6). The My Shows page 10000 may have a main navigation bar 10060 that has buttons 10061, 10062 to enable a user to toggle between the My Shows page and the Marketplace page.

8. **Settings Page**

[0099] FIG. 11 is an example of a page 11000 on a mobile device for a user’s Settings on the Consumer Application. The Settings page 11000 may have a back button 11010 that, when selected by a user, enables a user to cause the Consumer Application to return to the My Shows page 10000 (as shown for example in FIG. 10). The Setting page 11000 may have a button 11020 that, when selected by the user, enables a user to cause the Consumer Application to link to a page where the user can manage his/her login information for third-party sites and services such as Facebook, Twitter, Amazon, etc. The Settings page 11000 may have a toggle switch 11030 that enables a user to control or select whether the Consumer Application will download data over data networks or limit such downloads to wireless networks. The Settings page 11000 may have a toggle switch 11050 that enables a
user to control the quick play function (shown, in one embodiment, in FIG. 10). The Settings page 11000 may have a setting 11060 that allows a user to set the maximum number of unplayed episodes that the Consumer Application will have downloaded from the user’s My Shows page at a given time.

C. Data Sharing between Produce Live and Consumer Application

[0100] FIG. 12 is a diagram displaying the data sharing relationships between the Consumer Application and Producer Live, and users of the Consumer Application and Producer Live.

[0101] The Consumer Application is configured to gather data about a user’s actions and behavior while the user listens to episodes and interacts with the information and action prompts in each episode’s ticker tape. Producer Live is configured to allow an authorized user to access information collected by the Consumer Application and make that information available to the authorized user’s analysis. The information may be de-identified such that it does not reveal any personally identifiable information about any particular user of the system and may be based upon: user profile information; a list of episodes a user downloads; a list of episodes a user listens to; how much of an episode a user listens to; the action prompts that cause a user to take action; the date and time a user listens to an episode.

[0102] If a consumer using the Consumer Application grants a third-party access to information gathered by the Consumer Application, the Consumer Application will allow that third-party to access information about that consumer. In one embodiment, the user information shared with an authorized third-party will include: the user’s login credentials for a web-service (for example, Facebook, Amazon, or PayPal); and information necessary for completion of an action prompt in the Consumer Application (for example, directing to a webpage or loading another on-device application to consummate a sale or complete a task).

[0103] The Consumer Application may download and receive data from Producer Live. In one embodiment, the Consumer Application receives digital audio files, show profile information, and ticker tape action prompts, and activity from third-party applications associated with particular episodes from Producer Live, as programmed by the show producer or shared by Consumer Application users. In one embodiment, the system allows Consumer
Application users to share social media messages (such as, for example, activity from third-party applications associated with particular episodes) with the Consumer Application.

[0104] Producer Live may receive data from the Consumer Application. The Consumer Application, in one embodiment, sends Producer Live crash reports and user activity data. Producer Live also may download and receives data from third-party applications. In one embodiment, Producer Live receives Facebook comments and Tweets (or messages from Twitter) associated with particular episodes from either the Consumer Application or the third-party application.

[0105] Show producers can use the Producer Live to interface to upload, edit, and publish audio data for the episodes, show profile information, commercial/advertising audio and images, cues to the Consumer Application to insert advertisements, and custom cues/prompts for consumers tied to particular places in the episode. Some of these prompts and/or advertisements may use information from third-party sites or application, such as URLs. Show producers are able to use Producer Live to access data and statistics related to consumer activity on their show. In some embodiments, Producer Live may include action prompt templates that include actions that relate to, interface with, and/or share data with a third party. For example, one action prompt template may be to sign up for an email list via MailChimp and another may be to sign up for an email list via Constant Content. As another example, the action prompt template may be configured to sign up for an email list and then when customized, the producer can select MailChimp, Constant Content, or another third party email list provider.

[0106] Administrative users can use Producer Live to access listener activity data, crash data, and third-party information. Administrative users also use Producer Live to monitor and manage application-wide advertising, illicit user and show producer activity, and ensure quality control of the content distributed through the application.

D. Computing System

[0107] In some embodiments, the systems, tools and methods of using same to enable interactivity and data collection is performed by a computing system 13000. FIG 13 is a block diagram showing an embodiment in which the computing system 13000 is in communication with a network 13002 and various external computing systems 13004, such
as a content producer system 13005, a consumer system 13006, an advertiser system 13007, and a vendor system 13008, which are also in communication with the network 13002. The computing system 13000 may be used to implement systems and methods described herein. While the external system 13004 are shown as grouped it is recognized that each of the systems may be external from each other and/or remotely located.

[0108] In some embodiments, the computing system 13000 includes one or more computing devices, for example, a server, a laptop computer, a mobile device (for example, smart phone, personal digital assistant), a kiosk, or a media player, for example. In one embodiment, the computing device 13000 includes one or more central processing units ("CPUs") 13105, which may each include a conventional or proprietary microprocessor. The computing device 13000 further includes one or more memory 13130, such as random access memory ("RAM") for temporary storage of information, one or more read only memory ("ROM") for permanent storage of information, and one or more mass storage device 13120, such as a hard drive, diskette, solid state drive, or optical media storage device. In one embodiment, the modules of the computing device 13000 are connected to the computer using a standard based bus system. In different embodiments, the standard based bus system could be implemented in Peripheral Component Interconnect (PCI), Microchannel, Small Computer computing system Interface (SCSI), Industrial Standard Architecture (ISA) and Extended ISA (EISA) architectures, for example. In addition, the functionality provided for in the components and modules of computing device 13000 may be combined into fewer components and modules or further separated into additional components and modules.

[0109] The computing device 13000 may be controlled and coordinated by operating system software, for example, iOS, but could also be controlled and coordinated by another operating system software including Windows XP, Windows Vista, Windows 7, Windows 8, Windows Server, Embedded Windows, Unix, Linux, Ubuntu Linux, SunOS, Solaris, Blackberry OS, Android, or other compatible operating systems. In Macintosh systems, the operating system may be any available operating system, such as MAC OS X. In other embodiments, the computing device 13000 may be controlled by a proprietary operating system. Conventional operating systems control and schedule computer processes
for execution, perform memory management, provide file system, networking, I/O services, and provide a user interface, such as a graphical user interface (GUI), among other things.

[0110] The exemplary computing device 13000 may include one or more I/O interfaces and devices 13110, for example, a touchpad or touchscreen, but could also include a keyboard, mouse, and printer. In one embodiment, the I/O interfaces and devices 13110 include one or more display devices (such as a touchscreen or monitor) that allow visual presentation of data to a user. More particularly, a display device may provide for the presentation of GUIs, application software data, and multimedia presentations, for example. The computing system 13000 may also include one or more multimedia devices 13140, such as cameras, speakers, video cards, graphics accelerators, and microphones, for example.

[0111] The I/O interfaces and devices 13110, in one embodiment of the computing system and application tools, may provide a communication interface to various external devices. In one embodiment, the computing device 13000 is electronically coupled to a network 13002, which comprises one or more of a LAN, WAN, and/or the Internet, for example, via a wired, wireless, or combination of wired and wireless, communication link 13115. The network 13002 can communicate with various computing devices and/or other electronic devices via wired or wireless communication links.

[0112] In some embodiments, the data and content processed by an application tool (for example, the Producer Live tool, the Consumer Application tool, API, the Admin Package tool) according to the methods and systems described herein, may be provided to the computing system 13000 over the network 13002 from one or more data sources 13010. The data sources may include one or more internal and/or external databases, data sources, and physical data stores. The data sources 13010, external computing systems 13004 and the programming and distribution module 13190 may include databases for storing data to be processed with one of the application tools (for example, the Producer Live tool, the Consumer Application tool, API, the Admin Package tool) according to the systems and methods described above. The data sources 13010, external computing systems 13004 and the programming and distribution module 13190 may also include databases for storing data that has been processed with one of the application tools (for example, the Producer Live tool, the Consumer Application tool, API, the Admin Package tool) according to the systems
and methods described above. For example, with reference to the programming and
distribution module 13190 as shown in one embodiment in FIG 14, the Content Database
14050 may, in some embodiments, store data uploaded by a user to be hosted locally by the
computing system 13000, and data processed and/or generated by the Producer Live tool. The
Rules Database 14060 may, in some embodiments, store data (for example, user instructions,
preferences, profile) that establish parameters for the generation of data by the Producer Live
tool and/or for the distribution of data by the Consumer Application tool or API. In some
embodiments, one or more of the databases or data sources may be implemented using a
relational database, such as Sybase, Oracle, CodeBase, MySQL, SQLite, and Microsoft®
SQL Server, and other types of databases such as, for example, a flat file database, an entity-
relationship database, and object-oriented database, NoSQL database, and/or a record-based
database.

[0113] The computing system, in one embodiment, includes a programming and
distribution module 13190 that may be stored in the mass storage device 13120 as executable
software codes that are executed by the CPU 13105. The programming and distribution
module 13190 may have a Producer Module 14010, a Consumer Module 14020, Admin
Module 14030, a Third-Party Interface Module 14040, a Content Database 14050, and a
Rules Database 14060. These modules may include by way of example, components, such as
software components, object-oriented software components, subroutines, segments of
program code, drivers, firmware, microcode, circuitry, data, databases, data structures, tables,
arrays, and variables. These modules, in some embodiments, function together to operate the
Producer Live tool, the Consumer Application tool or API, and/or the Admin Package tool.
These modules are also configured to perform the processes disclosed herein including, in
some embodiments, the processes described with respect to the flowcharts shown in FIGS.
3A-3D, 4, 5, and 12.

[0114] In general, the word “module,” as used herein, refers to logic embodied in
hardware or firmware, or to a collection of software instructions, possibly having entry and
exit points, written in a programming language, such as, for example, Python, Java, Lua, C
and/or C++. A software module may be compiled and linked into an executable program,
installed in a dynamic link library, or may be written in an interpreted programming language.
such as, for example, BASIC, Perl, or Python. It will be appreciated that software modules may be callable from other modules or from themselves, and/or may be invoked in response to detected events or interrupts. Software modules configured for execution on computing devices may be provided on a computer readable medium, such as a compact disc, digital video disc, flash drive, or any other tangible medium. Such software code may be stored, partially or fully, on a memory device of the executing computing device, such as the computing system 13000, for execution by the computing device. Software instructions may be embedded in firmware, such as an EPROM. It will be further appreciated that hardware modules may be comprised of connected logic units, such as gates and flip-flops, and/or may be comprised of programmable units, such as programmable gate arrays or processors. The block diagrams disclosed herein may be implemented as modules. The modules described herein may be implemented as software modules, but may be represented in hardware or firmware. Generally, the modules described herein refer to logical modules that may be combined with other modules or divided into sub-modules despite their physical organization or storage.

E. Additional Embodiments

[0115] Each of the processes, methods, and algorithms described in the preceding sections may be embodied in, and fully or partially automated by, code modules executed by one or more computer systems or computer processors comprising computer hardware. The code modules may be stored on any type of non-transitory computer-readable medium or computer storage device, such as hard drives, solid state memory, optical disc, and/or the like. The systems and modules may also be transmitted as generated data signals (for example, as part of a carrier wave or other analog or digital propagated signal) on a variety of computer-readable transmission mediums, including wireless-based and wired/cable-based mediums, and may take a variety of forms (for example, as part of a single or multiplexed analog signal, or as multiple discrete digital packets or frames). The processes and algorithms may be implemented partially or wholly in application-specific circuitry. The results of the disclosed processes and process steps may be stored, persistently or otherwise, in any type of non-transitory computer storage such as, for example, volatile or non-volatile storage.
[0116] The various features and processes described above may be used independently of one another, or may be combined in various ways. All possible combinations and subcombinations are intended to fall within the scope of this disclosure. In addition, certain method or process blocks may be omitted in some implementations. The methods and processes described herein are also not limited to any particular sequence, and the blocks or states relating thereto can be performed in other sequences that are appropriate. For example, described blocks or states may be performed in an order other than that specifically disclosed, or multiple blocks or states may be combined in a single block or state. The example blocks or states may be performed in serial, in parallel, or in some other manner. Blocks or states may be added to or removed from the disclosed example embodiments. The example systems and components described herein may be configured differently than described. For example, elements may be added to, removed from, or rearranged compared to the disclosed example embodiments.

[0117] Conditional language, such as, among others, “can,” “could,” “might,” or “may,” unless specifically stated otherwise, or otherwise understood within the context as used, is generally intended to convey that certain embodiments include, while other embodiments do not include, certain features, elements and/or steps. Thus, such conditional language is not generally intended to imply that features, elements and/or steps are in any way required for one or more embodiments or that one or more embodiments necessarily include logic for deciding, with or without user input or prompting, whether these features, elements and/or steps are included or are to be performed in any particular embodiment. The term “including” means “included but not limited to.” The term “or” means “and/or.”

[0118] Any process descriptions, elements, or blocks in the flow or block diagrams described herein and/or depicted in the attached figures should be understood as potentially representing modules, segments, or portions of code which include one or more executable instructions for implementing specific logical functions or steps in the process. Alternate implementations are included within the scope of the embodiments described herein in which elements or functions may be deleted, executed out of order from that shown or discussed, including substantially concurrently or in reverse order, depending on the functionality involved, as would be understood by those skilled in the art.
[0119] All of the methods and processes described above may be embodied in, and partially or fully automated via, software code modules executed by one or more computers. For example, the methods described herein may be performed by the computing system and/or any other suitable computing device. The methods may be executed on the computing devices in response to execution of software instructions or other executable code read from a tangible computer readable medium. A tangible computer readable medium is a data storage device that can store data that is readable by a computer system. Examples of computer readable mediums include read-only memory, random-access memory, other volatile or non-volatile memory devices, CD-ROMs, magnetic tape, flash drives, and optical data storage devices.

[0120] It should be emphasized that many variations and modifications may be made to the above-described embodiments, the elements of which are to be understood as being among other acceptable examples. All such modifications and variations are intended to be included herein within the scope of this disclosure. The foregoing description details certain embodiments. It will be appreciated, however, that no matter how detailed the foregoing appears in text, the systems and methods can be practiced in many ways. For example, a feature of one embodiment may be used with a feature in a different embodiment. As is also stated above, it should be noted that the use of particular terminology when describing certain features or aspects of the systems and methods should not be taken to imply that the terminology is being re-defined herein to be restricted to including any specific characteristics of the features or aspects of the systems and methods with which that terminology is associated.
WHAT IS CLAIMED IS:

1. A computerized method comprising:
   accessing computer-executable instructions from at least one computer-readable storage medium; and
   executing the computer-executable instructions, thereby causing computer hardware comprising at least one computer processor to perform operations comprising:
   receiving, by a server computer through a communication link, data associated with an electronic audio data package;
   receiving, by the server computer, action prompt template data associated with a plurality of action prompt templates, each of the plurality of action prompt templates indicating interactive activity for a user to interact with electronic audio data packages;
   rendering, by the server computer, a graphical user interface for displaying in a display device in communication with the server computer, the graphical user interface including an interface that allows a producer to associate a portion of the electronic audio data package with an action prompt instance of one of the plurality of action prompt templates and to customize the action prompt instance of the plurality of action prompt templates to include an interaction related to the portion of the electronic audio data package; and
   generating an updated electronic audio data package that includes a data structure storing information about the customized action prompt instance.

2. The computerized method of Claim 1, wherein the electronic audio data package comprises audio podcast data.

3. The computerized method of Claim 1, wherein the data structure further stores information about a point in time of the electronic audio data package at which the customized action prompt instance is to be displayed by a consumer-facing graphical user interface.
4. The computerized method of Claim 1, wherein the interactivity included in the plurality of action prompt templates includes two or more of: purchasing a product, reviewing a product, answering a poll, placing a phone call, sending a text message, sending an email, linking to online content, linking to a webpage, sending a message on another social media network, signing a petition, donating to a charity, signing up for an email newsletter, sharing content on a social media site, liking a social media page, following a social media page, reading data on a social media site, commenting on a piece of social media data, displaying an image, displaying a video, displaying digital media, or setting a reminder.

5. The computerized method of Claim 1 wherein the graphical user interface includes a visual representation of audio data stored in the electronic audio data package.

6. The computerized method of Claim 5, wherein the visual representation of the audio data stored in the electronic audio data package is a waveform.

7. The computerized method of Claim 1, wherein the graphical user interface further includes an action prompt creation tool to allow a producer to create a new action prompt instance or a new action prompt template.

8. A non-transitory storage medium having computer-executable instructions stored thereon, the computer-executable instructions readable by a computing system comprising one or more computing devices, wherein the computer-executable instructions are executable on the computing system in order to cause the computing system to perform operations comprising:

   receiving, by a server computer through a communication link, data associated with an electronic audio data package;

   receiving, by the server computer, action prompt template data associated with a plurality of action prompt templates, each of the plurality of action prompt templates indicating interactive activity for a user to interact with electronic audio data packages;
rendering, by the server computer, a graphical user interface for displaying in a display device in communication with the server computer, the graphical user interface including an interface that allows a producer to associate a portion of the electronic audio data package with an action prompt instance of one of the plurality of action prompt templates and to customize the action prompt instance of the plurality of action prompt templates to include an interaction related to the portion of the electronic audio data package; and

generating an updated electronic audio data package that includes a data structure storing information about the customized action prompt instance.

9. The non-transitory storage medium of Claim 8, wherein the electronic audio data package comprises audio podcast data.

10. The non-transitory storage medium of Claim 8, wherein the data structure further stores information about a point in time of the electronic audio data package at which the customized action prompt instance is to be displayed by a consumer-facing graphical user interface.

11. The non-transitory storage medium of Claim 8, wherein the interactivity included in the plurality of action prompt templates includes two or more of: purchasing a product, reviewing a product, answering a poll, placing a phone call, sending a text message, sending an email, linking to online content, linking to a webpage, sending a message on another social media network, signing a petition, donating to a charity, signing up for an email newsletter, sharing content on a social media site, liking a social media page, following a social media page, reading data on a social media site, commenting on a piece of social media data, displaying an image, displaying a video, display digital media, or setting a reminder.

12. The non-transitory storage medium of Claim 8, wherein the graphical user interface includes a visual representation of audio data stored in the electronic audio data package.
13. The non-transitory storage medium of Claim 12, wherein the visual representation of the audio data stored in the electronic audio data package is a waveform.

14. The non-transitory storage medium of Claim 8, wherein the graphical user interface further includes an action prompt creation tool to allow a producer to create a new action prompt instance or a new action prompt template.

15. A computer system for editing electronic audio data packages, the computer system comprising:

   a computer processor and non-transitory computer-readable media combined with the computer processor configured to provide a program that includes a set of instructions stored on a first server, the set of instructions being executable by the computer processor, and further configured to execute a audio data package editing module of the program;

   the audio data package editing module of the program configured to:

   receive data associated with an electronic audio data package;

   receive action prompt template data associated with a plurality of action prompt templates, each of the plurality of action prompt templates indicating interactive activity for a user to interact with electronic audio data packages;

   render a graphical user interface for displaying in a display device in communication with the server computer, the graphical user interface including an interface that allows a producer to associate a portion of the electronic audio data package with an action prompt instance of one of the plurality of action prompt templates and to customize the action prompt instance of the plurality of action prompt templates to include an interaction related to the portion of the electronic audio data package; and

   generate an updated electronic audio data package that includes a data structure storing information about the customized action prompt instance.

16. The computer system of Claim 15, wherein the electronic audio data package comprises audio podcast data.
17. The computer system of Claim 15, wherein the data structure further stores information about a point in time of the electronic audio data package at which the customized action prompt instance is to be displayed by a consumer-facing graphical user interface.

18. The computer system of Claim 15, wherein the interactivity included in the plurality of action prompt templates includes two or more of: purchasing a product, reviewing a product, answering a poll, placing a phone call, sending a text message, sending an email, linking to online content, linking to a webpage, sending a message on another social media network, signing a petition, donating to a charity, signing up for an email newsletter, sharing content on a social media site, liking a social media page, following a social media page, reading data on a social media site, commenting on a piece of social media data, displaying an image, displaying a video, displaying digital media, or setting a reminder.

19. The computer system of Claim 15, wherein the graphical user interface includes a visual representation of audio data stored in the electronic audio data package.

20. The computer system of Claim 19, wherein the visual representation of the audio data stored in the electronic audio data package is a waveform.

21. The computer system of Claim 15, wherein the graphical user interface further includes an action prompt creation tool to allow a producer to create a new action prompt instance or a new action prompt template.

22. A computing system for enabling interactivity and data collection for podcasters and radio broadcasters, the computing system comprising:

   at least two processors, a first processor and a second processor, in data communication with a network, each processor in electronic communication with a computer screen;
a first input interface between a first user and the first processor, the input interface enabling the first user to select a plurality of items to be displayed on the computer screen of the second processor, and to sequence the items into a code;

a second input interface between a second user and the second processor, the second interface enabling the second user to select an image displayed on the computer screen of the second processor;

a program executed by the second processor and configured to:

receive the code having an arrangement of items sequenced by the first processor, wherein at least one of the items is an action prompt, wherein at least one of the items is an audio file, and wherein each of the items is arranged to be displayed on the computer screen of the second processor in a sequence selected by the first user;

display the action prompt on the computer screen of the second processor, the action prompt having one or more images, wherein at least one of the images displays information about a product and gives an option to the second user to input data relating to the product through the second input interface to the second processor;

transmit data from the second processor to the first processor when the second user selects one or more images of the action prompt; and

a program executed by the first processor and configured to:

receive data from the second processor;

analyze data from the second processor;

generate one or more reports based on an analysis of data from the second processor.

23. The computing system of Claim 22, wherein each of the items arranged to be displayed on the computer screen of the second processor is a unique item that does not overlap with any other item within the sequence in the code.

24. The computing system of Claim 23, wherein the sequence is measured by time in increments of no more than one second.
25. The computing system of Claim 23, wherein at least one of the images of the action prompt displays information about a product and gives an option to the second user to purchase the product through the second input interface.

26. The computing system of Claim 23, wherein the first user is a radio broadcaster or a podcaster.
signal

1010  PRODUCER LIVE
1020  username
1030  password
        SIGN-IN

FIG. 1
### Episodes

<table>
<thead>
<tr>
<th>#</th>
<th>Episode Name to Fill This...</th>
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<th># of Downloads</th>
<th># of Interactions</th>
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Congratulations! You've made $350 so far on this episode. Click here to see a breakdown of earnings.
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</table>
3201 Receive digital audio content
3202 Receive action prompts
3203 Generate programmed content
3204 Distribute programmed content
3205 Monitor audience behavior with respect to programmed content
3206 Collect data from programmed content
3207 Provide an analysis of data collected

FIG. 3A
3211 Identify a show to fetch

3212 Create a reference list of episodes for the show

3213 Fetch audio file and associated metadata from 3rd party hosting server

3214 Add fetched audio file to reference list

3215 More episodes requested?

3216 Are there more episodes in show?

No

Yes
3221 Create a visual representation of the digital audio content

3222 Index the digital audio content

3223 Designate a time-marked section of the programmed content for insertion with an action prompt

3224 Insert an action prompt in the designated section of the programmed content for action prompts

FIG. 3C
8/19

3244
Store action prompt

3243
Save action prompt?

3245
Delete action prompt

3231
Designate a time-marked section of the programmed content for insertion of an action prompt

3242
Insert action prompt?

3232
Provide a catalog of template action prompts

3239
Insert an action prompt in the designated section of the programmed content for action prompts

3238
Identify a digital audio content randomly or that matches action prompt criteria

3237
Designate action prompt as random?

3240
Action prompt an advertisement?

3241
Content producer?

3244
Yes

3240
Yes

3234
Template action prompt selected?

3235
Third party action prompt selected?

3236
Select action prompt

FIG. 3D
Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularized in the 1960s with the release of Letraset sheets containing Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum.
Episode Title
May 21, 2014

ACTION

Call-to-Action

You’re listening to ...
Resume Playing
If you leave signal mid-stream, this allows episodes to instantly pick back up where you left off once you’ve returned to the app.

Instant Playing
Play your shows instantly from a queue of your unplayed shows from your show library
**A. CLASSIFICATION OF SUBJECT MATTER**

H04N 21/25(2011.01)i, H04N 21/45(2011.01)i

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

H04N 21/25; G06F 15/16; G06F 17/00; G10L 15/00; G10L 13/08; H04L 29/06; G06F 3/0484; H04N 21/45

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: electronic audio data package, action prompt, interactivity, customize, radio broadcast

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

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<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
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<td>A</td>
<td>US 2011-0282965 A1 (MIKE DODSON) 17 November 2011 See paragraphs [0012], [0032]-[0069], [0102]-[0124]; claims 1, 14; and figures 1-11.</td>
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<td>US 2009-02044243 A1 (HARPEET MADHA et al.) 15 August 2009 See paragraphs [0046]-[0048], [0070]; and figures 3-5.</td>
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<td>US 2014-0129939 A1 (AUDIBLE, INC.) 08 May 2014 See paragraphs [0013]-[0015], [0063]-[0046]; claim 27; and figures 1-2.</td>
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<td>US 2014-0195251 A1 (JOHNSON CONTROLS TECH, CO.) 10 July 2014 See paragraphs [0029], [0051]-[0062]; claim 1; and figures 3-7A.</td>
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<td>A</td>
<td>WO 2008-128037 A1 (GOOGLE, INC.) 23 October 2008 See paragraphs [0024]-[0032], [0047]-[0049], [0068]-[0075]; claim 16; and figures 1A-1D, 3D.</td>
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Further documents are listed in the continuation of Box C. See patent family annex.

* Special categories of cited documents:
  
  "A" document defining the general state of the art which is not considered to be of particular relevance
  
  "E" earlier application or patent but published on or after the international filing date
  
  "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
  
  "O" document referring to an oral disclosure, use, exhibition or other means
  
  "P" document published prior to the international filing date but later than the priority date claimed
  
  "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
  
  "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
  
  "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
  
  "Z" document member of the same patent family

Date of the actual completion of the international search
13 January 2016 (13.01.2016)

Date of mailing of the international search report
13 January 2016 (13.01.2016)

Name and mailing address of the ISA/KR
International Application Division
Korean Intellectual Property Office
189 Cheongna-ro, Seo-gu, Daejeon, 3408, Republic of Korea

Facsimile No. +82-42-472-7140

Authorized officer
LEE, Jin Ick

Telephone No. +82-42-481-5770

Form PCT/ISA/210 (second sheet) (January 2015)
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