US 20070112630A1

(19) United States

(12) Patent Application Publication

(10) Pub. No.: US 2007/0112630 A1

(43) Pub. Date: May 17, 2007

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(54) TECHNIQUES FOR RENDERING ADVERTISMENTS WITH RICH MEDIA

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(21) Appl. No.: **11/594,707**

(22) Filed: **Nov. 7, 2006**

Related U.S. Application Data

(60) Provisional application No. 60/733,874, filed on Nov. 7, 2005. Provisional application No. 60/784,415, filed on Mar. 20, 2006.

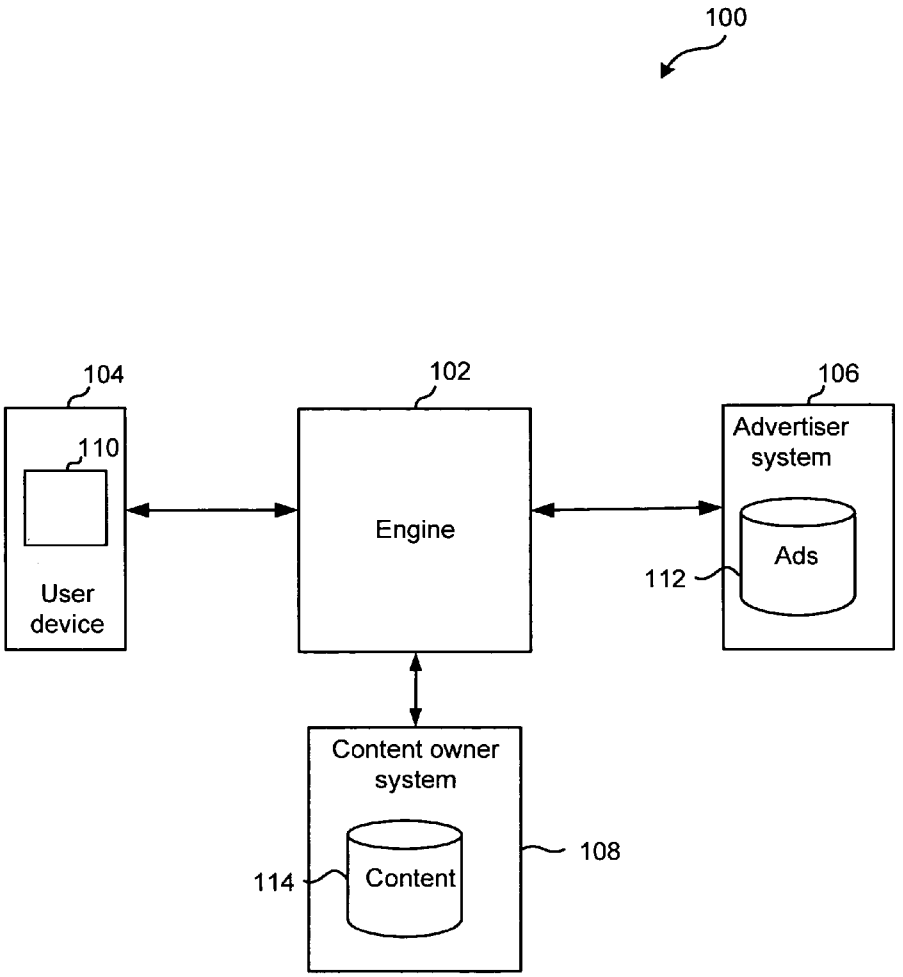
Publication Classification

(51) **Int. Cl.**
G06Q 30/00 (2006.01)

(52) **U.S. Cl.** **705/14**

(57) **ABSTRACT**

In one embodiment, an advertisement is matched to subject matter in a portion of rich media content, such as a digital video, Flash™ animation, etc. For example, during the playing of rich media content, it may be determined by audio recognition techniques that the content's subject matter matches or correlates with an advertisement. Rendering preferences associated with the advertisement are then determined. The rendering preferences may be used to determine how the advertisement should be rendered (i.e., displayed in association with the content). The advertisement is then served to a device. The advertisement is served such that it can be rendered relative to a time that the portion of media is being displayed on the device.



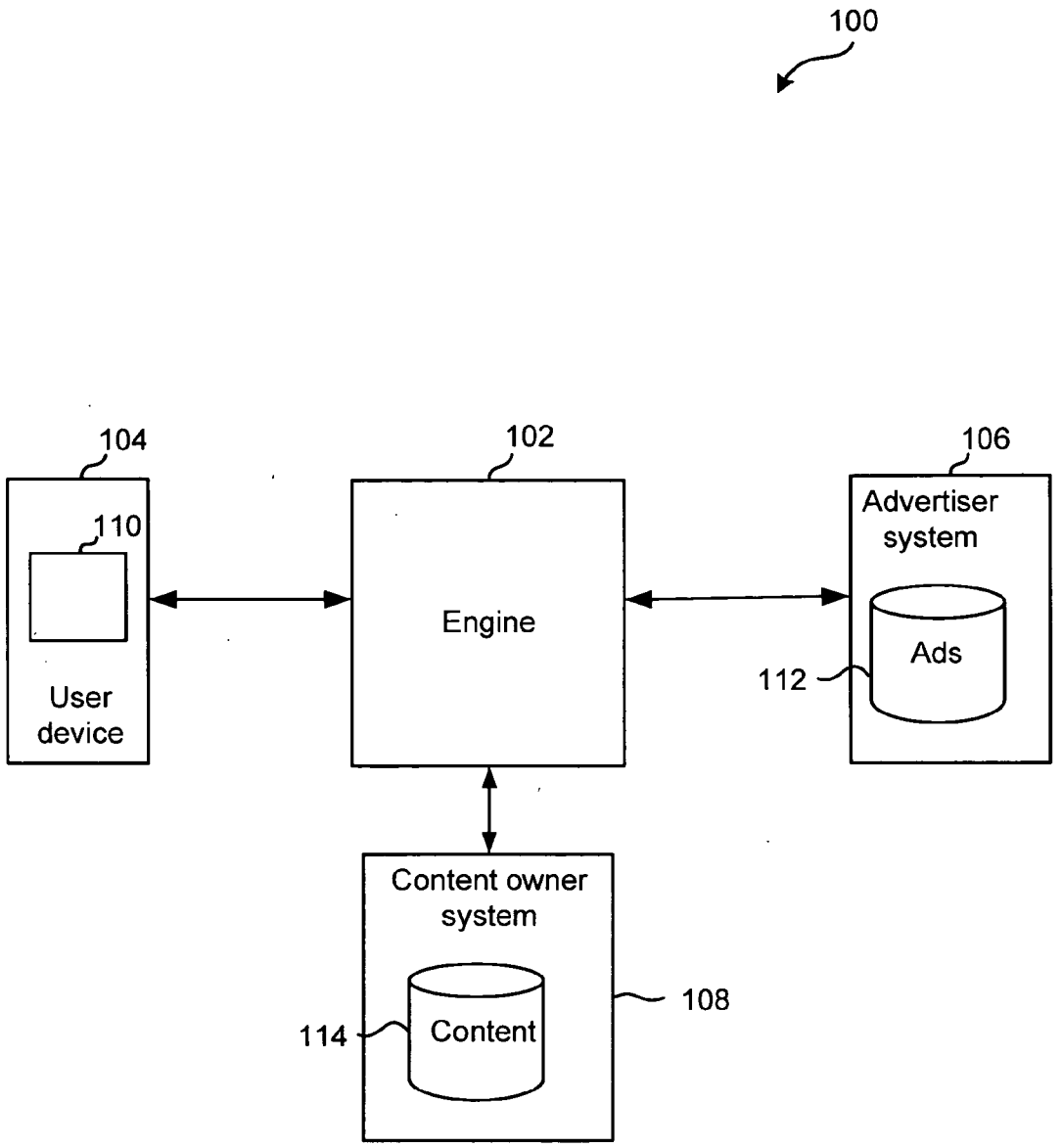

100
104
110
User device
102
Engine
106
Advertiser system
Ads
112
Content owner system
Content
114
108

Fig. 1

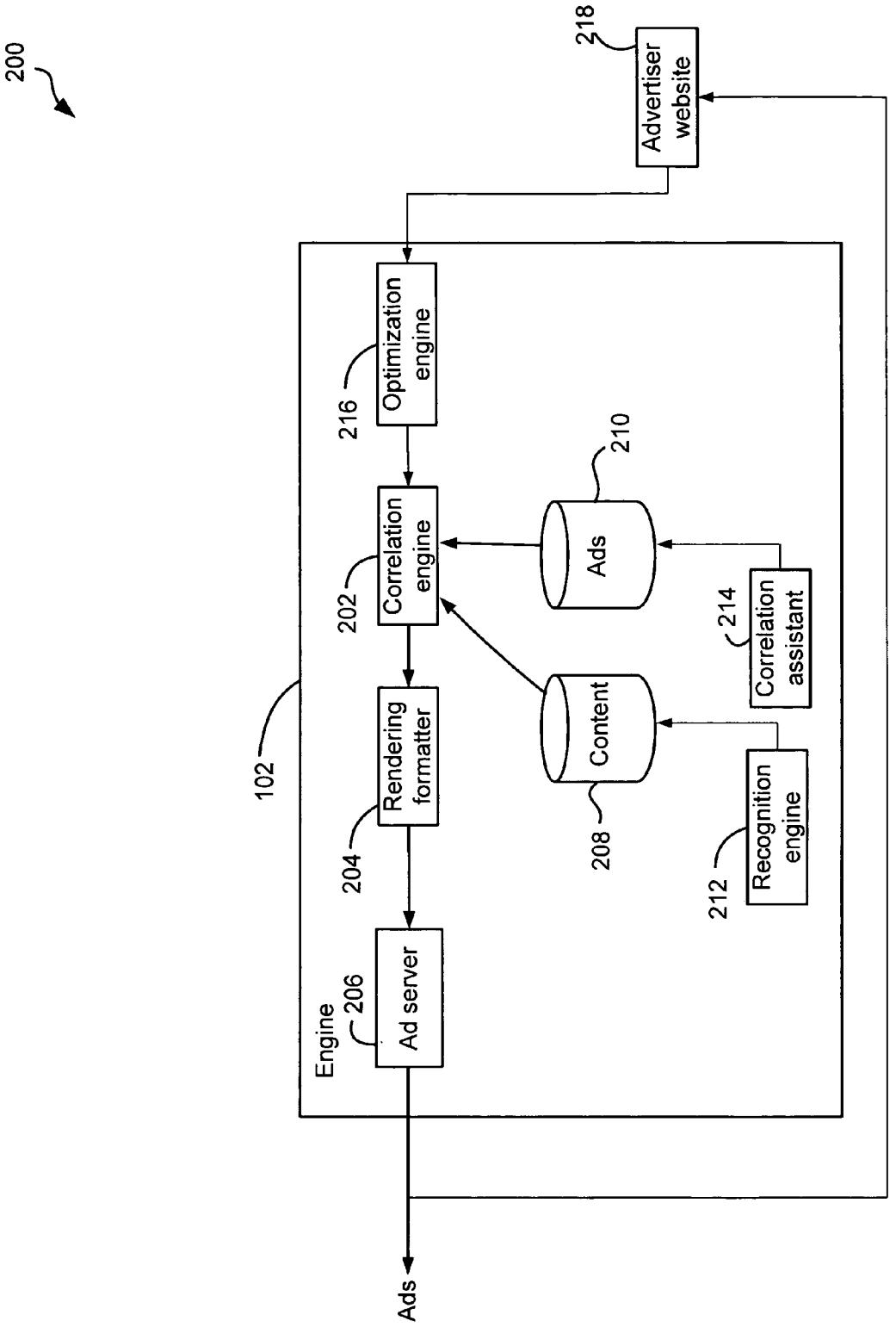

200
218
Advertiser website
216
Optimization engine
202
Correlation engine
210
Ads
214
Correlation assistant
102
204
Rendering formatter
208
Content
212
Recognition engine
Engine
206
Ad server
Ads

Fig. 2

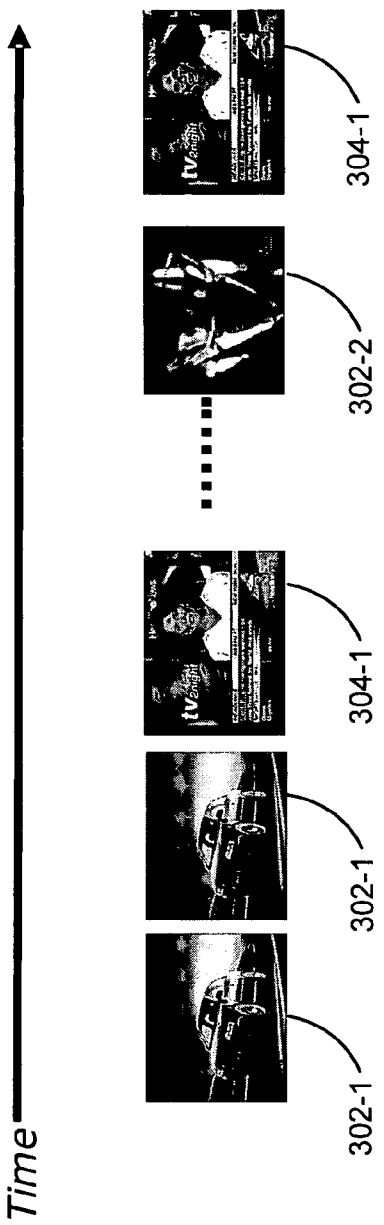

Time
302-1
302-1
304-1
302-2
304-1

Fig. 3A

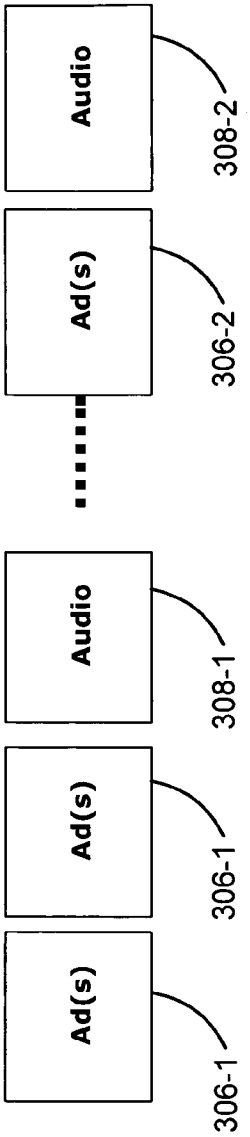

Ad(s)
306-1
Ad(s)
306-1
Audio
308-1
Ad(s)
306-2
Audio
308-2

Fig. 3B

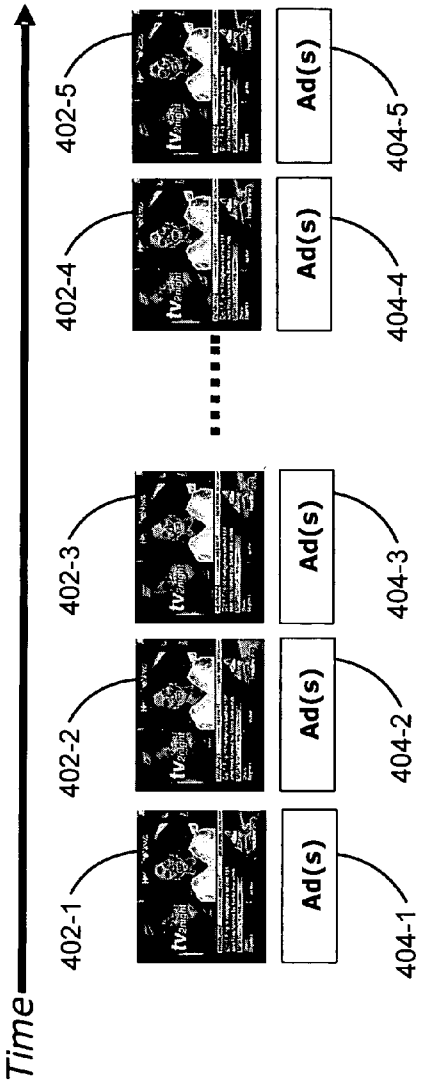

Time
402-1
402-2
402-3
402-4
402-5
Ad(s)
Ad(s)
Ad(s)
Ad(s)
Ad(s)
404-1
404-2
404-3
404-4
404-5

Fig. 4A

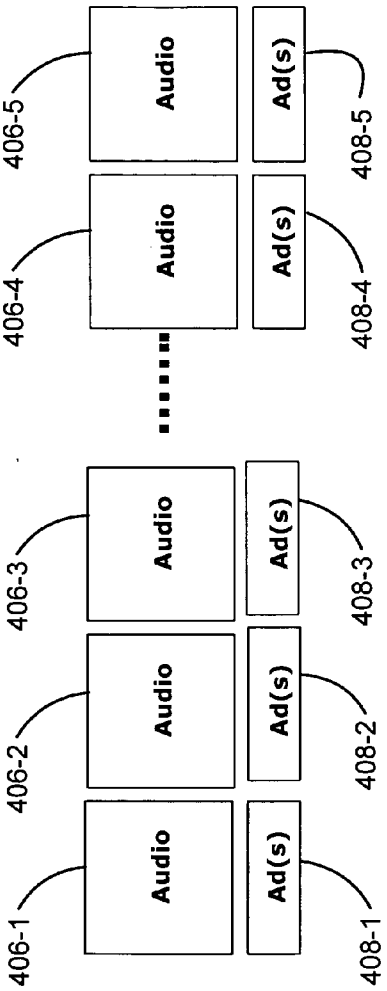

406-1
406-2
406-3
406-4
406-5
Audio
Audio
Audio
Audio
Audio
Ad(s)
Ad(s)
Ad(s)
Ad(s)
Ad(s)
408-1
408-2
408-3
408-4
408-5

Fig. 4B

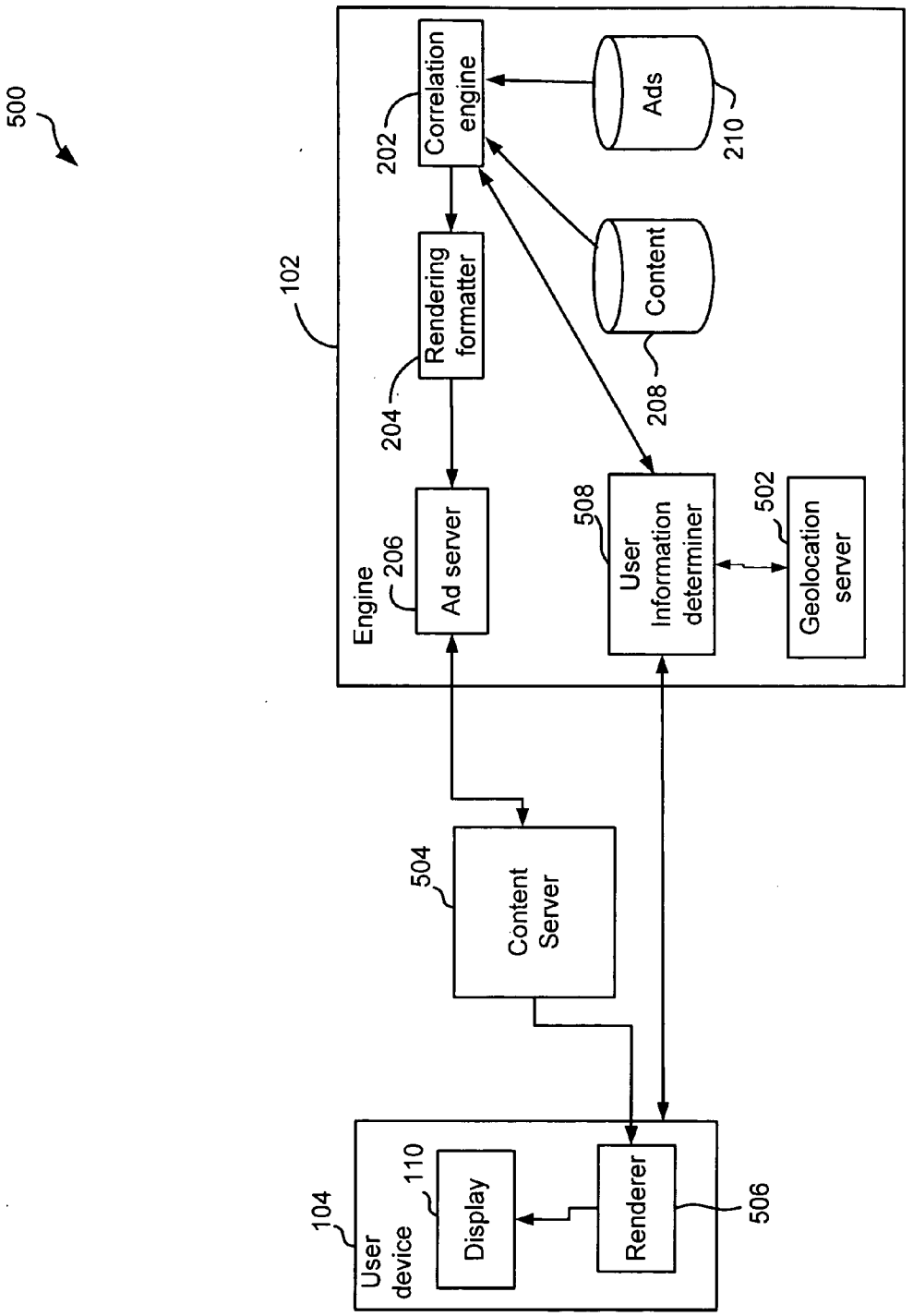

500
102
Engine
202
Correlation engine
204
Rendering formatter
206
Ad server
Ads
210
Content
208
508
User Information determiner
502
Geolocation server
504
Content Server
104
User device
110
Display
Renderer
506

Fig. 5

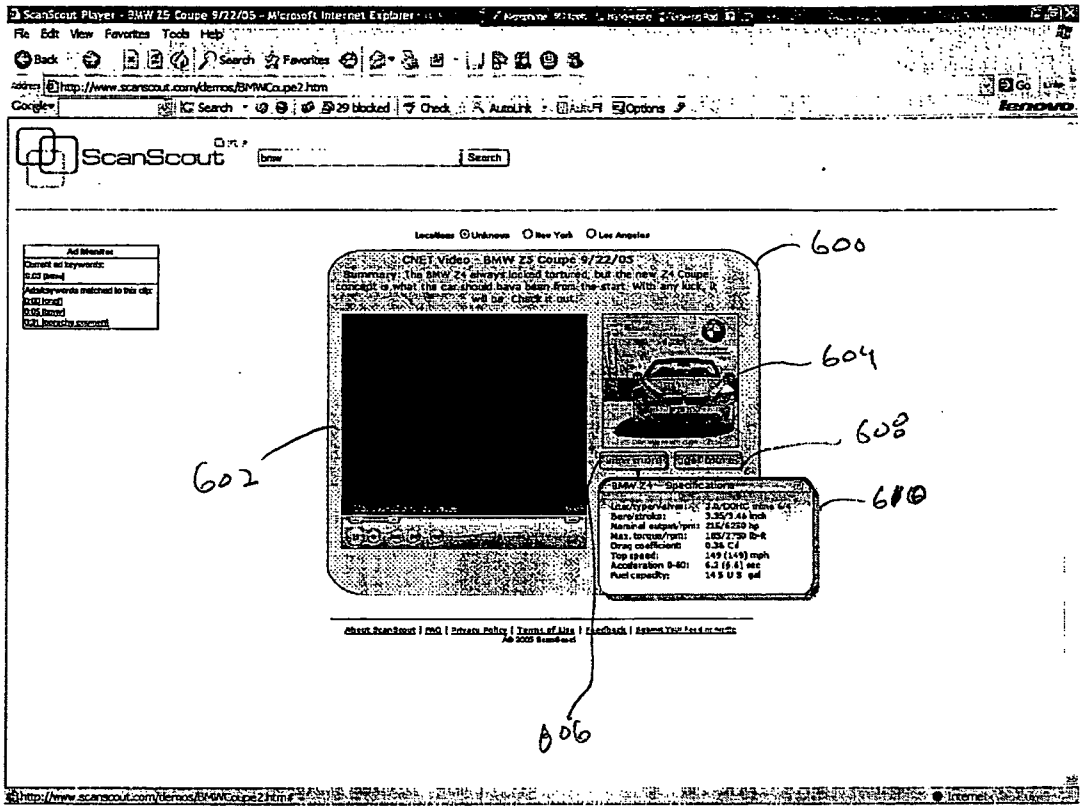


Fig. 6

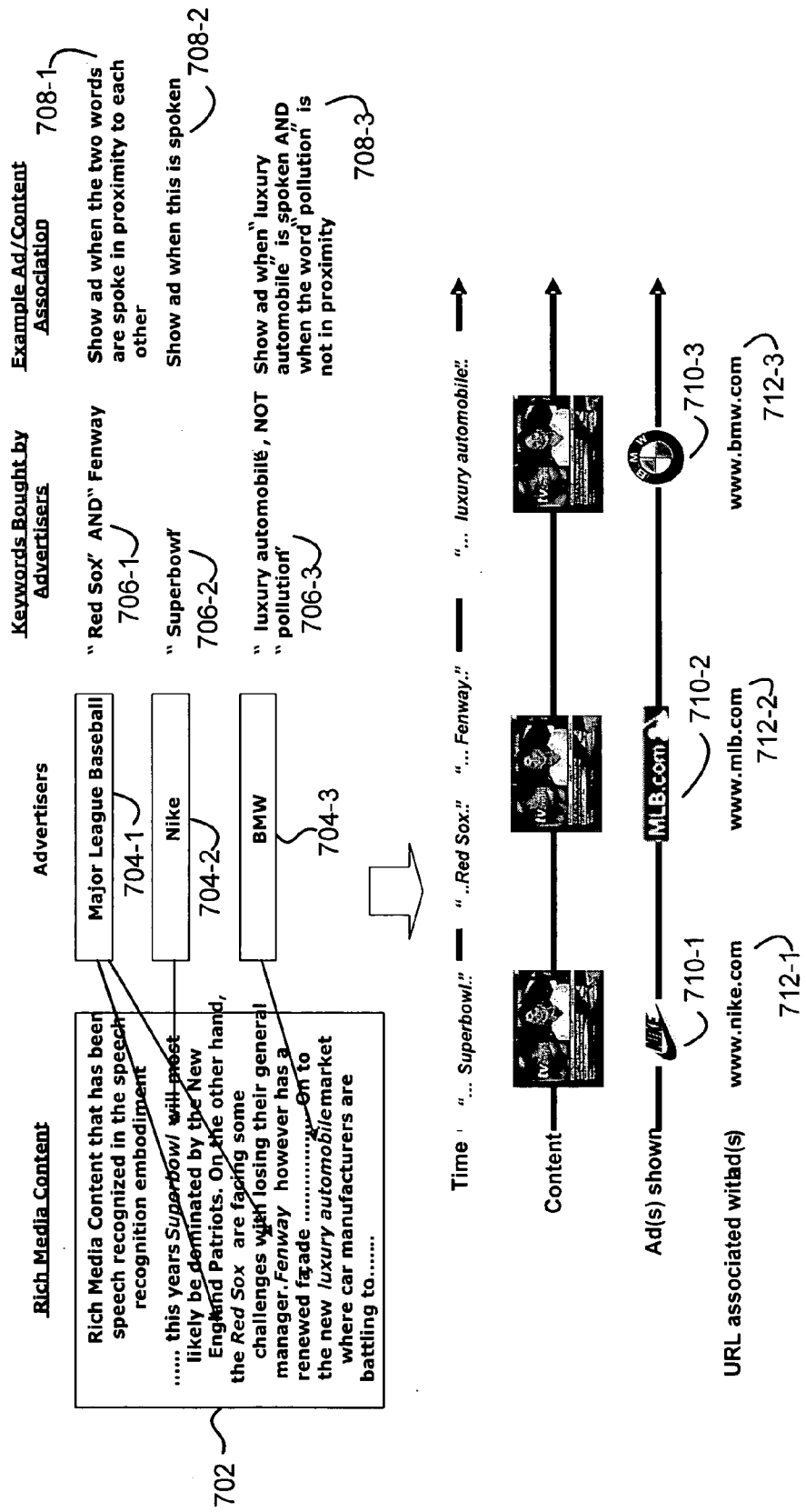

Rich Media Content
Advertisers
Keywords Bought by Advertisers
Example Ad/Content Association
Rich Media Content that has been speech recognized in the speech recognition embodiment
..... this years Superbowl will most likely be dominated by the New England Patriots. On the other hand, the Red Sox are facing some challenges with losing their general manager. Fenway however has a renewed façade ..... On to the new luxury automobile market where car manufacturers are battling to.....
Major League Baseball
Nike
BMW
" Red Sox" AND" Fenway
" Superbowl"
" luxury automobile", NOT " pollution"
Show ad when the two words are spoke in proximity to each other
Show ad when this is spoken
Show ad when" luxury automobile" is spoken AND when the word" pollution" is not in proximity
702
704-1
704-2
704-3
706-1
706-2
706-3
708-1
708-2
708-3
Time
" ... Superbowl."
" ..Red Sox."
" ... Fenway."
" ... luxury automobile."
Content
Ad(s) shown
URL associated with ad(s)
www.nike.com
www.mlb.com
www.bmw.com
710-1
710-2
710-3
712-1
712-2
712-3

Fig. 7

802

right. but, the big news yesteday was [um] verizon finally finally finally announced the official availability of the **razr v. three** c, yes the long awaited c. d. m. a. **razr**. we've been hearing about this forever. yes, since since c. t. l. a. earlier this year. oh jesus. yeah it's been it's been it's been a long time. [uh] so why don't you run down the specs on this one for us. well, it does have **e. v. d. o.**, which is the, of course, what everybody really likes. yeah, and that's a big step up over the v three. right. which only has **g. p. r. s.** [um] this has a one point three (megapixel camera **=> megabyte diskdrive)**.

verizon wireless

T-Mobile

Seagate

804

	razr	e.v.d.o.	g.p.r.s.	megabyte diskdrive
Rec engine lattice prob	98/97	95	93	32
Match concentration	20/20	10	10	10
Match position	100/50	100	100	100
Ad past performance	-	-	-	-
Ad cost/price	-	-	-	-
Total	**208/167**	**205**	**203**	**142**

Fig. 8

TECHNIQUES FOR RENDERING ADVERTISMENTS WITH RICH MEDIA

CROSS REFERENCES TO RELATED APPLICATIONS

[0001] This application claims priority from U.S. Provisional Patent Applications No. 60/733,874, entitled "Method and System for Contextually Matching Advertisements with Rich Media Content", filed Nov. 7, 2005 and 60/784,415 entitled "Method and System for Contextually Matching advertisements with Rich Media Content", filed Mar. 20, 2006, which are incorporated by reference in their entirety for all purposes.

BACKGROUND

[0002] Embodiments of the present invention generally relate to digital media and more specifically to displaying advertisements with rich media content.

[0003] A user can perform a text search for content using a search engine. When the search is matched to text content, the results are displayed on a web page. The search results are typically static. For example, if a user was searching for certain web pages, the web pages and URLs would be listed on the page and do not change.

[0004] Advertisements related to the content may then be placed in certain sections of the page. Because the content on the page is static, the advertisements are matched to the search once. The placement of the advertisement on the page may be optimized, such as placing the advertisements at the beginning of the results. However, because the content on the web page is static, there is no need to match the advertisements to content that changes over a period of time. It is assumed that once the search is finished, the content remains the same.

SUMMARY

[0005] Embodiments of the present invention generally relate to serving advertisements with rich media content.

[0006] In one embodiment, an advertisement is matched to subject matter in a portion of rich media content, such as a digital video, Flash™ animation, etc. For example, during the playing of rich media content, it may be determined by audio recognition techniques that the content's subject matter matches or correlates with an advertisement. Rendering preferences associated with the advertisement are then determined. The rendering preferences may be used to determine how the advertisement should be rendered (i.e., displayed in association with the content).

[0007] The advertisement is then served to a device. The advertisement is served such that it can be rendered relative to a time that the portion of media is being displayed on the device. For example, the advertisement may be rendered on the device according to an advertising plan paid for a by a sponsor. The advertising plan can include criteria for matching the advertisement to the content, a manner of displaying the ad (size, position, ad content, ad animation, etc.), or other factors. In one embodiment, the advertisement may be displayed serially with the portion of rich media content, in parallel with the portion of rich media content, injected into the rich media content, etc.

[0008] A further understanding of the nature and the advantages of the inventions disclosed herein may be realized by reference of the remaining portions of the specification and the attached drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] FIG. **1** depicts a simplified system for serving advertisements with rich media content according to one embodiment of the present invention.

[0010] FIG. **2** depicts a more detailed example of the system shown in FIG. **1** according to one embodiment of the present invention.

[0011] FIG. **3**A depicts a video example of rendering advertisements serially according to one embodiment of the present invention.

[0012] FIG. **3**B shows an audio example of rendering advertisements serially in rich media content that includes audio according to embodiments of the present invention.

[0013] FIG. **4**A depicts a video example of rendering advertisements in parallel according to embodiments of the present invention.

[0014] FIG. **4**B depicts an audio example of rendering advertisements in parallel according to embodiments of the present invention.

[0015] FIG. **5** depicts a system for initiating serving of advertisements according to one embodiment of the present invention.

[0016] FIG. **6** shows an example interface according to one embodiment.

[0017] FIG. **7** shows an example of how content may relate to keywords purchased by advertisers according to one embodiment.

[0018] FIG. **8** shows an example of the scoring system according to one embodiment.

DETAILED DESCRIPTION OF EXAMPLE EMBODIMENTS

System

[0019] FIG. **1** depicts a simplified system **100** for serving advertisements with rich media content according to one embodiment of the present invention. As shown, an engine **102**, user device **104**, advertiser system **106**, and content owner system **108** are provided.

[0020] Engine **102** may be any device/system that provides serving of advertisements to user device **104**. In one embodiment, engine **102** correlates advertisements to subject matter associated with rich media content. Accordingly, an advertisement that correlates to the subject matter associated with the portion of rich media content may be served such that it can be rendered on user device **104** relative to the portion of rich media content. Different methods may be used to correlate or match advertisements to portions of the rich media content.

[0021] Advertiser system **106** provides advertisements from advertisement database **112**. Advertisements may be any content. For example, advertisements may include information about the advertiser, such as the advertiser's prod-

ucts, services, etc. Advertisements include but are not limited to elements possessing text, graphics, audio, video, animation, special effects, and/or user interactivity features, uniform resource locators (URLs), presentations, targeted content categories, etc. In some applications, audio-only or image-only advertisements may be used.

[0022] Advertisements may include non-paid recommendations to other links/content within the site or to other sites. The advertisement may also be data from the publisher (other links and content from them) or data from a servicer of engine (e.g., from its own data sources (such as from crawling the web)), or some other 3rd party data sources. The advertisement may also include coupons, maps, ticket purchase information, or any other information.

[0023] An advertisement may be broken into ad units. An ad unit may be a subset of a larger advertisement. For example, an advertiser may provide a matrix of ad units. Each ad unit may be associated with a concept. The ad units may be selected individually to form an advertisement. Thus, advertiser system **106** is not restricted to just serving an entire advertisement. Rather, the most relevant pieces of the advertisement may be selected from the matrix of ad units.

[0024] The ad units may perform different functions. Instead of just relaying information, different actions may be facilitated. For example, an ad unit may include a widget that collects user information, such as email address or phone number. The advertiser may then contact the user later with additional info about its products/services.

[0025] An ad unit may also include a widget that stores a history of ads. The user may use this widget to rewind to any of the previously shown ads, fast forward and see ads yet to be shown, show a screen containing thumbnails of a certain number of ads such that a user can choose which one to play, etc.

[0026] An ad unit may include a widget that allows users to send the ad to others. This facilitates viral spreading of the ad. For example, the user may use an address book to select users to forward the ad to. Further, an ad unit, when it is replaced by another ad unit, may be minimized into a small widget that allows the user to retrieve the ad, send to others, etc.

[0027] Different ways of creating an ad unit may also be appreciated. An ad unit may be created by applying a template on existing static ad units and turning them into video that may serve as pre/mid/post-roll. An ad unit may be created by taking a static ad and augmenting the unit with an advertiser-specified message dependent on context and keywords.

[0028] Advertisements will be described in the disclosure, but it will be understood that an advertisement may be any of the ad units as described above. Also, the advertisement may be a single ad unit or any number of a combination of ad units.

[0029] Advertiser system **106** provides advertisements to engine **102**. Engine **102** may then determine when to serve advertisements from advertisement content **112** to user device **104**. This process will be described in more detail below.

[0030] Content owner system **108** provides content stored in content database **114** to engine **102** and user device **104**. The content includes rich media content. Rich media content may include but is not limited to content that possesses elements of audio, video, animation, special effects, and/or user interactivity features. For example, the rich media content may be a streaming video, a stock ticker that continually updates, a pre-recorded web cast, a movie, Flash™ animation, slide show, or other presentation. The rich media content may be provided through a web page or through any other methods, such as streaming video, streaming audio, pod casts, etc.

[0031] Rich media content may be digital media that is dynamic. This may be different from non-rich media content, which may include standard images, text links, and search engine advertising. The non-rich media may be static over time while rich media content may change over time. The rich media content may also include user interaction but does not have to.

[0032] User device **104** may be any device. For example, user device **104** includes a computer, laptop computer, personal digital assistant (PDA), cellular telephone, set-top box and display device, digital music player, etc. User device **104** includes a display **110** and a speaker (not shown) that may be used to render content and/or advertisements.

[0033] Advertisements may be served from engine **102** to user device **104**. User device **104** then can render the advertisements. Rendering may include the displaying, playing, etc. of rich media content. For example, video and audio may be played where video is displayed on display **110** and audio is played through a speaker (not shown). Also, text may be displayed on display **110**. Thus, rendering may be any output of rich media content on user device **102**.

[0034] In one embodiment, the advertisements are correlated to a portion of the rich media content. The advertisement can then be displayed relative to that portion in time. For example, the advertisement may be displayed in serial, parallel, or be injected into the rich media content. The different ways of rendering the advertisements relative to the rich media content will be described in more detail below.

Correlation

[0035] FIG. **2** depicts a more detailed example of system **100** according to one embodiment of the present invention. As shown, engine **102** includes a correlation engine **202**, a rendering formatter **204**, an ad server **206**, a content database **208**, an ad database **210**, a recognition engine **212**, correlation assistant **214**, an optimization engine **216** and advertiser web site **218**.

[0036] Correlation engine **202** receives advertisements from ad database **208** and content from content database **208**. The advertisements and content may have previously received from content owners and advertisers.

[0037] Correlation engine **202** is configured to determine an advertisement that correlates to subject matter associated with a portion of the rich media content. For example, at a certain time, period of time, or multiple instances of times, an advertisement may be correlated to subject matter in the rich media content. For example, an advertisement may be associated with a keyword. When that keyword is used in the

rich media, correlation engine **202** correlates the advertisement to a portion of rich media content in which the keyword is used.

[**0038**] Correlation engine **202**, when determining the advertisement, may determine one or more ad units that correlate to the subject matter. For example, based on one or more keywords, ad units from the ad matrix are determined. The ad units are then combined into an advertisement that is correlated to the subject matter. One example of this is BMW may provide a general ad unit for their logo and have a different ad unit for different models, such as the **330** model, **530** model, etc. The logo unit and each of the model units can be combined at runtime based on the context of the content. If the content talks about the **330** model then the logo and the **330** ad units may be combined and presented to the user.

[**0039**] Correlation engine **202** may also use user information to correlate advertisements to subject matter associated with a portion of the rich media content. User information may be any user information that is associated with a user of user device **104**. For example, user information may include information about the behavior of a user. An account behavioral analysis of user information, such as from cookies, from account information, etc. may be used, in addition to contextual analysis of the content. This may help correlate which advertisements may be more relevant to the user based on the previous behavior of the user. Other user information may also include demographic data, recent sites visited by the user, and user actions such as mouse movement during presentation of an ad, etc. In one example, if the user had previously visited web sites for a certain advertiser, then it may be more effective to send the user an advertisement from that advertiser.

[**0040**] Correlation recognition detection techniques may be used to determine that the advertisement is correlated to the portion of rich media content. For example, keywords may be detected in the rich media using audio recognition. Audio recognition may include speech recognition, music detection on music portions, sound effect detection on sound effects, etc. Other techniques for keyword detection can include using preset word tags or indicators in the rich media content. Image recognition can be used on visual portions of the rich media content. For example, optical character recognition (OCR), facial recognition, object matching, etc. Other recognition techniques can be employed. For example, any suitable way of determining the content of rich media can be used to correlate a portion of the rich media content to an advertisement.

[**0041**] Recognition engine **212** receives rich media content that may be accessed by a user and uses correlation recognition detection techniques to recognize the content. In one embodiment, recognition engine **212** using audio recognition techniques, such as speech recognition, whereby the audio within the content would be recognized. In another embodiment, recognition engine **212** may be a video or visual analysis engine that generates data regarding the visual content of the rich media. In another embodiment, it could be natural language processing engine. In yet another embodiment, it may be an indexing engine that culls and processes textual meta-data associated with the content. Other audio recognition techniques may also be appreciated.

[**0042**] Recognition engine **212** is a processor that outputs relevant tags about the content that the rest of system **100** may use to match appropriate ads at the appropriate time when the content is accessed and played. For example, the information may be keywords recognized from audio in the content. Recognition engine **212** may generate a unique ID for each piece of content. In one embodiment, recognition engine **212** transcribes the audio within the content into text and related concepts. In the video or visual recognition embodiment, meta-data about the visual content is generated or culled from the content itself. In the textual meta-data embodiment, the meta-data is culled from the content and processed. Each concept, word, or meta-data may be time-stamped and stored in storage **208**. It may be stored in a hash table, index, or database. This provides an index of information recognized from the content.

[**0043**] In some cases, recognition engine **212** may not definitively recognize a word. When uncertainty exists, such as with speech recognition or visual analysis, a lattice of the concepts, words, or meta-data are stored with associated probabilities. The lattice contains alternatives to the best choice when the probability associated with the best choice is low. Similar words may be determined and included in the lattice. Also, alternative words for words that are typically hard to recognize may also be included in the lattice.

[**0044**] The recognition may be performed in non real-time or in real-time. In non real-time, content owners submit their content to recognition engine **212** prior to an audience viewing the content. In the real-time embodiment, the content would be recognized as it is being accessed and played by users.

[**0045**] In determining when an advertisement correlates to subject matter associated with a portion of rich media content, a time to render the advertisement relative to the content that maximizes one or more criteria may be determined. For example, correlation engine **202** may determine a sequence of advertisements that maximize revenue. These advertisements are time aligned to correlate to the subject matter to maximize the revenue.

[**0046**] Advertisers may buy correlation information, such as keywords, phrases or concepts, either through a bidding process or some other means, and submit their ads and related information to correlation engine **202** though correlation assistant **214**. Keywords may be words that can be used to match information in the content. The phrases may be any combination of words and other information, such as symbols, images, etc. The concepts may be a conceptual idea of something. For example, if a portion of rich media talks about Lebron James, this can be conceptualized to basketball, and we can match advertisements to basketball to the rich media even if for some reason the exact term "basketball" is not mentioned. The related information includes but is not limited to URLs, presentations of ads, targeted content categories, etc. to be associated with the ad space or inventory they have bought. The advertiser can also specify anti-keywords, phrases, or concepts. An anti-keyword is a keyword or phrase that an advertiser chooses such that if that keyword or phrases is recognized in the rich media content, the advertiser's ad would not be shown, even if there is a keyword/phrase match.

[**0047**] The selection of normal/anti-keywords, normal/anti-phrases, and normal/anti-concepts is useful for ad matching performance. For example, if General Motors purchases the keyword "General Motors" for its ad, the ad

may very well be matched to a video discussing a General Motors layoff, if the anti-keyword "layoff∓ is not selected. To prevent these matches, correlation assistant **214** determines appropriate content for advertiser's ads. Once advertisers enter their desired keywords, phrases, or concepts, correlation assistant **214** may present other text correlated to those keywords. The other test may be based on analysis of historic content in the recognized content. Also, the related text may also be taken from external knowledge sources and databases. For example, a spider may search the web for popular news stories. The news stories may be indexed and words may be determined that are found in the stories. If the word "General Motors" occurs frequently near the word "layoff" in the index, correlation assistant **214** may suggest the term "layoff" when "General Motors" is chosen. The advertiser can then specify whether each of the desired keywords or text fragments suggested correlation assistant **214** is positive, neutral, or negative to the content they would like to target. In this way, the advertiser can better refine their selection. A list of anti-keywords may then be determined and stored in storage **210**.

[**0048**] Also, the keywords that an advertiser wants to bid on may also be determined using correlation assistant **214**. Suggestions as to which keywords may be associated with an advertiser may be provided. The more popular keywords may then be bid on by the advertiser. By showing how popular a keyword is, higher bids may be received or required. Also, when a keyword is bid on by an advertiser. Correlation assistant **214** may display similar keywords for an advertiser to choose from. This may give an advertiser more keywords to bid on or even better keywords that may result in better matches.

[**0049**] Advertisers may also specify other associations for their ads. Such associations may include but are not limited to keyword/anti-keyword, phrase/anti-phrase, concept/anti-concept, and domain category/anti-category. A category may refer to sports, news, business, entertainment, etc.

[**0050**] Correlation assistant **214** may generate a unique ID for each ad submitted. These ads and related information would be stored in storage **214** as an index or other data structure. In one embodiment, each ad unit may be identified. For example, a matrix identification system may be used to identify different ad units for an advertiser.

[**0051**] The data and meta-data (for example, spoken words and concepts) of the indexed and time-stamped content are stored in storage **208**. Correlation engine **202** may relate a unique content ID with a time series of keywords and concepts (that advertisers have purchased), and in turn, relate the keywords and concepts to ads submitted by advertisers.

[**0052**] FIG. **7** shows an example of how content may relate to keywords purchased by advertisers according to one embodiment. A recognition of content **702** is shown. This is a text version of rich media content. For example, a newscast has been translated from speech to text using speech recognition techniques.

[**0053**] The ads may be correlated to content in different ways. In one embodiment, keywords may be associated with each ad. Content may be searched to determine if the content includes the keywords. Then the ad may be correlated to the content. For example, an index of keywords may be generated for each piece of content. The correlation may be performed for all ads and a series of ads may be matched to different content in storage **208**.

[**0054**] In another embodiment, keywords in a piece of content may be determined. Different ads that correlate to the content may then be determined. For example, for each keyword determined, one or more ads that are associated with the keyword are determined. The ads to display may then be selected.

[**0055**] The correlation may be performed in non real-time or in real-time. In the non-real time embodiment, correlation engine **202** may perform the correlation at regular intervals.

[**0056**] In one example of correlation in the non real-time embodiment, for each ad, correlation engine **202** finds candidate content that may be relevant. This is done by searching for content in the index to match the keywords, categories, and concepts associated with the ad to information in the content. Correlation engine **202** may perform the search not only on the top choices (e.g., keywords) generated by recognition engine **212**, but on the entire lattice of possible alternatives. The content index may also include a long tail of words, especially proper nouns such as names and foreign entities. This long tail includes many proper nouns such as names and foreign entities. When an out-of-vocabulary keyword is associated with an ad, that word is converted to other in-vocabulary words with similar phonetic make-up.

[**0057**] For each piece of candidate content associated with an ad, correlation engine **202** determines candidate times where the content may be relevant to the ad. Correlation engine **202** locates the times where the keywords and concepts match. For each candidate time, correlation engine **202** creates an "ad anchor" holding the score for the match. The score may be a linear combination of the following weights:

[**0058**] 1. Probability of the keyword/concept match pulled from the recognition lattice.

[**0059**] 2. Concentration of the match—the more keywords/concepts for the ad matches near the time, the higher the score. One embodiment of this score may be a count of the number of matches within a certain window of the current time.

[**0060**] 3. Position of match relative to other matches—the more likely that the current time starts a segment on the keywords/concepts, the higher the score. One embodiment of this score may be the inverse of a count of the number matches before a certain amount of time.

[**0061**] 4. Historical performance—the prior performance of an ad. For example, if an ad previously placed resulted in a user selection of the ad, the ad may be considered a better match.

[**0062**] 5. Price of the ad placement—the price of the bid may be taken into account to determine the match. For example, higher bids for the ad may be considered better matches. Also, higher bids may be placed in a separate area of the display screen, etc.

[**0063**] 6. Geo-location match—the area where the content may be displayed may be considered in matching the ad to content.

[0064] 7. Demographic—a classification of a user, such as age bands, social class bands, and gender.

[0065] 8. Behavioral—the actions or reactions of an object or organism, usually in relation to the environment.

[0066] 9. Psychographic profile—any attributes relating to personality, values, attitudes, interests, or lifestyles.

[0067] 10. Past performance—the past performance of an ad.

[0068] For each piece of content, correlation engine **202** may prune away the low scoring anchors. For example, a threshold may be used where anchors below the threshold are not considered. For each remaining anchor, correlation engine **202** extends the segment for the ad to the minimum time for the ad. This is either a global minimum or a setting configured by the advertiser or content owner. For example, if the ad is a logo, the logo may be displayed for the minimum amount of time.

[0069] For each pair of overlapping ads, correlation engine **202** disambiguates the overlapping ads by selecting the ad with the higher score. Remaining empty space may be filled by extending the previous ad, filling it with pruned ads, or by filling with ads that score generically well. Also, ad units may be chosen to fill in the space. If ads are in 5 second intervals, the best matching 5 second intervals may be chosen depending on how much empty space there is to fill.

[0070] In the real time embodiment, recognition engine **212** may determine keywords from the content. As recognition engine **212** produces a streaming lattice of keywords or concepts, a rolling window of the lattice is used to look up potentially relevant ads. Whenever a possible relevant ad is found, the ad is scored in the same way as in the non-real time case. Correlation engine **212** makes an immediate decision on whether the ad is appropriate. A hard threshold may be used to make the determination. The value of the threshold is determined experimentally to optimize relevance and minimize false acceptances.

[0071] As shown in FIG. **7**, advertisers **704** have keywords **706** associated with ads. Also, association rules **708** are provided that guide when to correlate an ad to the keyword.

[0072] Advertiser **704-1** is the Major League Baseball and has specified the keywords "Red Sox" and "Fenway". The ad may be correlated to the keyword when the two words are found in content proximate to each other. For example, the words may have to be within a certain number of words in the content.

[0073] Advertiser **704-2** is Nike and the keyword "Superbowl" is associated with it. The ad for Nike may be shown when the keyword Superbowl is spoken in content.

[0074] Advertiser **704-3** is BMW and the keyword "Luxury Automobile" is associated with it. Also, an anti-keyword shown as NOT "pollution" is also associated with BMW. In this case, when the word luxury automobile is spoken without the word pollution in proximity, then the BMW ad may be matched to the content.

[0075] As shown in content **702**, the keywords are found for all three advertisers. The ads may be correlated to the content at the time the words are spoken in the content. As shown in FIG. **8**, as the words are spoken, as advertisement for each advertiser **704** is shown.

[0076] In one embodiment, a logo **710** for advertisers **704** is shown and displayed in parallel with the content. Other display options may be used and are described herein. A uniform resource locator (URL) **712** may be associated with the ads. For example, when the ads are selected or clicked on, a window may be opened and redirected to the URL.

[0077] The information shown in FIG. **7** may be stored as a table or tables relating content and content-related information, time series to display ads and time series-related information, and characterizations of the ads to be displayed (ad ID, presentation of ad, URL of ad, etc.). This then in effect relates ads to content. In the real-time embodiment, the content is processed by the recognition engine and matched with ads as the content is being played to a user.

[0078] FIG. **8** shows an example of the scoring system according to one embodiment. As shown, recognized text for a piece of content is shown in block **802**. In this example, Motorola owns the keyword "razr", Verizon owns the keyword "e.v.d.o.", T-Mobile owns the keyword "g.p.r.s.", and Seagate owns the keyword "megabyte diskdrive". Correlation engine **202** recognizes the content with the exception of "megapixel camera" being misrecognized as "megabyte diskdrive". In this case, the spoken word was recognized as the wrong word, which may happen from time to time depending on the recognition engine that is used. Note that "razr" shows up twice in the transcript hence is scored twice.

[0079] The scores in table **804** may correspond to any of the 10 weights described above. More or fewer weights may be included in table **804**. As shown, five weights are being used. All the recognition scores are similar except the misrecognized phrase gets a much lower score. The recognition score may be related to the confidence that the word was properly recognized. The match concentration score is highest for "razr" because the word shows up twice near each other, whereas the other keywords only show up once.

[0080] The match position scores are similar except for the second occurrence for "razr" since initial positions are preferred. In this example, the ad is new so no score is found for any past performance scores. However, if an ad was previously placed and was considered a good placement, the past performance score may be high. For example, if an ad is selected by a user when it was placed, it may receive a good performance score. Also, if the ad was selected and then the user purchased something from the advertiser, then the performance score may be even higher.

[0081] The ad cost/price also shows that Motorola has bid the most for the keyword razr. Accordingly, it has the highest score for the ad cost/price. However, if Verizon had bid more for e.v.d.o, then it might have skewed the final weight in its favor and thus Verizon's ad may be placed.

[0082] Based on the scores, Motorola wins the ad placement in this segment and the ad is shown right after the first occurrence of "razr". If, however, the placement is made, and nobody selects or clicks on the Motorola ad, but on the other hand, the Verizon ad has found success elsewhere with the keyword "e.v.d.o.", the next iteration of the scoring will likely award the placement to Verizon, increasing the potential revenue from the placement. Optimizer engine **216** may receive previous performance information from advertiser website **218**. For example, clickthrough information, purchase information, and billing information, and other user

interaction information may be received. This information may be used to determine a past performance score.

Rendering

[0083] In determining when an advertisement correlates to subject matter associated with a portion of rich media content, a time to render the advertisement relative to the content that maximizes one or more criteria may be determined. For example, correlation engine **202** may determine a sequence of advertisements that maximize revenue. These advertisements are time aligned to correlate to the subject matter to maximize the revenue.

[0084] Rendering formatter **204** then determines how the advertisement should be rendered relative to a time the portion of the rich media content is being played. For example, rendering formatter **204** can determine that an advertisement should be rendered serially relative to the portion of rich media content, in parallel to the portion of rich media content, or injected into the rich media content. In other embodiments, the advertisements may be stored for later display by a user. For example, at any time, the stored advertisements may be displayed even if the rich media content is not being played. In one example, the advertisements may be stored in a folder. An icon may be inserted in display **110**, which can be selected and used to cause display of the stored advertisements.

[0085] When an advertisement is rendered serially relative to a time the portion of the rich media content is being played, it can be rendered post-roll or pre-roll. Post-roll is after the time the portion of rich media content is displayed. For example, the portion of the rich media content may be played and then the advertisement may be rendered after the portion is played. In one example, a media player may be playing the rich media content. When the portion of rich media is finished playing, the advertisement may be rendered using the player. Thus, a user can only watch the rich media content or the advertisement. In other embodiments, the advertisement may be rendered in a different area of display **110** but the playing of the rich media content is stopped while the advertisement is being played.

[0086] In the pre-roll case, the advertisement may be rendered before the portion of rich media content is played. Accordingly, in this case, either the advertisement or the portion of rich media content is being rendered at one time. A variation on this case allows the advertisement to begin playing before the rich content and to continue playing with (i.e., overlap with) the content after the content starts playing. Similarly, a portion of post-roll advertising may overlap with the end of the rich media content.

[0087] In the parallel case, the advertisement may be rendered at substantially the same time the portion of rich media content is being played. It should be noted that at any time during the portion of rich media content being played, the advertisement may be rendered. The advertisement does not have to be rendered for the entire time the portion of rich media content is being played. Also, the advertisement may be rendered at other times when the portion of rich media content is not being played. For example, the advertisement may continue to be rendered after the portion of rich media content has finished being played.

[0088] For the parallel case, the advertisement may be rendered in a separate portion of display **110**. For example, in a different window. Also, other methods may be contemplated, such as the advertisement is rendered in a cut out section of a window playing the rich media content, in a pop up window, overlaid on the rich media content, as audio, etc.

[0089] The advertisement may also be injected into the portion of rich media content. For example, as the portion of rich media content is being played, the advertisement may be rendered in the rich media content.

[0090] Rendering formatter **204** may receive user preferences, content provider preferences, and/or advertiser preferences and use them to determine how the advertisement should be displayed. Although these preferences are discussed, it will be understood that any other preferences may be used.

[0091] User preferences may be any settings that are associated with a user of user device **104**. For example, users may prefer to view advertisements in certain ways. Also, user preferences may indicate a type of user device **104**. This may cause different rendering preferences to be used. For example, if the user is using a smaller user device **104**, such as a PDA, then advertisements may be served serially. This is because a display **110** on the PDA may be too small to display advertisements in parallel. However, if a user is using a user device with a larger display, such as a laptop computer, then advertisements may be served in parallel because the display is larger and may be able to accommodate displaying both the advertisement and rich media content at the same time.

[0092] Content provider preferences may be preferences specified by the content provider. For example, a content owner may only want advertisements shown in parallel because it does not want its content interrupted. Some kinds of content may be more effective if the advertisements are shown in parallel such as movies. However, some content, such as sporting events, may be better suited for showing advertisements serially.

[0093] Advertiser preferences are preferences that may be associated with an advertisement. An advertiser may set these preferences; however, other entities, such as an owner of engine **102**, may also set these preferences. The advertiser preferences may be optimal ways of rendering the advertisement, such as positioning of the advertisement relative to the content, sizing the ad, animating the ad, etc. Any other factors that affect presentation time or effect upon a viewer can be included in advertiser preferences and can become part of a payment program or advertising plan. For example, sponsors that pay more can have their ads presented multiple times over other sponsors who have not paid as much. This can work where multiple sponsors desire that their ads be shown during the same content. Priority can be given to preferred (e.g., higher-paying) sponsors so that the preferred sponsor ads are displayed more often, in place of, or more prominently than non-preferred sponsors.

[0094] Advertising plans can include consideration for the amount of time that an ad is relevant. Preferred sponsors can have their ads presented during the longer relevant intervals while non-preferred ads are allocated to the shorter intervals. If the correlation engine is sophisticated enough to determine qualities such as "impact" (e.g., dramatic or impressionable impact to a viewer) then preferred sponsor ads can be given priority for the dramatic correlations. A dramatic

correlation can be, for example, a hurricane report or other impending weather condition correlating with ads for sales of provisions, survival or safety equipment. Another type of dramatic correlation can be an announcement that an entertainer is going on tour with a correlation to an ad for ticket purchases. Many other types of correlations are possible and they can be ranked and matched to sponsors in various ways to achieve optimized revenue models for a company operating the advertising server or acting as a management or sales entity for such a system.

[0095] There may be rules that specify which preferences are used if preferences conflict. For example, the advertiser preferences may trump any conflicts with user preferences or content owner preferences. Also, the preferences may indicate that the advertisement should be moved in space. For example, if the keyword used is "BMW" but the advertisement is for a Cadillac, BMW may not a Cadillac advertisement so close to when it is being mentioned. Thus, the Cadillac ad may be moved away from the rich media content being played or it may be delayed until a later time when the rich media content is not being mentioned anymore.

[0096] Once rendering formatter **204** determines rendering preferences, ad server **206** is configured to serve the advertisement. The advertisement may be served as a function of time, serially or in parallel or injected, in terms of presentation vis a vis the rich media content. In serving the advertisement, ad server **206** sends it to user device **104** for display. The serving may occur substantially at a time when it should be rendered with the rich media content. Also, the serving may occur prior to when the advertisement should be rendered. For example, the advertisement may be preloaded onto user device **104**. User device **104** can then render the advertisement when it is appropriate according to the rendering preferences.

[0097] Also, in other embodiments, ad server **206** may serve the advertisement for storage in user device **104**. For example, the advertisement may be stored and at a later time rendered. In one example, an icon may be displayed in display **110** and the user can select the icon causing display of the advertisement.

[0098] FIG. **3**A depicts a video example of rendering advertisements serially according to one embodiment of the present invention. As shown, advertisement **302** is rendered and video **304** is played in display **110**. An advertisement **302-1** may be shown pre-roll to video **304**. In one example, the video may be talking about a certain kind of car, such as the newscaster shown is talking about an automobile. In this case, an advertisement for a company that has purchased the keyword "automobile" may be shown before video **304**. For example, every time the word automobile is used, an advertisement for a BMW car is shown. After showing the advertisement, video **304** is shown. The content may continue until a second advertisement **302-2** is shown.

[0099] Second advertisement **302-2** may be shown post-roll or pre-roll to either video **304-1** or video **304-2**. For example, if advertisement **302-2** is shown post-roll, then subject matter in a portion of rich media content **304-2** may be correlated to advertisement **302-2**. After video **304-1** is shown, advertisement **302-2** is shown. If advertisement **302-2** is shown pre-roll, then subject matter in video **304-2** is correlated to advertisement **302-2**. Advertisement **302-2** is shown before video **304-2** in this case.

[0100] FIG. **3**B shows an audio example of rendering advertisements serially according to embodiments of the present invention. As shown, advertisement **306-1** may be rendered before audio **308-1** is played. In one embodiment, advertisements **306-1** may be displayed visually. Also, it will be recognized that advertisement **306-1** may be an audio advertisement such that it can match the content that is being played. Also, a combination of video and audio advertisements **306-1** may be provided. This may be set by the preferences determined in rendering formatter **204**.

[0101] After rendering of advertisements **306-1**, audio **308-1** is played. A second advertisement **306-2** is then played in between audio **308-1** and audio **308-2**. Advertising **306-2** may be correlated to subject matter in either audio **308-1** or audio **308-2** and played post-roll or pre-roll.

[0102] FIG. **4**A depicts a video example of rendering advertisements in parallel according to embodiments of the present invention. As shown, advertisements **404** are rendered in parallel to video **402**. As the video is being displayed, advertisements **404** may be rendered. In one embodiment, advertisements **404** may be displayed along with video **402**. In one embodiment, each advertisement **404-1-404-5** may be a different advertisement. However, it will be understood that advertisements may persist across multiple frames of video **402**. For example, during the playing of video **402-1** to **402-3**, subject matter may be correlated to an advertisement. This advertisement may be displayed in advertisements **404-1** to **404-3**.

[0103] At another time during the playing of video **402-4** and **402-5**, a different advertisement may be correlated to subject matter in the video. Thus, a different advertisement is displayed for advertisements **404-4** and **404-5**.

[0104] The advertisements displayed may be of a form that does not interfere with rendering of the video. For example, if the video includes audio, then a text advertisement may be shown. This does not interfere with the playing of audio of the video. Also, the advertisement may include video without sound such that it does not interfere with the audio of the video.

[0105] FIG. **4**B depicts an audio example of rendering advertisements in parallel according to embodiments of the present invention. As audio **406** is rendered, advertisements **408** are rendered. In one embodiment, advertisements **408** are rendered in form that does not interfere with the audio. For example, the advertisements may be rendered as video without audio or text.

[0106] Advertisements **408** may be associated with subject matter in the audio for audio **406**. As audio is being rendered, advertisements **408** may be rendered in parallel.

Serving Ads

[0107] FIG. **5** depicts a system **500** for initiating serving of advertisements according to one embodiment of the present invention. A content server **504** is used to serve content to user device **104**. For example, content server **504** may receive content from content owners **108** and send it to user device **104**.

[0108] In one embodiment, content server **504** may serve a web page to user device **104** for display in display **110**. When the rich media content is served to user device **104**, content server **504** contacts engine **102** to notify engine **102**

that content is being served. In one embodiment, content server **504** includes software code that enables it to connect with engine **102**. For example, software code may be embedded in a web page. Also, the code may be integrated in the rich media content being served. It will be understood that there may not be a need to integrate any code and it depends on the functions of the content server **504** being used.

[**0109**] Content server **504** contacts ad server **206** with information needed by engine **102** to serve advertisements with rich media content. For example, the information may include an identifier for the content being served, other content-related data, a time of the content as it is being played, user interaction data, an IP address of user device **104**, any other routing information, and any other data relating to user device **104**, content server **504**, etc.

[**0110**] An identifier for the content being served may be converted into a content ID that is recognized by ad server **206**. With a content ID, correlation engine **202** can then determine advertisements to correlate to the rich media content. For example, different advertisements may be correlated to content associated with the content ID previously. The correlating may have been performed when a content provider uploaded the content to engine **102**. The advertisements that are correlated to the rich media content are then stored with the content ID. In other embodiments, the correlation may be performed dynamically as content is being displayed at user device **104**.

[**0111**] A user information determiner **508** may be used to determine information about the user. As discussed above, the user information may be any information associated with the user and may be used to correlate advertisements to the content. In one embodiment, user information determiner **508** may interact with user device **104** to determine the user information. For example, user device **104** may send a cookie to information determiner **508**.

[**0112**] A geo-location server **502** may be used to determine any location information that might be useful in serving advertisements. For example, an IP address may be converted into a physical geographical location of the user for user device **104**. This may be used to serve advertisements in a more relevant fashion, such as different ads are served based on the location, different languages are used, etc.

[**0113**] Correlation engine **202** may use any of the above information to perform the correlation. Once the advertisements are determined by correlation engine **202**, rendering formatter **204** determines how to render the content. Preferences described above may be used to determine how to render the content and advertisement.

[**0114**] Ad server **206** may then use the geographic location or IP address to serve the advertisement to user device **104**.

[**0115**] In one example, if BMW has purchased/associated a keyword "automobile" for their advertisement, and rich media content includes the keyword "automobile" as it is rendered, the BMW ad may be served. It may be served and rendered in parallel, near, around, in, or on the rich media content as the keyword "automobile" is being spoken. In another example, the BMW ad may be rendered serially before and after the keyword "automobile" is played.

[**0116**] In another example, audio ads may be serially matched with pod casts (audio programs from the Internet) where the advertisements are placed in front, in the middle, or after the audio content. In addition, text or video ads may be displayed in parallel with the audio.

[**0117**] A user can interact with the advertisements served. For example, the user may launch events from user device **104**. In one embodiment, a user may select the advertisement and launch another window with a website of the advertiser's choosing. In this example, when a user interacts with the advertisement, software code embedded (if there is any) in the advertisement sends relevant data to ad server **206**. Ad server **206** can then contact a billing and click-through server and update billing data to recognize that the advertisement has been selected. The data relating to the user interaction with the advertisements may be fed back to correlation engine **202** to further optimize matching of advertisements with rich media content.

[**0118**] Other features may also be provided as a user interacts with the advertisements served. FIG. **6** shows an example interface **600** according to one embodiment. Rich media content may be displayed in media player **602**. Also, an advertisement is being rendered in section **604**.

[**0119**] The advertisement may be a video and/or an image of an advertisement. A user may also trigger actions by interacting with interface **600**. For example, the rich media content may be played in player **602**. An image of the advertisement is shown in section **604** (in other examples, a video may be playing without sound). The advertisement, however, may also be a video advertisement. Because playing two videos at once may be confusing to the user, a trigger is used to determine when to play the advertisement and/or rich media content. For example, a mouse-over feature is provided. When a mouse is moved over advertisement **604**, the advertisement may start playing and the rich media content is stopped. This allows the user to choose when to play the advertisement or rich media content. If the user is interested in an advertisement that is shown, the user can choose to view the advertisement. When the user is finished (e.g., the mouse is moved away from section **604**) or the advertisement is finished playing, the rich media content may begin playing again. Other ways of triggering playing of the advertisement may also be appreciated, such as the selection on a touchscreen, input of a shortcut key, double or single selection of window **604**, etc.

[**0120**] The advertisement may also include widgets **606** and **608** that allow additional features to be invoked. For example, widgets **606** and **608** provide additional information for the advertisement. The additional information may be provided while the rich media content is playing. This feature may allow the user to view more information about the advertisement without interrupting the rich media content. Also, the rich media content may be paused.

[**0121**] Widget **604**, when triggered, may show additional information in a pop-up window **610**. For example, a user may move the mouse pointer over widget **606**, which then displays the pop up window **610**. In this case, more information is shown for the advertisement. If the user moved the mouse over widget **608**, a window may pop up allowing the user to get more information. For example, the user may be able to enter an email address where more information about the advertisement can be sent. Other ways of triggering

widgets **606** and **608** may also be appreciated, such as the selection on a touchscreen, input of a shortcut key, the double or single selection of widgets **606** and **608**, etc.

[**0122**] Other interactive features may also be provided. For example, coupons and maps may be provided. Coupons for the advertisement may be displayed with the advertisement. A user may select the coupon and be sent to a web page that allow redemption. Also, selecting the coupon may send the user the coupon at a user's email address, etc. Including a coupon provides incentive for a user to either view the ad or actually take action to purchase a product shown in the ad.

[**0123**] Also, a map may also be included. The map may show local businesses that are selling products depicted in the advertisement. Also, links to the local businesses may be provided. If user's select the links, fees may be charged to the local businesses by an owner of system **100**. The maps show an easy way for a user to purchase the product in the ad.

[**0124**] Further, other services may be provided. For example, a link to buy tickets for movies may be provided when a movie is being watched.

[**0125**] Although the invention has been described with respect to specific embodiments thereof, these embodiments are merely illustrative, and not restrictive of the invention. For example, ads can be presented in various types of association with rich media content. If a first device is used to present the rich media content, a separate second device can be used to display the rich media content.

[**0126**] Any suitable programming language can be used to implement the routines of embodiments of the present invention including C, C++, Java, assembly language, etc. Different programming techniques can be employed such as procedural or object oriented. The routines can execute on a single processing device or multiple processors. Although the steps, operations, or computations may be presented in a specific order, this order may be changed in different embodiments. In some embodiments, multiple steps shown as sequential in this specification can be performed at the same time. The sequence of operations described herein can be interrupted, suspended, or otherwise controlled by another process, such as an operating system, kernel, etc. The routines can operate in an operating system environment or as stand-alone routines occupying all, or a substantial part, of the system processing. Functions can be performed in hardware, software, or a combination of both. Unless otherwise stated, functions may also be performed manually, in whole or in part.

[**0127**] In the description herein, numerous specific details are provided, such as examples of components and/or methods, to provide a thorough understanding of embodiments of the present invention. One skilled in the relevant art will recognize, however, that an embodiment of the invention can be practiced without one or more of the specific details, or with other apparatus, systems, assemblies, methods, components, materials, parts, and/or the like. In other instances, well-known structures, materials, or operations are not specifically shown or described in detail to avoid obscuring aspects of embodiments of the present invention.

[**0128**] A "computer-readable medium" for purposes of embodiments of the present invention may be any medium that can contain, store, communicate, propagate, or transport the program for use by or in connection with the instruction execution system, apparatus, system or device. The computer readable medium can be, by way of example only but not by limitation, an electronic, magnetic, optical, electromagnetic, infrared, or semiconductor system, apparatus, system, device, propagation medium, or computer memory.

[**0129**] Embodiments of the present invention can be implemented in the form of control logic in software or hardware or a combination of both. The control logic may be stored in an information storage medium, such as a computer-readable medium, as a plurality of instructions adapted to direct an information processing device to perform a set of steps disclosed in embodiments of the present invention. Based on the disclosure and teachings provided herein, a person of ordinary skill in the art will appreciate other ways and/or methods to implement the present invention.

[**0130**] A "processor" or "process" includes any human, hardware and/or software system, mechanism or component that processes data, signals or other information. A processor can include a system with a general-purpose central processing unit, multiple processing units, dedicated circuitry for achieving functionality, or other systems. Processing need not be limited to a geographic location, or have temporal limitations. For example, a processor can perform its functions in "real time,""offline," in a "batch mode," etc. Portions of processing can be performed at different times and at different locations, by different (or the same) processing systems.

[**0131**] Reference throughout this specification to "one embodiment", "an embodiment", or "a specific embodiment" means that a particular feature, structure, or characteristic described in connection with the embodiment is included in at least one embodiment of the present invention and not necessarily in all embodiments. Thus, respective appearances of the phrases "in one embodiment", "in an embodiment", or "in a specific embodiment" in various places throughout this specification are not necessarily referring to the same embodiment. Furthermore, the particular features, structures, or characteristics of any specific embodiment of the present invention may be combined in any suitable manner with one or more other embodiments. It is to be understood that other variations and modifications of the embodiments of the present invention described and illustrated herein are possible in light of the teachings herein and are to be considered as part of the spirit and scope of the present invention.

[**0132**] Embodiments of the invention may be implemented by using a programmed general purpose digital computer, by using application specific integrated circuits, programmable logic devices, field programmable gate arrays, optical, chemical, biological, quantum or nanoengineered systems, components and mechanisms may be used. In general, the functions of embodiments of the present invention can be achieved by any means as is known in the art. Distributed, or networked systems, components and circuits can be used. Communication, or transfer, of data may be wired, wireless, or by any other means.

[**0133**] It will also be appreciated that one or more of the elements depicted in the drawings/figures can also be implemented in a more separated or integrated manner, or even removed or rendered as inoperable in certain cases, as is

useful in accordance with a particular application. It is also within the spirit and scope of the present invention to implement a program or code that can be stored in a machine-readable medium to permit a computer to perform any of the methods described above.

[0134] Additionally, any signal arrows in the drawings/Figures should be considered only as exemplary, and not limiting, unless otherwise specifically noted. Furthermore, the term "or" as used herein is generally intended to mean "and/or" unless otherwise indicated. Combinations of components or steps will also be considered as being noted, where terminology is foreseen as rendering the ability to separate or combine is unclear.

[0135] As used in the description herein and throughout the claims that follow, "a", "an" and "the" includes plural references unless the context clearly dictates otherwise. Also, as used in the description herein and throughout the claims that follow, the meaning of "in" includes "in" and "on" unless the context clearly dictates otherwise.

[0136] The foregoing description of illustrated embodiments of the present invention, including what is described in the Abstract, is not intended to be exhaustive or to limit the invention to the precise forms disclosed herein. While specific embodiments of, and examples for, the invention are described herein for illustrative purposes only, various equivalent modifications are possible within the spirit and scope of the present invention, as those skilled in the relevant art will recognize and appreciate. As indicated, these modifications may be made to the present invention in light of the foregoing description of illustrated embodiments of the present invention and are to be included within the spirit and scope of the present invention.

[0137] Thus, while the present invention has been described herein with reference to particular embodiments thereof, a latitude of modification, various changes and substitutions are intended in the foregoing disclosures, and it will be appreciated that in some instances some features of embodiments of the invention will be employed without a corresponding use of other features without departing from the scope and spirit of the invention as set forth. Therefore, many modifications may be made to adapt a particular situation or material to the essential scope and spirit of the present invention. It is intended that the invention not be limited to the particular terms used in following claims and/or to the particular embodiment disclosed as the best mode contemplated for carrying out this invention, but that the invention will include any and all embodiments and equivalents falling within the scope of the appended claims.

We claim:

1. A method for serving advertisements, the method comprising:

determining when an advertisement correlates to subject matter associated with a portion of rich media content;

determining rendering preferences associated with the advertisement; and

serving the advertisement to a device, the advertisement being served such that it can be rendered relative to a time the portion of the rich media content is being played on the device based on the rendering preferences.

2. The method of claim 1, wherein serving the advertisement comprises serving the advertisement such that the advertisement is rendered on the device serially with the portion of rich media content.

3. The method of claim 2, wherein serially comprises before, after, or in the middle of the playing of the portion of the rich media content.

4. The method of claim 1, wherein serving the advertisement comprises serving the advertisement such that the advertisement is rendered on the device in parallel with the portion of rich media content.

5. The method of claim 1, wherein serving the advertisement comprises serving the advertisement such that the advertisement is injected into or laid on top of portion of rich media content.

6. The method of claim 1, wherein serving the advertisement comprises causing rendering of the advertisement on the device.

7. The method of claim 1, wherein the advertisement is a different form of rich media content than the portion of the rich media content.

8. The method of claim 1, wherein the rendering preferences indicate a position to display the advertisement relative to the portion of the rich media content.

9. The method of claim 1, wherein the rendering preferences are specified by a user of the user device, a content owner of the rich media content and/or the advertiser of the advertisement.

10. The method of claim 1, wherein the advertisement includes a coupon or map related to the advertisement.

11. The method of claim 1, wherein serving the advertisement comprises causing storing the advertisement at the device.

12. The method of claim 1, wherein determining when an advertisement correlates to subject matter associated with a portion of rich media content comprises using correlation recognition detection techniques to determine that the advertisement correlates the subject matter.

13. The method of claim 1, wherein determining when an advertisement correlates to subject matter associated with a portion of rich media content comprises time aligning the advertisement to correlate the advertisement to the subject matter to maximize a criteria.

14. A method for rendering advertisements, the method comprising:

playing rich media content on a device;

receiving an advertisement that correlates to subject matter associated with a portion of the rich media content being played;

determining rendering preferences associated with the advertisement; and

rendering the advertisement, the advertisement being rendered such that it can be rendered relative to a time the portion of the rich media content is being played on the device based on the rendering preferences.

15. The method of claim 14, wherein the advertisement is rendered on a display of the device.

16. The method of claim 14, wherein the advertisement is rendered through a speaker of the device.

17. The method of claim 16, wherein rendering the advertisement comprises rendering the advertisement such that the advertisement is rendered serially with the portion of rich media content.

18. The method of claim 17, wherein serially comprises before or after the playing of the portion of the rich media content.

19. The method of claim 14, wherein the advertisement is rendered with audio or visual cues that alert the user of a new and/or changing ad placement.

20. The method of claim 14, wherein rendering the advertisement comprises rendering the advertisement such that the advertisement is rendered on the device in parallel with the portion of rich media content.

21. The method of claim 14, wherein rendering the advertisement comprises rendering the advertisement such that the advertisement is injected into the portion of rich media content.

22. The method of claim 14, further comprising:

detecting an event associated with the advertisement; and

performing an action for the event.

23. The method of claim 22, wherein the action comprises:

stopping the playing of the rich media content; and

starting playing of the advertisement.

24. The method of claim 23, where the action comprises displaying additional information for the advertisement.

25. The method of claim 14, further comprising receiving additional information for the user.

26. The method of claim 14, wherein determining when an advertisement correlates to subject matter associated with a portion of rich media content comprises using correlation recognition detection techniques to determine that the advertisement correlates the subject matter.

27. The method of claim 14, wherein determining when an advertisement correlates to subject matter associated with a portion of rich media content comprises time aligning the advertisement to correlate the advertisement to the subject matter to maximize a criteria.

28. An apparatus configured to serve advertisements, the apparatus comprising:

a correlation engine configured to determine when an advertisement correlates to subject matter associated with a portion of rich media content;

a rendering formatter configured to determine rendering preferences associated with the advertisement; and

an ad server configured to serve the advertisement to a device, the advertisement being served such that it can be rendered relative to a time the portion of the rich media content is being played on the device based on the rendering preferences.

29. The apparatus of claim 28, wherein the ad server is configured to serve the advertisement such that the advertisement is rendered on the device serially with the portion of rich media content.

30. The apparatus of claim 28, wherein the ad server is configured to serve the advertisement such that the advertisement is rendered on the device in parallel with the portion of rich media content.

31. The apparatus of claim 28, wherein the ad server is configured to serve the advertisement such that the advertisement is injected into the portion of rich media content.

32. The apparatus of claim 28, wherein the correlation engine is configured to correlate the advertisement to use correlation recognition detection techniques to determine that the advertisement correlates the subject matter.

33. The apparatus of claim 28, wherein the correlation engine is configured to time align the advertisement to correlate the advertisement to the subject matter to maximize a criteria.

34. A method for correlating advertisements to rich media content, the method comprising:

recognizing information for the rich media content;

determining a plurality of advertisements to correlate to the recognized information; and

selecting an advertisement from the plurality of advertisements to associate with a portion of the rich media content based on one or more criteria.

35. The method of claim 34, wherein determining the plurality of advertisements to correlate comprises:

determining match information associated with an advertisement in the plurality of advertisements;

determining if the match information is found in the rich media content; and

correlating the advertisement with the rich media content if the match information is found in the rich media content.

36. The method of claim 34, wherein selecting the advertisement comprises:

determining scores for the one or more criteria for each of the plurality of advertisements; and

selecting the advertisement based on the determined scores.

37. The method of claim 36, wherein the one or more criteria comprises a bid price for the advertisement, wherein an amount of the bid affects the score given to the advertisement.

38. The method of claim 37, wherein selecting the advertisement is performed to maximize revenue from bids associated with the plurality of advertisements.

39. The method of claim 36, wherein the one or more criteria comprise lattice probability, match concentration, match position, geo-location, demographic, behavioral, and psychographic profile, and/or past performance.

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