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(54) **AUTOMATED SCREENING OF CONTENT
BASED ON INTELLECTUAL PROPERTY
RIGHTS**

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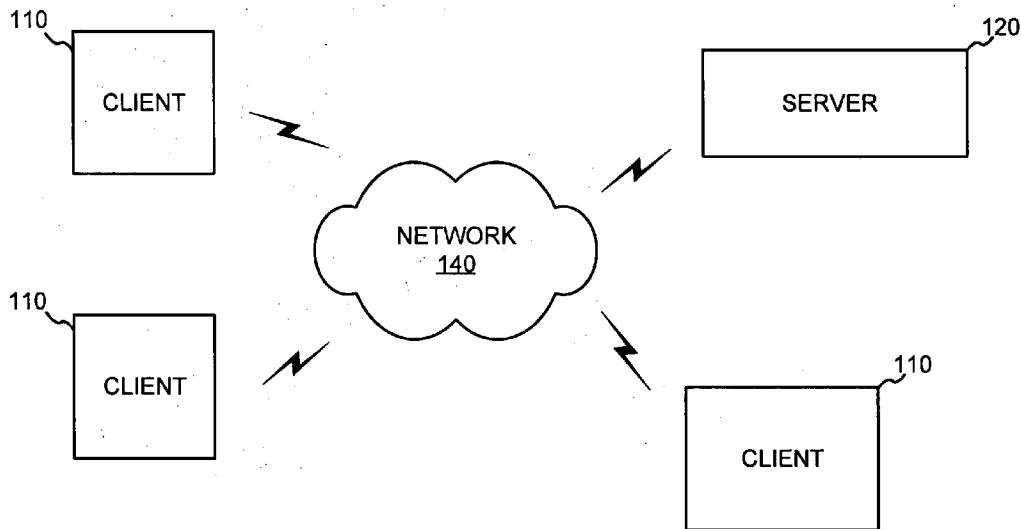
(57) **ABSTRACT**

Systems and methods automatically scan content, such as advertisements, for a list of terms and/or phrases that may not be allowed in the content. In one implementation, the terms and/or phrases include trademarks. In this implementation, incoming advertisements may be automatically scanned for the presence of trademarks.

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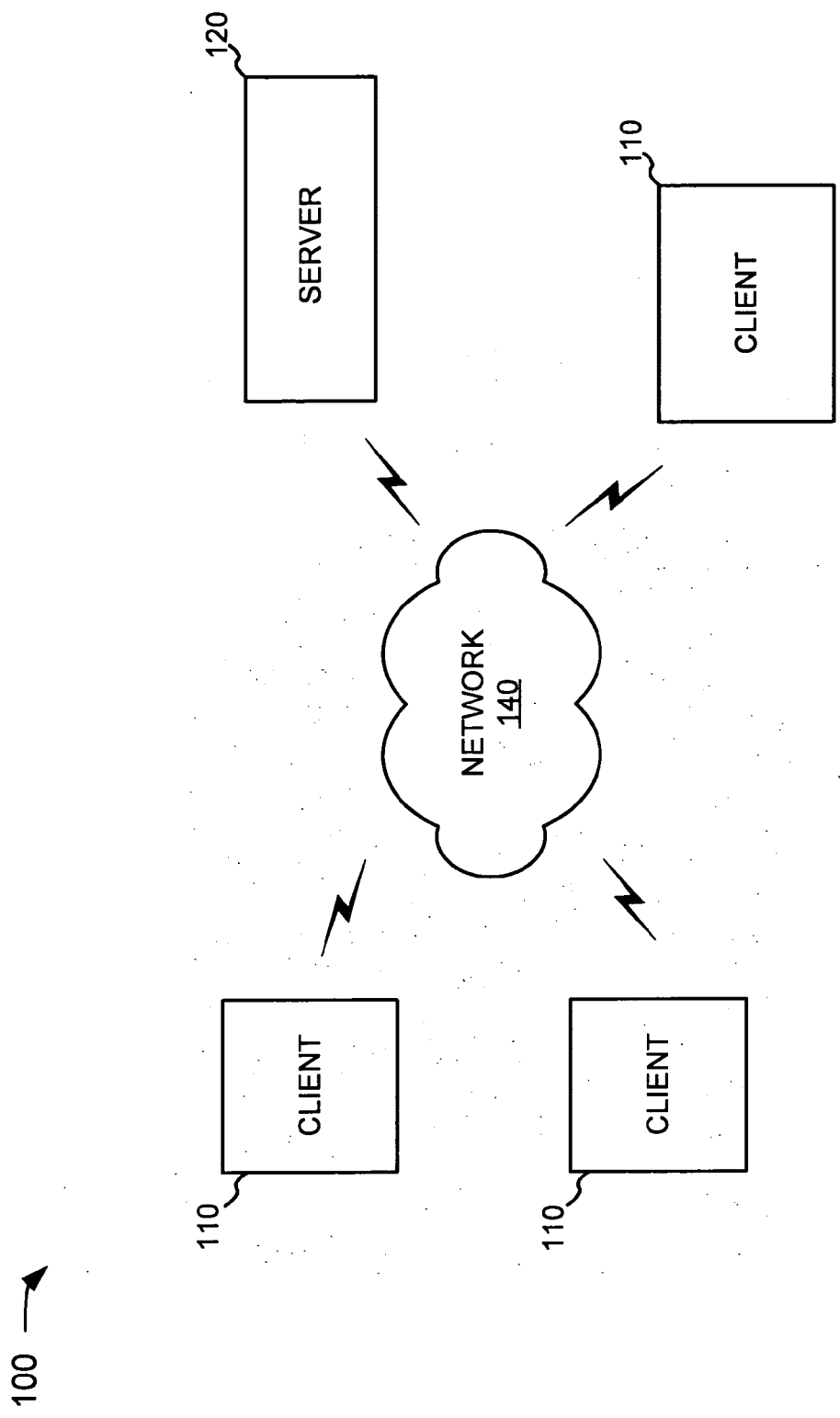


FIG. 1

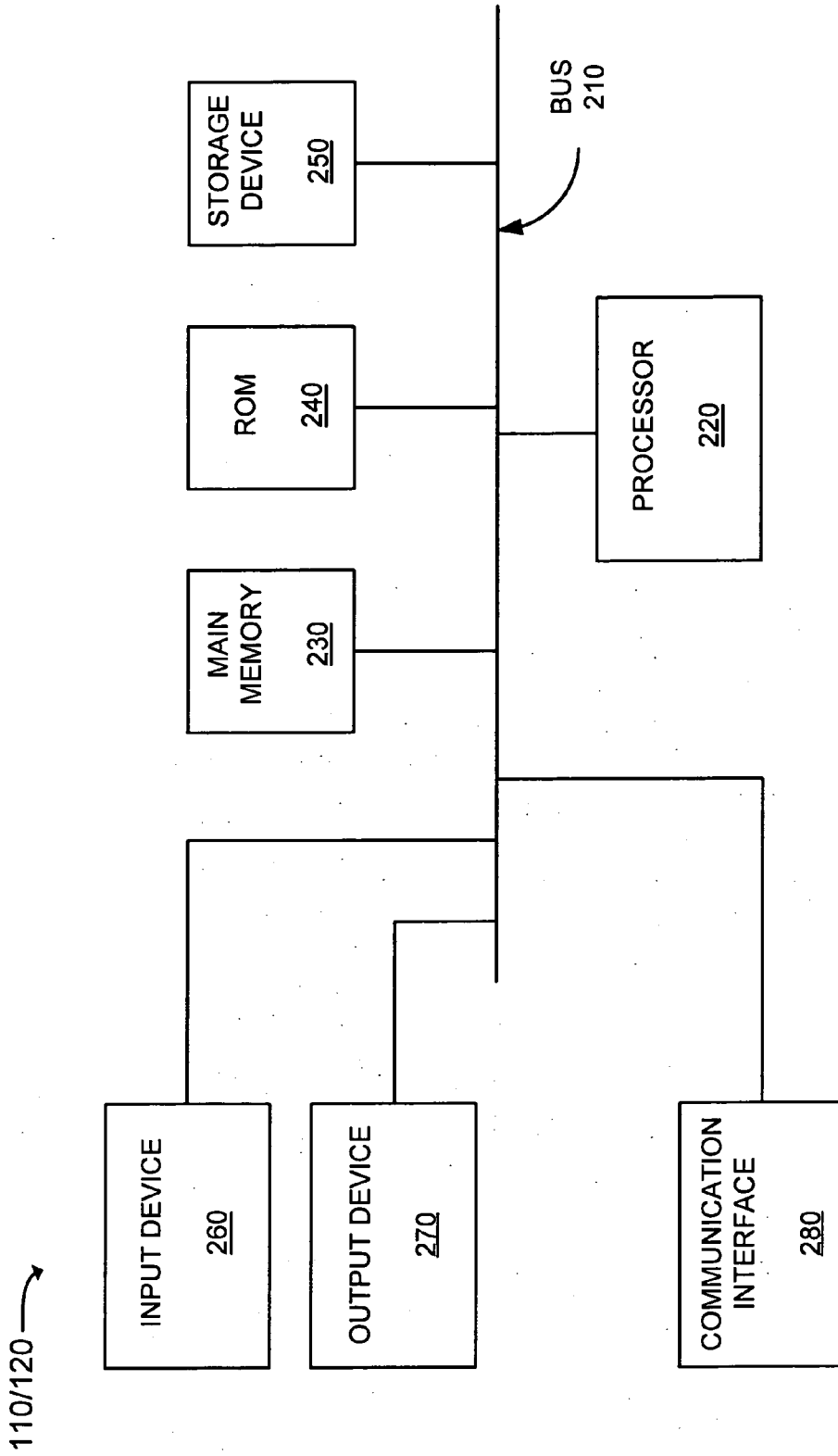


FIG. 2

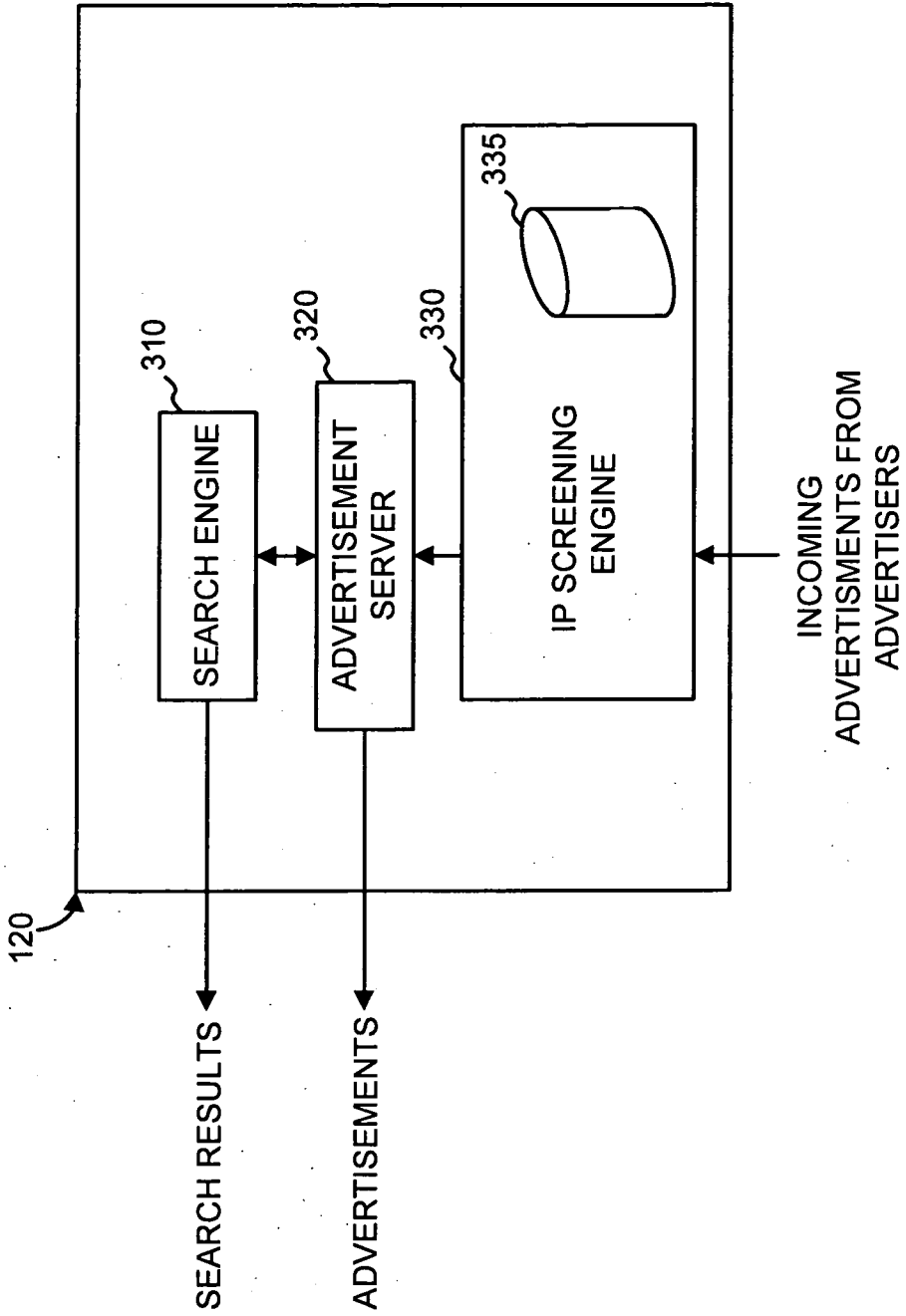


FIG. 3

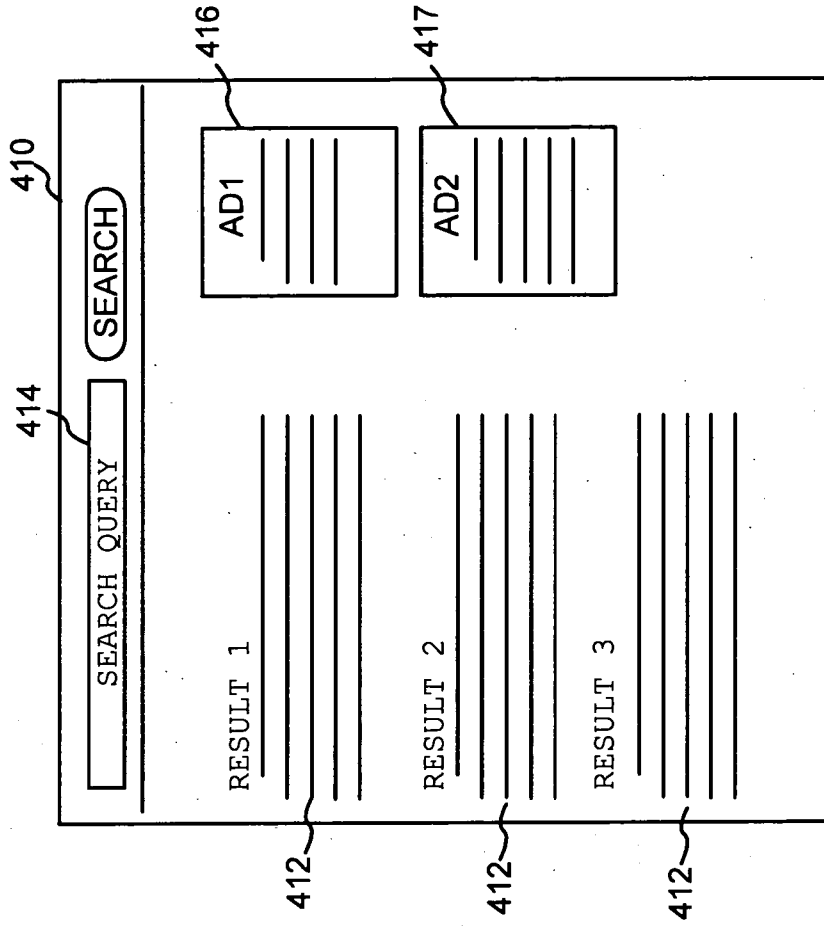


FIG. 4A

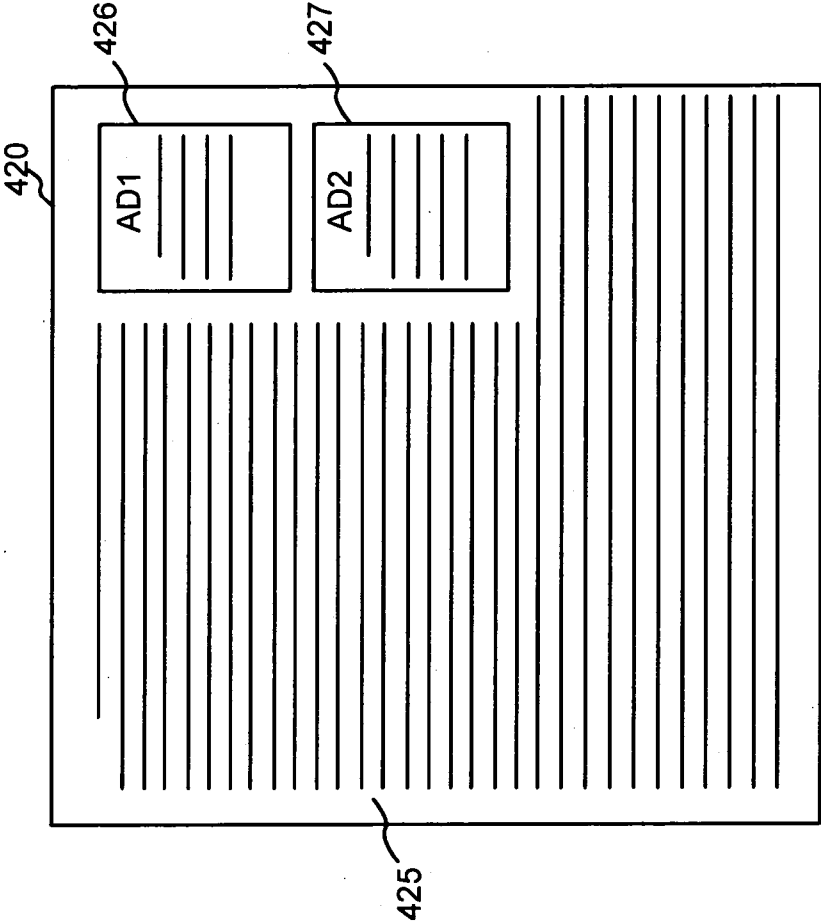


FIG. 4B

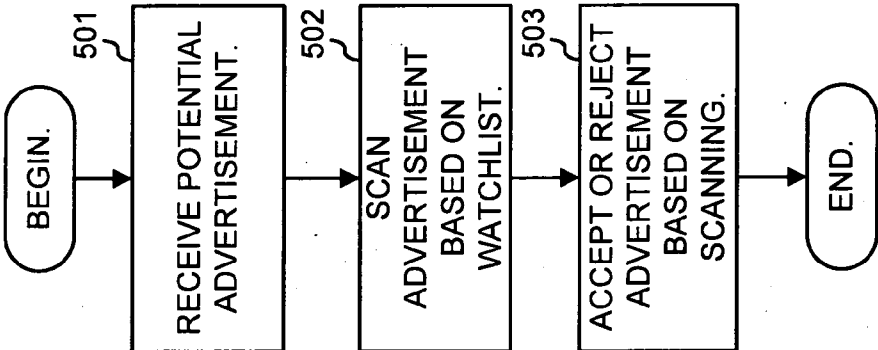


FIG. 5

600 ↗

ADVERTISEMENT TEXT: High quality jewelry at
wholesale prices. 610 ↘

TRIGGER TEXT: jewelry ~ 620

LINK: www.hqjawp.com ~ 630

ANCHOR TEXT: Jewelry ~ 640

600 ↗

Jewelry
High quality
jewelry at
wholesale prices.
www.hqjawp.com

FIG. 6A

FIG. 6B

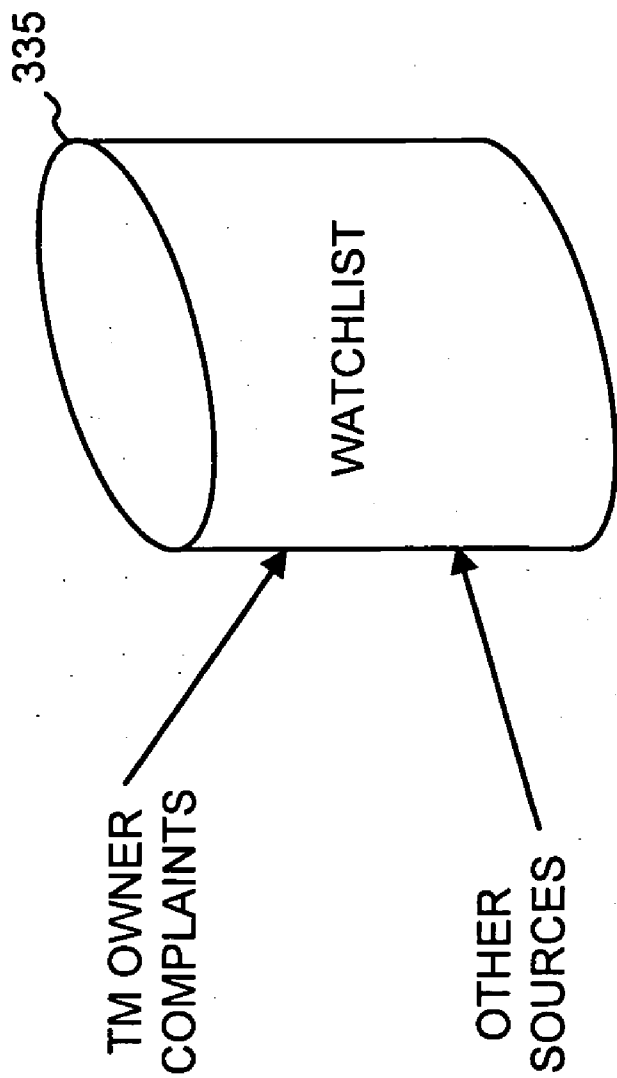


FIG. 7

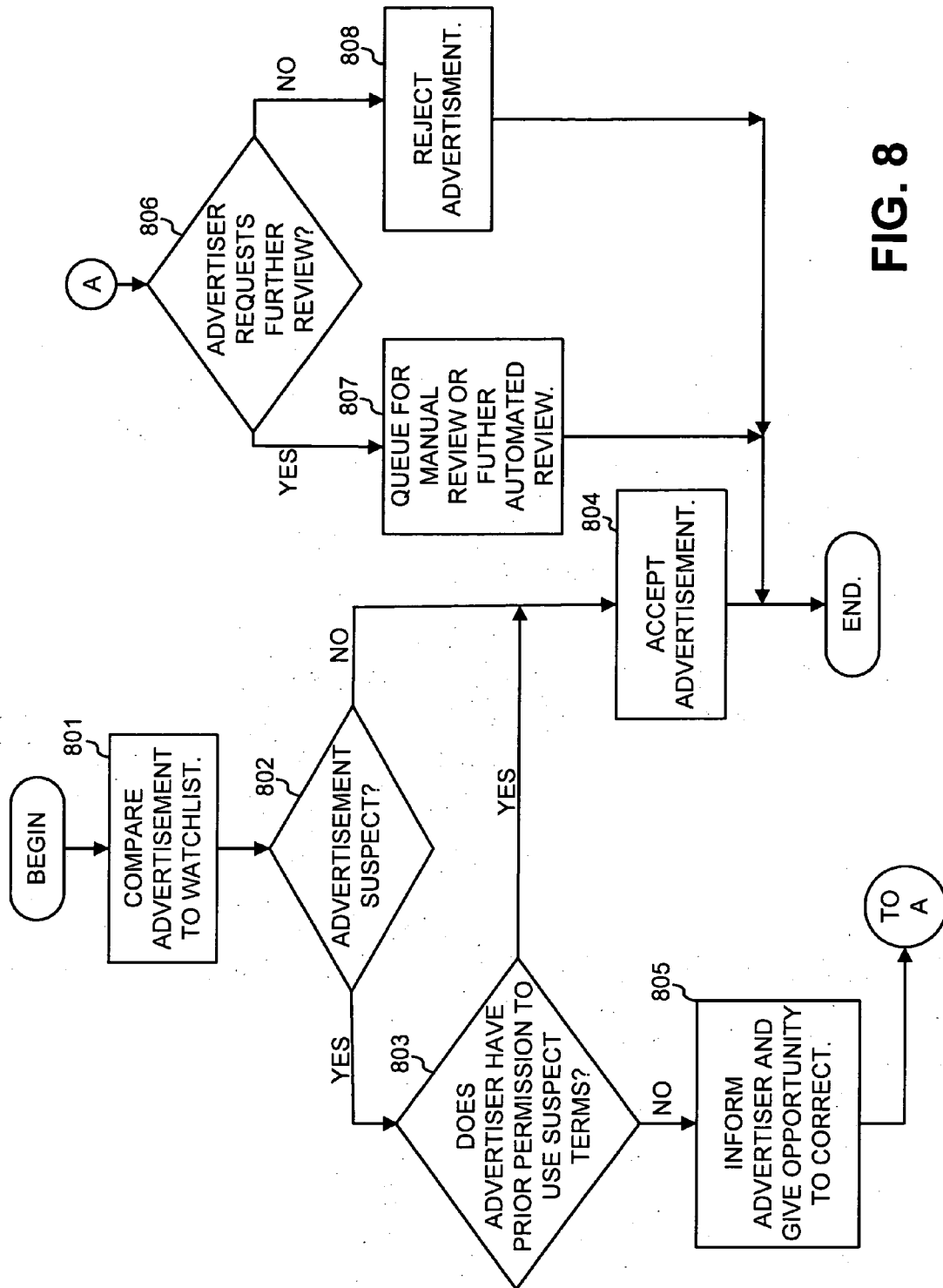


FIG. 8

AUTOMATED SCREENING OF CONTENT BASED ON INTELLECTUAL PROPERTY RIGHTS

BACKGROUND

[0001] In the ever changing online world, content can be ephemeral. One group to which this can pose problems is intellectual property rights owners. Certain intellectual property rights, such as trademark and copyright rights, may be alleged to be infringed by a particular web site, posting, or advertisement for a short or undefined period of time. For example, a trademark may be alleged to be infringed by an advertisement that only appears to some visitors of a particular site.

[0002] For a rights owner, policing these rights can be a difficult task. In addition to the non-trivial task of locating the potentially infringing content, the intellectual property rights owner can face the additional burden of convincing the web site owner to remove the content in a timely manner. From the standpoint of the publishers pages that infringe intellectual property rights can arguably expose the publisher to legal liability as well as hurt customer relations.

[0003] Accordingly, it would generally be desirable to have systems for addressing problematic content.

SUMMARY

[0004] One aspect is directed to a machine-implemented method that includes receiving content that is to be provided to users and scanning the content for trademarked terms. The method further includes determining whether to allow the content to be provided based on the scanning.

[0005] Another aspect is directed to a machine-implemented method that includes receiving an advertisement from an advertiser that is to be provided to end-users and scanning the advertisement for terms or phrases in a list. The method further includes determining whether to accept the advertisement based on the scanning.

[0006] Yet another aspect is directed to a system that includes logic to screen an advertisement received from an advertiser for violations by screening for trademarked terms or phrases occurring in text of the advertisement that the advertiser designates as the text that is to be displayed to end-users. The system further includes logic to transmit the advertisement to end-users based on the advertisement not including violations.

BRIEF DESCRIPTION OF THE DRAWINGS

[0007] The accompanying drawings, which are incorporated in and constitute a part of this specification, illustrate an embodiment of the invention and, together with the description, explain the invention. In the drawings,

[0008] **FIG. 1** is an exemplary diagram of a system in which concepts consistent with the principles of the invention may be implemented;

[0009] **FIG. 2** is an exemplary diagram of a client or server shown in **FIG. 1**;

[0010] **FIG. 3** is a diagram illustrating an exemplary embodiment in which the server shown in **FIGS. 1 and 2** implements a search engine, an advertisement server, and an IP screening engine;

[0011] **FIG. 4A** is a diagram illustrating an exemplary web page that may include advertisements provided to clients;

[0012] **FIG. 4B** is a diagram illustrating another exemplary web page that may include advertisements;

[0013] **FIG. 5** is a flow chart illustrating exemplary operations performed by the IP screening engine shown in **FIG. 3**;

[0014] **FIGS. 6A and 6B** are diagrams illustrating an exemplary advertisement submitted by an advertiser;

[0015] **FIG. 7** is a diagram illustrating the watchlist shown in **FIG. 3**; and

[0016] **FIG. 8** is a flow chart illustrating additional exemplary operations for screening advertisements.

DETAILED DESCRIPTION

[0017] The following detailed description of the invention refers to the accompanying drawings. The detailed description does not limit the invention.

Overview

[0018] Techniques are described herein that provide for automated screening of content. In one implementation, advertisements that are submitted to a content host are automatically screened for potential intellectual property rights violations before the advertisements are provided to the end-user. For example, the text of the advertisements may be compared to a watchlist of known trademarked terms/phrases to determine if the advertisement potentially infringes any of the known terms or phrases.

System Description

[0019] **FIG. 1** is an exemplary diagram of a system **100** in which concepts consistent with the principles of the invention may be implemented. System **100** may include multiple clients **110** connected to a server **120** via a network **140**. Network **140** may include a local area network (LAN), a wide area network (WAN), a telephone network, such as the Public Switched Telephone Network (PSTN), an intranet, the Internet, or a combination of networks. Three clients **110** and one server **120** have been illustrated as connected to network **140** for simplicity. In practice, there may be more clients and/or servers. Also, in some instances, a client may perform one or more functions of a server and a server may perform one or more functions of a client.

[0020] A client **110** may include a device such as a wireless telephone, a personal computer, a personal digital assistant (PDA), a lap top, or another type of computation or communication device, a thread or process running on one of these devices, and/or an object executable by one of these devices. Server **120** may include a server device that processes, searches, and/or maintains documents and images in a manner consistent with the principles of the invention. Clients **110** and server **120** may connect to network **140** via wired, wireless, or optical connections.

[0021] Server **120**, in one implementation, may include a search engine that receives search queries from clients **110** and returns links to results relevant to the search queries to clients **110**. Server **120** may also return advertisements with

the search query results. For example, third parties may contract with the operator of server 120 to display their advertisements when their advertisements are relevant to a search query.

Exemplary Client/Server Architecture

[0022] FIG. 2 is an exemplary diagram of a client 110 or server 120. Client/server 110/120 may include a bus 210, a processor 220, a main memory 230, a read only memory (ROM) 240, a storage device 250, an input device 260, an output device 270, and a communication interface 280. Bus 210 may include conductors that permit communication among the components of client/server 110/120.

[0023] Processor 220 may include conventional processors, microprocessors, or processing logic that interpret and execute instructions. Main memory 230 may include a random access memory (RAM) or another type of dynamic storage device that stores information and instructions for execution by processor 220. ROM 240 may include a conventional ROM device or another type of static storage device that stores static information and instructions for use by processor 220. Storage device 250 may include a magnetic and/or optical recording medium and its corresponding drive.

[0024] Input device 260 may include one or more conventional mechanisms that permit a user to input information to client/server 110/120, such as a keyboard, a mouse, a pen, voice recognition and/or biometric mechanisms, etc. Output device 270 may include one or more conventional mechanisms that output information to the user, including a display, a printer, a speaker, etc. Communication interface 280 may include any transceiver-like mechanism that enables client/server 110/120 to communicate with other devices and/or systems. For example, communication interface 280 may include mechanisms for communicating with another device or system via a network, such as network 140.

[0025] Functions implemented by client/server 110/120 may be stored as software instructions in a computer-readable medium, such as memory 230. A computer-readable medium may be defined as one or more physical or logical memory devices and/or carrier waves. The software instructions may be read into memory 230 from another computer-readable medium, such as data storage device 250, or from another device via communication interface 280. The software instructions contained in memory 230 may cause processor 220 to perform processes that will be described later. Alternatively, hardwired circuitry or other logic may be used in place of, or in combination with, software instructions to implement processes consistent with the invention. Thus, implementations consistent with the principles of the invention are not limited to any specific combination of hardware circuitry and software. Additionally, multiple computing devices may function together to implement the functionality of a single server 120.

Server 120

[0026] FIG. 3 is a diagram illustrating an exemplary embodiment in which server 120 implements a search engine 310, an advertisement server 320, and an IP screening engine 330. Although server 120 is shown as a single device in FIG. 3, one of ordinary skill in the art will

recognize that server 120 could be implemented as one or more distributed computing devices. Further, search engine 310, advertisement server 320, and IP screening engine 330 could be implemented on a single computing device or on separate devices. In some implementations, certain functions of one or more of search engine 310, advertisement server 320, and IP screening engine 330 could be combined.

[0027] Search engine 310 may generally be designed to return links to web pages in which a user may be interested. Search engine 310 may base its determination of the user's interest on a search query entered by the user. Search engine 310 may locate results relevant to the search query by matching the terms in the search query to a corpus of pre-stored documents, such as web pages. Documents that contain the user's search terms are "hits" and may be returned to the user as links.

[0028] Advertisement server 320 may generate advertisements that are displayed to the users. The advertisements may be transmitted with the search results from search engine 310 or, in some implementations, may be displayed in web pages hosted by third parties. Exemplary web pages, including advertisements served by advertisement server 320, are illustrated in FIGS. 4A and 4B.

[0029] FIG. 4A is a diagram illustrating an exemplary web page 410 that may be provided by search engine 310 and/or advertisement server 320 to clients 110. In this example, web page 410 is a web page that displays results 412 that relate to a search query 414 submitted by one of clients 110. Web page 410 may additionally display advertisements, such as advertisements 416 and 417, which may be text and/or graphical advertisements that were determined by server 120 to be relevant to results 412 and/or search query 414. Although shown in this figure as separate, the advertisements 416 and 417 need not be separated from results 412.

[0030] In some implementations, advertisements 416 and 417 may have been selected by advertisement server 320 for display from a set of advertisements that were submitted by third-parties (advertisers). The advertisers may, for instance, provide the text of their advertisements as well as a list of terms (called keywords or trigger terms herein) that the advertiser would like to use to trigger the display of their advertisement. When a user enters a search query that includes the trigger terms, advertisement server 320 may provide the advertisement to the user.

[0031] FIG. 4B is a diagram illustrating an exemplary web page 420 that may include advertisements provided by advertisement server 320. In this example, web page 420 contains content 425 and one or more advertisements 426 and 427. Web page 420 may generally be hosted by a party distinct from the party that provides advertisements 426 and 427. For example, web page 420 may be a web page from a web site targeted to auto enthusiasts. Advertisements 426 and 427 may be advertisements selected by and displayed on the web page by an entity distinct from the entity that hosts the web site, such as by advertisement server 320.

[0032] The foregoing represent only two methods for displaying advertisements. More generally, advertisements may be targeted to a user through a variety of mechanisms.

[0033] As discussed above, advertisements from advertisement server 320 may be submitted by third-party adver-

tisers. Some advertisers may, either intentionally or inadvertently, submit advertisements that in some way allegedly violate intellectual property rights of another party or violate policies expressed by the content host controlling advertisement server 320. IP screening engine 330 may assist advertisement server 320 by screening advertisements for such violations. IP screening engine 330 may base its screening on a “watchlist” of terms/phrases stored in watchlist 335, or on a variety of other possible criteria (e.g., number of problematic advertisements submitted by a particular entity over a defined time period, an external database of some sort (e.g., compilation of trademarks), list of questionable advertisers or Internet Protocol addresses, etc). The operation of IP screening engine 330 will be described in more detail below.

IP Screening Engine

[0034] FIG. 5 is a flow chart illustrating exemplary operations performed by IP screening engine 330.

[0035] Advertisements may be received from advertisers or some other source acting in conjunction with advertisers (act 501). In one implementation, the advertisers may submit advertisements through an on-line user interface that allows the advertisers to submit advertisement text that they would like to have displayed as well as trigger terms that define when the advertisement is displayed.

[0036] FIG. 6A is a diagram illustrating an exemplary advertisement 600 submitted by an advertiser. The advertiser may include advertisement text 610 and trigger text 620. In this example, the advertiser would like advertisement text 610 displayed when a user of search engine 310 includes the terms “jewelry” in their search query. The advertiser may also enter a link 630 for the advertisement and anchor text 640 that the advertiser would like displayed with link 630.

[0037] FIG. 6B is a diagram illustrating a rendered version of advertisement 600 provided to client 110. Advertisement 600 may be displayed, for example, as advertisement 416 or 417 (FIG. 4), in response to a user search query 414 that includes the term “jewelry.”

[0038] Submitted advertisements, such as advertisement 600, may be automatically scanned by IP screening engine 330 before the advertisements are provided to the end-user (act 502). The screening may detect potential intellectual property rights violations and/or violations of policies set by the content host. In one implementation, the screening may include comparing advertisement text 610 to a list of suspect terms stored in watchlist 335. The suspect terms may include, for example, trademarked terms or phrases. In other implementations, the screening may additionally include comparing trigger text 620 or other portions of the proposed advertisement to watchlist 335.

[0039] FIG. 7 is a diagram illustrating watchlist 335 in additional detail. As described above, watchlist 335 may include a list of terms/phrases that are known to define trademarked (including service marks) terms/phrases. These terms/phrases may be compiled from complaints submitted by trademark owners to the content host (i.e., the entity operating search engine 310 and/or advertisement server 320). In alternate implementations, other sources may be used to add to watchlist 335, such as information from the United States Patent and Trademark Office or other sources of known trademarks.

[0040] Referring back to FIG. 5, based on the comparison to watchlist 335, the advertisement may be accepted, rejected, or subject to further review by the content host (act 503). For example, advertisements that include terms in watchlist 335 may be rejected or subject to further review by the content host. In this manner, proposed advertisements may be automatically and efficiently evaluated by the content host.

[0041] FIG. 8 is a flow chart illustrating additional possible operations for screening and accepting/rejecting advertisements by IP screening engine 330 (acts 502 and 503). IP screening engine 330 may begin by comparing the terms in the advertisement to watchlist 335 (act 801). In one implementation, the “terms” in the advertisement can include all the terms that are actually displayed with the advertisement, such as advertisement text 610, link 630, and anchor text 640. In an alternate implementation, trigger text 620 may also be included in the comparison. If one or more of the terms in the advertisement are in watchlist 335, the advertisement may be considered to be suspect and may be subject to further evaluation (act 802). Otherwise, the advertisement may be accepted and the advertiser may be immediately informed that the advertisement has been accepted (act 804).

[0042] If the advertisement is considered suspect, however, the advertisement may be further examined. In some situations, the advertiser may have permission to use the terms from watchlist 335 (act 803). For example, the advertiser may be the owner, or an agent of the owner, of the trademarked term that matches the term(s) from watchlist 335. In this situation, the advertisement may be accepted (act 804), subject to the advertiser providing some level of assurance that they are the owner of the trademark or agent of the owner. Such assurance may be as simple as a representation made by the advertiser; alternatively, it may be more rigorous such as requiring some level of proof that the advertiser has the asserted rights.

[0043] If the advertiser does not have permission to use the term(s), the advertiser may be informed that the advertisement is suspect and may be given an opportunity to change the advertisement (act 805). If the advertiser does not wish to change the advertisement, but believes that the advertisement should nevertheless be accepted, the advertiser may be given the option of requesting further review of the advertisement (act 806). The advertisement may then be queued for further review, such as by a human operator or further automated review (act 807). For example, the advertiser may be given an opportunity to make a representation of some sort that they believe the usage is permitted by law or otherwise legal or authorized. This representation may be accepted on face value or may be subject to further verification.

[0044] It may be desirable, though not required, to correlate the level of verification to the degree to which the advertisement will be allowed to run. For example, if the representation is accepted on face value, the publisher may choose to make it easier for the rights owner to countermand that representation. The publisher may notify the rights owner that the advertiser has represented that the advertisement is permissible (this may be accompanied by contact information for the rights owner to contact the advertiser) and that the advertisement will be provisionally allowed to run. This may be accompanied by allowing the rights owner

to make a counter-representation of some sort, which would result in the advertisement being either rejected or subject to further investigation.

[0045] If the advertiser does not want further review and does not want to change the advertisement, the advertisement may be rejected (act 808).

[0046] In addition to the advertiser being the owner of the trademark or an agent for the owner, a number of possible situations may exist in which an advertiser may be entitled to use a term even though the term is present in watchlist 335. In the context of a trademark, the use may be nominative or outside the scope of the trademark. For example, although the term "apple" is a trademark of Apple Computer, Inc., a non-computer related advertisement may still use the term apple because it is outside the scope of the trademark (e.g., a fruit vendor selling apples). In any of these situations (or in any cases where advertisements are suspect for some reason), an approach like the one described above may be used. In any such situation, the proposed advertisement may be accepted, rejected, or submitted for further action (act 807) and the further action process may result in the advertisement being accepted.

[0047] In some implementations, the initial comparison of the advertisement text to the watchlist (act 801) may take into account possible exceptions to the intellectual property rights or policies. For instance, advertisements may be classified based on the products/services being advertised. If the product/service being advertised is outside the scope of the watchlist terms, such as the example of a fruit vendor selling apples and the trademark "Apple" owned by Apple Computer, Inc., the advertisement may immediately be determined to be not suspect and may be accepted.

[0048] In still other implementations, the comparison made in act 801 may take into account different comparison standards based on geographic area. For example, advertisements targeted for viewers in the United States may be evaluated using rules different than advertisements for other countries.

CONCLUSION

[0049] Systems and methods consistent with the principles of the invention may assist in automatically identifying content that potentially violates intellectual property rights or other policies relating to the content.

[0050] The foregoing description of preferred embodiments of the present invention provides illustration and description, but is not intended to be exhaustive or to limit the invention to the precise form disclosed. Modifications and variations are possible in light of the above teachings or may be acquired from practice of the invention.

[0051] For example, while series of acts have been described with regard to FIGS. 5 and 8, the order of the acts may be modified in other implementations consistent with the principles of the invention. Further, non-dependent acts may be performed in parallel.

[0052] Certain portions of the invention have been described as an "engine" that performs one or more functions. An engine may include hardware, such as an application specific integrated circuit or a field programmable gate array, software, or a combination of hardware and software.

[0053] It will be apparent to one of ordinary skill in the art that aspects of the invention, as described above, may be implemented in many different forms of software, firmware, and hardware in the implementations illustrated in the figures. The actual software code or specialized control hardware used to implement aspects consistent with the principles of the invention is not limiting of the invention. Thus, the operation and behavior of the aspects were described without reference to the specific software code—it being understood that one of ordinary skill in the art would be able to design software and control hardware to implement the aspects based on the description herein.

[0054] No element, act, or instruction used in the present application should be construed as critical or essential to the invention unless explicitly described as such. Also, as used herein, the article "a" is intended to include one or more items. Where only one item is intended, the term "one" or similar language is used. Further, the phrase "based on" is intended to mean "based, at least in part, on" unless explicitly stated otherwise.

What is claimed:

- 1. A machine-implemented method comprising:
 - receiving content that is to be provided to users;
 - scanning the content for trademarked terms; and
 - determining whether to allow the content to be provided based on the scanning.
- 2. The method of claim 1, wherein the content includes an advertisement.
- 3. The method of claim 2, wherein scanning the content comprises:
 - comparing text that is to be displayed as part of the advertisement to a predetermined list of trademarked terms and phrases.
- 4. The method of claim 3, wherein the list is determined based on trademarked terms and phrases submitted by complaining trademark owners.
- 5. The method of claim 2, wherein scanning the content comprises:
 - comparing trigger text associated with the advertisement to the predetermined list of trademarked terms and phrases.
- 6. The method of claim 5, wherein the list is determined based on trademarked terms and phrases submitted by complaining trademark owners.
- 7. The method of claim 2, wherein scanning the content comprises:
 - comparing trigger text associated with the advertisement and text that is to be displayed as part of the advertisement to a predetermined list of trademarked terms and phrases.
- 8. The method of claim 7, wherein the list is determined based on trademarked terms and phrases submitted by complaining trademark owners.
- 9. The method of claim 1, further comprising:
 - submitting the content for manual review by an operator when the determination is to not allow the content to be provided.
- 10. The method of claim 1, further comprising, when the determination is to not allow the content to be provided:

performing additional automated investigation of the content.

11. The method of claim 10, wherein the content includes advertisements received from an advertiser, the additional automated investigation including:

sending an automated message to the advertiser providing the advertiser with an opportunity to represent that the content is permitted when the determination is to not allow the content to be provided.

12. The method of claim 1, wherein determining whether to allow the content includes:

classifying the content as suspect when the scanning indicates that one or more trademarked terms are included in the content, and

providing a party associated with the content with an option to modify the content or submit the content for further review when the content is classified as suspect.

13. The method of claim 1, wherein scanning the content for trademarked terms takes into account whether a trademarked term that is in the content is outside a scope of the trademark.

14. A device comprising:

means for receiving content from a third party that is to be served to users;

means for scanning the content for trademarked terms; and

means for determining whether to allow the content or to queue the content for further review based on the scanning.

15. The device of claim 14, wherein the content includes advertisements.

16. A machine-implemented method comprising:

receiving an advertisement from an advertiser that is to be provided to end-users;

scanning the advertisement for terms or phrases in a list; and

determining whether to accept the advertisement based on the scanning.

17. The method of claim 16, wherein the list includes trademarks.

18. The method of claim 17, wherein the trademarks in the list include a plurality of trademarks that were submitted by complaining trademark owners.

19. The method of claim 16, wherein the received advertisement includes text that is to be displayed with the advertisement and trigger text that is to be used to determine when to provide the advertisement to the end-users.

20. The method of claim 19, wherein scanning the advertisement includes:

comparing the text that is to be displayed to the terms or phrases in the list.

21. The method of claim 20, wherein scanning the advertisement further includes:

comparing the trigger text to the terms or phrases in the list.

22. The method of claim 16, further comprising:

submitting the advertisement for further review by an operator when the determination is to not accept the advertisement.

23. The method of claim 16, further comprising, when the determination is to not accept the advertisement, additional automated investigation of the advertisement.

24. The method of claim 23, wherein the additional automated investigation includes:

automatically providing the advertiser with an opportunity to represent that the advertisement is permitted when the determination is to not accept the advertisement.

25. The method of claim 16, wherein determining whether to accept the advertisement includes:

classifying the advertisement as suspect when the scanning indicates that one or more of the terms or phrases in the list are included in the advertisement, and

providing a party associated with the advertisement with an option to modify the advertisement or submit the advertisement for manual review when the advertisement is classified as suspect.

26. A computer-readable medium containing instructions for execution by a processor, the computer-readable medium comprising:

instructions for receiving an advertisement from an advertiser that is to be served to end-users;

instructions for scanning the advertisement for terms or phrases in a watchlist; and

instructions for determining whether to accept the advertisement based on the scanning.

27. The computer-readable medium of claim 26, wherein the terms or phrases include trademarks.

28. A system comprising:

logic to screen an advertisement received from an advertiser for violations by screening for trademarked terms or phrases occurring in text of the advertisement that the advertiser designates as the text that is to be displayed to end-users; and

logic to transmit the advertisement to end-users based on the advertisement not including violations.

29. The system of claim 28, further comprising:

logic to provide search results to the end-users, the search results including a plurality of advertisements that are determined to not include violations.

30. The system of claim 28, wherein the logic to screen an advertisement further includes:

a watchlist that includes the trademarked terms or phrases and that is based on previous complaints from trademark owners.

31. The system of claim 28, wherein the logic to screen an advertisement additionally screens trigger terms provided by the advertiser that relate to when the advertiser would like the advertisement provided to the end-users.

32. A method for screening content for intellectual property rights violations, the method comprising:

receiving an advertisement that is to be served to end-users;

automatically scanning the received advertisement for trademarked terms contained in a watchlist generated based on prior complaints received from trademark owners;

automatically determining to accept the received advertisement when the scanning does not indicate that the

received advertisement contains a trademarked term; and

queuing the received advertisement for manual review when the scanning indicates that the received advertisement contains a trademarked term.

* * * * *