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Paper 50
Entered: October 20, 2015

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SAMSUNG ELECTRONICS CO., LTD.,
SAMSUNG ELECTRONICS AMERICA, INC., and
SAMSUNG TELECOMMUNICATIONS AMERICA, LLC,
and
LG ELECTRONICS, INC., LG ELECTRONICS U.S.A., INC., and LG ELECTRONICS MOBILECOMM U.S.A., INC.
Petitioner,

v.

BLACK HILLS MEDIA, LLC,
Patent Owner.

Case IPR2014-00717
Case IPR2015-00335
Patent 6,108,686

Before BRIAN J. MCNAMARA, DAVID C. MCKONE,
and FRANCES L. IPPOLITO, *Administrative Patent Judges.*

MCKONE, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. INTRODUCTION

A. Background

Samsung Electronics Co., Ltd. ("Petitioner") filed a Petition (Paper 1, "Pet.") to institute an *inter partes* review of claims 1, 2, 20, 23, 29, and 30 of U.S. Patent No. 6,108,686 (Ex. 1001, "the '686 patent"). Pet. 4. Samsung Electronics America, Inc., and Samsung Telecommunications America, LLC, are identified as real parties-in-interest. Pet. 1. Black Hills Media, LLC ("Patent Owner") filed a Preliminary Response (Paper 9[1], "Prelim. Resp."). Pursuant to 35 U.S.C. § 314(a), in our Decision to Institute, we instituted this proceeding as to all of the challenged claims of the '686 patent. Paper 18 ("Dec."), 15.

After Samsung Electronics Co., Ltd., filed its Petition, LG Electronics, Inc., LG Electronics U.S.A., Inc., and LG Electronics MobileComm U.S.A., Inc., filed a petition (Case IPR2015-00335, Paper 2) and a motion to join the '335 proceeding to this proceeding (Case IPR2015-00335, Paper 3). We granted the motion for joinder, instituting the '335 proceeding on grounds identical to those in this proceeding. Paper 32. We refer to the petitioners in the joined proceeding collectively as "Petitioner."

After the Decision to Institute, Patent Owner filed a Patent Owner Response (Paper 36, "PO Resp."), and Petitioner filed a Reply to the Patent Owner Response (Paper 39, "Reply"). An oral hearing was held on July 28, 2015. Paper 49 ("Tr.").

Petitioner relies on the testimony of Kevin C. Almeroth, Ph.D. (Ex. 1005, "Almeroth Decl."; Ex. 1017, "2nd Almeroth Decl.") in support of

[1] Unless otherwise noted, paper numbers refer to papers filed in IPR2014-00717.

its contentions.[2] Patent Owner relies on the testimony of William O. Putnam (Ex. 2013, "Putnam Decl.") in support of its contentions.

We have jurisdiction under 35 U.S.C. § 6(c). This Decision is a Final Written Decision under 35 U.S.C. § 318(a) as to the patentability of the challenged claims. Based on the record before us, Petitioner has demonstrated, by a preponderance of the evidence, that all of the challenged claims are unpatentable.

B. Related Matters

The '686 patent has been asserted against multiple defendants in *Black Hills Media, LLC v. Samsung Electronics Co., Ltd.*, No. 2-13-cv-00379 (E.D. Tex.). Pet. 1; Paper 5, 2.

The '686 patent is also at issue in *Black Hills Media, LLC v. Yamaha Corporation of America*, No. 2:14-cv-00101 (C.D. Cal.); *Black Hills Media, LLC v. Sonos, Inc.*, No. 2:14-cv-00486 (C.D. Cal.); and *Black Hills Media, LLC v. Pioneer Electronics Inc.*, No. 2:14-cv-00471 (C.D. Cal.). Paper 5, 2.

[2] Patent Owner argues that we should disregard Dr. Almeroth's testimony because he did not provide a claim limitation-by-claim limitation analysis. PO Resp. 39–41. Although an expert witness is permitted to testify regarding the ultimate issue in a case, Fed. R. Evid. 704(a), we are aware of no requirement that he provide a claim-by-claim analysis. Consistent with our rules, we assign Dr. Almeroth's testimony appropriate weight in consideration of the underlying facts and data on which it is based. *See* 37 C.F.R. § 42.65(a).

C. References Relied Upon

Petitioner relies upon the following prior art references:

Reilly et al., US 5,740,549, issued Apr. 14, 1998, filed June 12, 1995 (Ex. 1003, "Reilly")

Jiri Weiss, *New Places to Go Online*, Vol. 14, No. 8, TECHNOLOGY & LEARNING 109–15 (May/June 1994) (Ex. 1004, "Technology & Learning")

D. The Asserted Grounds

We instituted this proceeding based on the following specific grounds (Dec. 15):

Reference(s)	Basis	Claims Challenged
Reilly	§ 102(e)	1, 2, 20, 23, 29, and 30
Reilly and Technology & Learning	§ 103(a)	1, 2, 20, 23, 29, and 30

E. The '686 Patent

The '686 patent is directed to techniques for retrieving information about a specific subject from remote databases. Ex. 1001, Abstract. At the time of the invention, high speed data connections were excessively expensive for many consumers, making it difficult to obtain information over the Internet and World Wide Web quickly. *Id.* at 1:12–39. The invention of the '686 patent uses a search agent to retrieve information relating to a single, predefined subject, stores that information in a local database, and allows a user to access the locally stored information. *Id.* at 2:8–23. Examples of subjects on which a user can seek information include news, cooking, weather, and sports. *Id.* at 3:40–43. The '686 patent terms

such a system a subject-specific information retrieval and viewing system ("SIRViS"). *Id.* at Abstract.

A SIRViS includes a graphical user interface ("GUI") in cooperation with a search agent. *Id.* at 5:21–22. The GUI includes a control panel component and a content viewer component. *Id.* at 5:22–24. Figure 4 of the '686 patent, reproduced below, illustrates an example of a SIRViS:

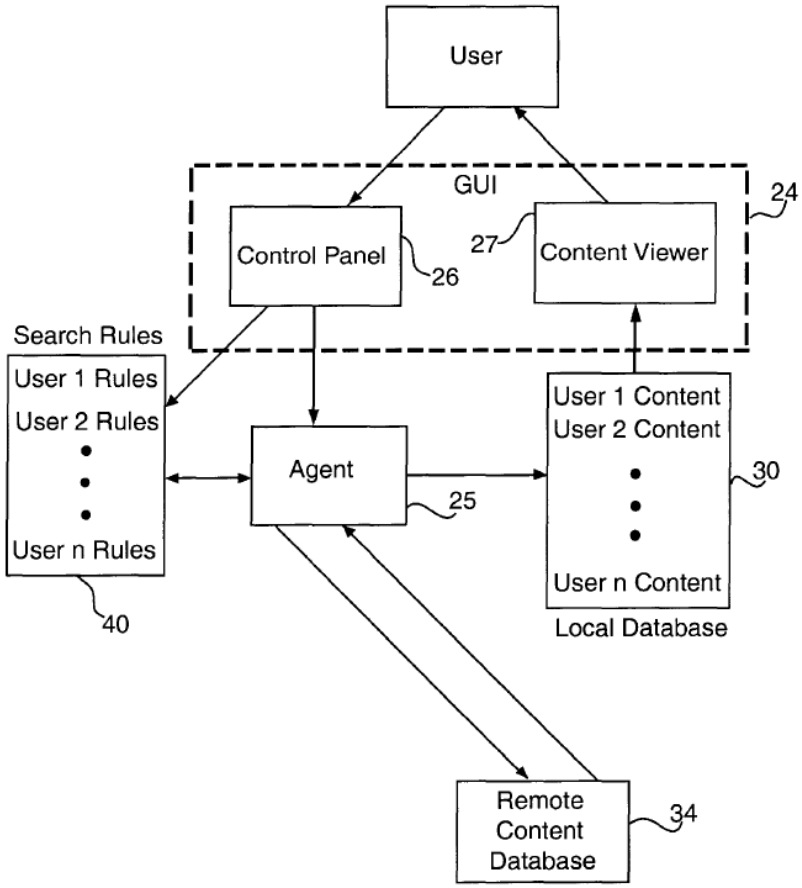


FIG. 4

Figure 4 is a block diagram illustrating the functions of a SIRViS. *Id.* at 2:40–41.

A user defines a set of search rules for a subject area (e.g., sports), using control panel 26. *Id.* at 5:24–28. The control panel component includes dialog boxes and other features, which, in a Windows-based environment, allow a user to enter, using a mouse, touchpad, etc., a set of search rules that define the type of information the user wants to access. *Id.* at 5:24–38. Control panel 26 maintains dataset 40 containing the search rules for the user and other users. *Id.* at 6:50–52. For example, each member of a family can define his or her own search rules for accessing information on the family's personal computer. *Id.* at 5:27–30. To retrieve the subject-based information for the user, search agent 25 accesses dataset 40, selects the rules defined by the user, retrieves information relating to the subject (e.g., sports) from remote database 34, and stores the retrieved information in local database 30. *Id.* at 6:53–57.

Search agent 25 can perform the search periodically, at scheduled times, or directly in response to a user request. *Id.* at 6:61–65. When the user wants to access the information, content viewer 27 retrieves the user's stored information from local database 30 and displays it to the user in a Windows-based environment. *Id.* at 6:14–24, 6:40–45.

Claim 1, reproduced below, is illustrative of the claimed subject matter:

> 1. A device for providing a plurality of local users with information stored remotely on a network, the device comprising:
>
> a rule generation unit configured to define, for each of the plurality of local users, a set of search rules applicable to a predefined subject; and

> a search agent configured to retrieve information on only the predefined subject from a database on the network based on each set of search rules and to store the retrieved information in a local database.

II. ANALYSIS

A. Claim Construction

We interpret claims of an unexpired patent using the broadest reasonable construction in light of the specification of the patent in which they appear. *See* 37 C.F.R. § 42.100(b); *In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1278 (Fed. Cir. 2015). Claim terms generally are given their ordinary and customary meaning, as would be understood by one of ordinary skill in the art in the context of the entire disclosure. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007).

In the Decision to Institute, we determined that no term required express construction for purposes of that Decision.[3] Dec. 7. Nevertheless, it is necessary to construe several terms that include the word "search," as well as the term "predefined subject," in this Decision in order to decide the challenges to patentability presented in the Petition. *See Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011) ("[C]laim terms need only be construed 'to the extent necessary to resolve the controversy.'"

[3] Patent Owner argues that, because we did not adopt Petitioner's proposed constructions or the constructions proposed by Patent Owner, Petitioner necessarily cannot make out a *prima facie* case of anticipation or obviousness. PO Resp. 35–39. Nevertheless, we analyze the arguments and evidence presented by Petitioner under our constructions as detailed in this Decision.

(quoting *Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

Claim 1 recites "a set of *search rules*" and "a *search agent* configured to retrieve information on only the *predefined subject* from a database on the network based on each set of *search rules*." Claim 20 recites "a unique set of *search criteria*" and "retrieving information relating to only the *predefined subject* from a database on the network based on each set of *search criteria*." Claim 29 recites "a set of *search rules*."

1. "search agent"

Petitioner proposes construing "search agent" to mean "hardware and/or software capable of retrieving information and storing it," but does not otherwise propose constructions for "search," individually, or either of the terms "search rules" or "search criteria." Pet. 5–6.

In response, Patent Owner contends that Petitioner's proposal does not fully appreciate the meaning of "search." PO Resp. 11. Patent Owner does not propose an express construction of "search," but does introduce technical dictionary definitions of the term, including:

> **search** (noun) – "The process of <u>seeking</u> *a particular file or specific data*. A search is carried out by a program through comparison or calculation to determine whether a match to some pattern exists or whether some other criteria have been met . . ."; and
>
> **search** (verb) – "1. To <u>*look for*</u> the location of a file. 2. To <u>*seek*</u> *specific data* within a file or data structure . . .".

PO Resp. 12 (quoting Ex. 2014 (MICROSOFT COMPUTER DICTIONARY, 4th ed.), 399) (emphases Patent Owner's). From the dictionary definitions, Patent Owner concludes that the ordinary and customary meaning of "search

agent" is "a computer program that acts on behalf of a user to conduct a search for (*e.g.*, seek/locate/look for) specific information, guided by search criteria that specify the particular information to be retrieved." PO Resp. 12.

Patent Owner argues that "the '686 Patent explicitly indicates that mere retrieval (i.e., 'gathering') and storage (i.e., 'download') of information does *not* constitute a 'search'." PO Resp. 14.

We are not persuaded by Patent Owner's attempt to distinguish search agents from programs that perform "gathering" or "retrieval." Rather, "retrieval" is precisely the function claim 1 assigns to the "search agent": "a search agent configured to *retrieve information* on only the predefined subject from a database on the network based on each set of search rules." This is consistent with the Specification, which states that "[t]he agent 25 is designed to use these sets of search rules to *retrieve a specific type of information* from the predefined remote databases 34 and to store that information in the local database 30 using the same data structure in which the data is stored in the remote databases 34." Ex. 1001, 6:34–38 (emphasis added); *see also id.* at 3:11–13 ("The search agent may *retrieve* the information periodically or at specified days or times, for example." (emphasis added)); 6:53–57 ("The agent 25 accesses the dataset 40, selects the set of rules for a particular user, [and] *retrieves information* from the remote database 34." (emphasis added)).

As these passages demonstrate, searching, in the context of the '686 patent, is retrieving a subset of the data stored on a database, the particular

subset retrieved being determined by search rules (or search criteria).[4] This also is reflected in the structure of the independent claims. For example, claim 1 recites "a search agent configured to *retrieve* information on only the predefined subject from a database on the network *based on each set of search rules*." Claim 20 recites "*retrieving* information relating to only the predefined subject from a database on the network *based on each set of search criteria*." Claim 29 recites "*retrieving* information relating to only the predefined subject from a remote database on the network."

Regarding the meaning of "agent," we accept a dictionary definition proposed by Patent Owner, namely "[a] program that performs a background task for a user and reports to the user when the task is done or some expected event has taken place." PO Resp. 13 (quoting Ex. 2014 (MICROSOFT COMPUTER DICTIONARY, 4th ed.)), 18. Although Petitioner protests that this excludes hardware and combinations of hardware and software (Reply 10), Petitioner presents no persuasive contrary evidence. Claim 1 further recites that "search rules" are defined by "a rule generation unit" for "each of the plurality of local users." We also accept a technical dictionary definition of "search criteria" provided by Patent Owner, namely "[t]he terms or conditions that a search engine uses to find items in a database." PO Resp. 12 (quoting Ex. 2014, 399). Considering this evidence together, we construe "search agent" to mean "a computer program that acts

[4] Claims 1 and 29 use the term "search rules," while claims 2 and 20 use the term "search criteria." The Specification appears to use the terms synonymously. *Compare* Ex. 1001, 2:10–11 *with id.* at 3:3–7. The parties do not argue persuasively that the terms should be assigned different meanings.

on behalf of a user to locate and retrieve information in accordance with search rules."

2. Alleged Distinction over "Push" Technology

In arguing a distinction between "search" and "retrieve" or "gather," Patent Owner contends that the Background of the Invention section of the '686 patent distinguishes the invention (which requires a "search") from "push" technology (that merely "gathers"). PO Resp. 13–14 (citing Ex. 1001, 1:18–25). In particular, the '686 patent states:

> Another, more recently developed information access technology is commonly referred to as "push" technology. With push technology, a remote server generally gathers information on various topics from remote databases, packages the information into subject groupings called "channels", and automatically downloads selected channels to the user's computer. The user does not need to search for or request the information. The retrieved information may be automatically stored locally on the user's computer, such that the user can browse the information off-line at a time of his own choosing.

Ex. 1001, 1:18–28.

Patent Owner offers definitions of "push" and "pull" technology from dictionaries and periodicals. PO Resp. 20–22. For example, Patent Owner argues that "push" technologies are "designed to provide end users with personalized Web access by having a site actively 'push' requested information to a user's desktop, either automatically or at specified intervals," while "pull" is "[t]he process of ***retrieving*** data from a network server." *Id.* at 20–21 (quoting Ex. 2014 (MICROSOFT COMPUTER DICTIONARY, 4th ed.), 364–66 (emphasis Patent Owner's)). According to Patent Owner, "*Push was developed as a means of relieving users from*

having to actively retrieve ('pull') information from the Web." *Id.* at 21 (quoting Ex. 2014, 365–66 (emphasis Patent Owner's)); *see also* Ex. 2015 (PC MAGAZINE ENCYCLOPEDIA) (characterizing "push" technology as technology "in which selected data are automatically delivered to the user's computer" and "pull" technology as technology "in which the user initiates a request for the data each time").

Patent Owner argues that the invention of the '686 patent is directed to "pull" systems. PO Resp. 22. According to Patent Owner, "[t]he search technology disclosed by '686 Patent in which users specify search criteria such that a search engine (e.g., search agent (25)) uses those criteria to seek and retrieve corresponding information is inherently 'pull' in nature." *Id.* Patent Owner cites to Mr. Putnam's testimony to show that "search technology" is "inherently 'pull' rather than 'push' in nature." *Id.* (citing Ex. 2013 ¶ 44). Patent Owner, however, does not cite to any examples in the Specification describing "pull" technology in which the user (rather than a search agent) actively initiates requests for data.

We do not read the '686 patent to distinguish the invention from "push" technology or otherwise characterize the claims as limited to "pull" technology (a term the '686 patent does not use). Rather, in the above-quoted passage (Ex. 1001, 1:18–28), consistent with Patent Owner's dictionary definitions, the patent characterizes "push" technology as data gathering performed automatically by a remote server (rather than at the request of a user). According to the patent's description of the preferred embodiments, a "search agent then automatically accesses content in the remote databases according to the search and stores the information in a local database." Ex. 1001, 3:8–11. In one embodiment, "the search agent

25 may be located remotely from the client system 1." *Id.* at 5:64–65. Thus, the '686 patent describes a preferred embodiment of the invention consistently with Patent Owner's definitions of "push" technology, in the sense that data are gathered automatically by software on a remote server and forwarded to the user's local computer. In contrast to Patent Owner's definitions of "pull" technology, the Specification describes the search agent retrieving data without the user actively initiating a search. *Id.* at 6:57–61 ("In one embodiment, the agent 25 searches the remote database 34 on behalf of one or more users *regardless of whether the client system 1 is currently in use by any user*; hence, *searches are generally performed automatically*." (emphasis added)). We note that information first must be located before it can be "pushed" or "pulled" to a user.

Although the examples it describes are consistent with Patent Owner's definitions of "push" technology, the '686 patent nevertheless purports to distinguish the invention over "conventional" push technology and web browsers, which the patent states "do not provide a user-friendly way for a person to access large volumes of stored information in the event that he wishes to archive the information for later use." *Id.* at 1:55–65. According to the patent,

> In contrast with conventional information access techniques, such as Web browsers and push technology, the search agent stores information in the local database using the same organizational structure in which the information was stored in the remote database. This structure is selected in advance to be suitable for effectively conveying information on the predefined subject area to a user in a format that can be easily assimilated.

Id. at 3:19–26. Thus, according to the Specification, the advantage of the search agent of the preferred embodiments over conventional push

technology is in the way that it stores information, not whether it operates in a "push" or "pull" configuration. Patent Owner's evidence does not show persuasively that the claim terms "search," "search agent," or any other claim language invokes a distinction between "push" and "pull" technologies.

In sum, we are not persuaded that the claims are directed to technology characterized as "pull," or exclude technology characterized as "push."

3. "search rules," and "search criteria"

Consistent with our construction of "search agent," the above-cited dictionary definitions, and the above-cited description in the Specification, we further construe "search rules" and "search criteria" to mean "the terms or conditions used to identify items to be retrieved from a database." *See* Ex. 1001, 3:3–11, 6:53–57; Ex. 2014, 399.

4. "predefined subject"

Claim 1 recites "a set of search rules applicable to *a predefined subject*" and "a search agent configured to retrieve information on *only the predefined subject*." Neither party proposes a construction of this term. Nevertheless, the parties dispute the application of this term to Reilly.

Petitioner, for example, contends that "news" can be a predefined subject. Pet. 29. In another instance, Petitioner contends that "football" can be a predefined subject. *Id.* at 44. Patent Owner's declarant, Mr. Putnam, appears to agree with Petitioner's first contention. Ex. 2013 ¶ 41 ("The search agents described in the '686 Patent are designed to be specific to a

predefined subject area, such as news, cooking, weather, or sports.").
Mr. Putnam cites to column 3, lines 40–43, of the '686 patent, which states "[t]he client system 1 may have multiple users who wish to access, from time to time, information stored in databases on the content servers 2 relating to various topics, such as news, cooking, weather, sports, etc." The parties appear to agree that this is the only disclosure in the '686 patent of examples of predefined subjects. Tr. 15:18–16:12, 28:21–29:19.

While neither party presents evidence to show the boundaries of the term "predefined subject," the parties appear to agree that term is broad enough to encompass a high level topic such as "news." This is consistent with the Specification. Ex. 1001, 3:40–43. Accordingly, the term "predefined subject" is broad enough to encompass "news."

B. Asserted Grounds of Unpatentability

1. Anticipation by Reilly

Patent claims are anticipated if a single prior art reference "show[s] all of the limitations of the claims arranged or combined in the same way as recited in the claims." *Net MoneyIN, Inc. v. VeriSign, Inc.*, 545 F.3d 1359, 1370 (Fed. Cir. 2008); *accord In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990).

Petitioner contends that Reilly anticipates claims 1, 2, 20, 23, 29, and 30. Pet. 42. For the reasons given below, we agree.

a. Overview of Reilly

Reilly describes a system for matching information to subscribers' interests, retrieving the information, and displaying the information, together

with advertisements, in screen savers on the subscribers' computers. Ex. 1003, 1:4–10, 5:20–23.

Figure 1 of Reilly, reproduced below, illustrates an example:

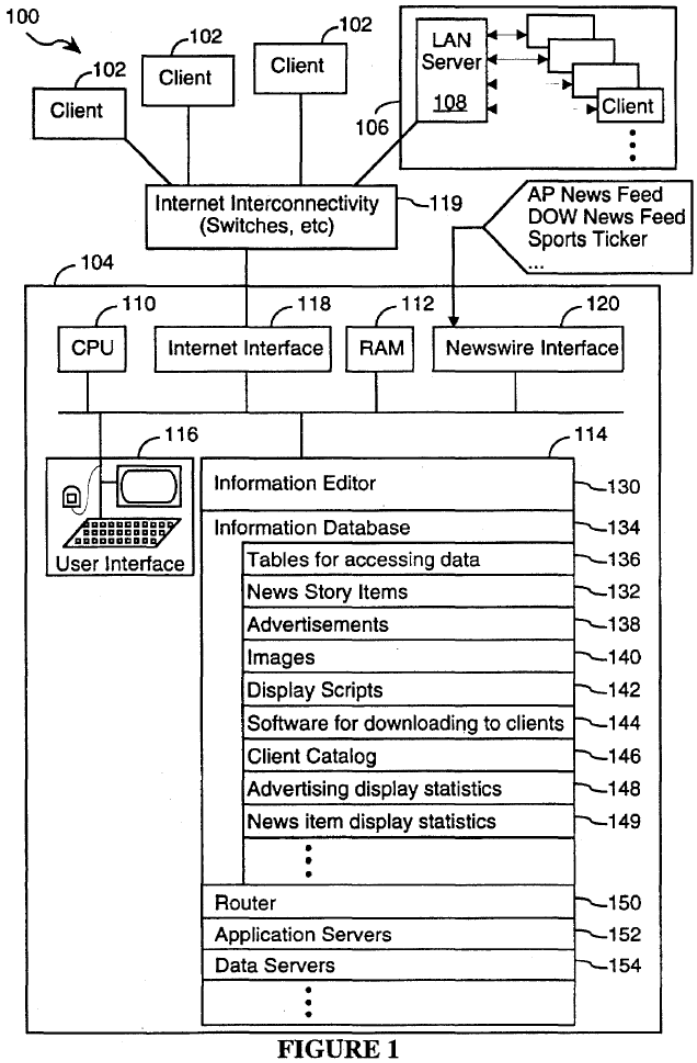


FIGURE 1

Figure 1 is a block diagram of an information and advertising distribution system. *Id.* at 3:30–32. Several subscriber computers, or clients 102, are connected to information server 104 via the Internet 119. *Id.* at 4:8–10. Additional clients are connected to local area network ("LAN") server 108 on LAN 106, and LAN server 108 is connected to information server 104

via the Internet 119. Petitioner focuses particularly on this LAN embodiment, as will be explained below.

Information server 104 includes newswire interface 120 that receives news feeds from services such as the Associated Press ("AP"), the DOW news feed, and sports news feeds. *Id.* at 4:28–31. Information editor 130 edits and formats the received news items into a form suitable to distribute to subscribers and stores the formatted items in information database 134. *Id.* at 4:31–38. Information editor 130 assigns each news item to an information category and, in some instances, a sub-category. *Id.* at 4:39–42. Information database 134 also stores advertisements 138, which also are assigned to information categories. *Id.* at 4:66–5:1.

Each client 102 (or in the case of clients networked together in LAN 106, the LAN server 108) includes category managers. *Id.* at 6:62–67. There can be a separate category manager for each information category. *Id.* at 7:3–6. Each category manager includes a category profiler, which presents a dialog box to a subscriber to determine whether the subscriber is interested in specific subcategories (e.g., by selecting and deselecting boxes corresponding to specific sports or specific sports teams, as shown in Figure 5). *Id.* at 7:13–18, 9:36–57. The categories selected by the subscriber are stored in a category profile data structure. *Id.* at 7:18–20, 9:58–61.

A subscriber computer connects to the information server at a time that the subscriber is not likely to be using the computer (e.g., once in the middle of the night) or periodically (e.g., every four hours) to download news items and advertisements, which then are stored in the subscriber computer's local information database. *Id.* at 8:19–31. In the case of a LAN

server serving several clients, the LAN server downloads news items and advertisements for all of the clients and stores them on its local database. *Id.* at 15:19–27. When an individual subscriber on a client computer of the LAN wants to view news items, the news items are filtered according to the subscriber's user profile and the subscriber is presented with only those items and advertisements that match its profile. *Id.* at 15:27–39.

For a particular subscriber, a screen saver program displays news items and advertisements (e.g., as shown in Figure 6). *Id.* at 11:40–52. Advertisements are displayed on subscribers' workstations simultaneously with news items that have been assigned to the same category. *Id.* at 5:1–4. If the subscriber wants to read a particular news item, the subscriber can give a command (e.g., click on the news item with the mouse), after which a data viewer (Figure 2, data viewer 208, and Figure 10) is launched to display the full news story associated with the news item. *Id.* at 9:11–17, 13:29–37.

b. Claims 1, 20, and 23

Regarding claim 1, Petitioner contends that Reilly's LAN server 108 is a "device for providing a plurality of local users with information stored remotely on a network." Pet. 21–22, 43. According to Petitioner, the clients in LAN 106 are the plurality of local users. *Id.* Petitioner further contends that Reilly's category profiler is a "rule generation unit" and that the data structure the category profiler generates is a "set of search rules." *Id.* at 22, 44–45. Petitioner also contends that Reilly describes LAN server 108 as configured to retrieve news items and advertisements relating to a category selected by a subscriber and, thus, includes "a search agent configured to retrieve information on . . . the predefined subject from a database on the

network based on each set of search rules," as recited in claim 1. *Id.* at 23, 45–46. Petitioner argues that because both the news items and advertisements retrieved by LAN server 108 relate to the same subject, the search agent of the LAN server retrieves information "on only the predefined subject." *Id.* at 22; *see also* Ex. 1003, 4:66–5:4 ("Advertisements 138 are also stored in the information database 134 and each advertisement is assigned to at least one of the predefined information categories. Each advertisement is displayed on subscribers' workstations simultaneously with news items assigned to the same category as the advertisement."). Petitioner contends that LAN server 108, when it downloads news items into its local database, "store[s] the retrieved information in a local database." Pet. 23, 45–46. Regarding claims 20 and 23, Petitioner makes substantially the same contentions as it does for claim 1. *Id.* at 46–50.

We have considered Petitioner's evidence (Pet. 21–24, 42–50), including Dr. Almeroth's testimony (Ex. 1005 ¶¶ 29–35), and agree with Petitioner that Reilly discloses each limitation of claims 1, 20, and 23. For the reasons below, we are not persuaded by Patent Owner's arguments to the contrary. With the exception of claim 2 (discussed below), Patent Owner does not present separate arguments for each of the challenged claims. Rather, Patent Owner presents arguments common to independent claims 1, 20, and 29.

In its Response, Patent Owner contends that Reilly does not anticipate the challenged claims because it describes a "push" system of the type distinguished by the '686 patent. PO Resp. 20–23. According to Patent Owner,

> whereas the methods and systems of the '686 Patent utilize a search agent to identify, locate, and retrieve targeted

> information from one or more data sources, Reilly's system utilizes 'push' technology such that users of the clients (102) merely receive content that was previously received at, edited at, and compiled for download by the information server (104).

Id. at 22. Patent Owner also argues that PointCast, Inc., the assignee of Reilly, utilized "push" technology in its commercial product. *Id.* at 23. As explained in Section II.A.2 above, the challenged claims do not distinguish between "push" and "pull" technologies. Thus, whether Reilly implements "push" or "pull" technology is not dispositive of Petitioner's challenge.

We also disagree with Patent Owner's characterization of Reilly. Information server 104 compiles news stories and stores them according to categories and sub-categories. Ex. 1003, 4:23–49. Software executing on client 102 (or LAN server 108, in a LAN configuration) locates and retrieves only some of the news stories from information server 104. *Id.* at 6:46–56. The news stories the software retrieves are determined by the categories and sub-categories selected by a user and supplied to category managers executing on client 102. *Id.* at 6:62–7:20, 9:36–61. The system described by Reilly locates and retrieves from a remote database the subset of the data stored on that database that corresponds to search rules provided by a user. Thus, Reilly teaches seeking out or locating information corresponding to search rules and retrieving the located information. As explained in Section II.A.1 above, this is consistent with the searching described in the '686 patent.

Patent Owner further seeks to distinguish Reilly by arguing that it discloses "filtering" that is "passive" rather than a system that "actively searches." PO Resp. 24–26. Patent Owner admits that, according to Reilly, "items to be downloaded are compared to the category preferences of a user

profile, and items that are not excluded by the profile are transmitted to the user's client (102)" and that "[t]he sub-category selections and filters are then used by the information server (104) to filter the information downloaded to the client, so that only information of interest to the subscribers is transmitted" to client 102. *Id.* at 25 (citing Ex. 1003, 14:49–58, 15:28–33, 15:37–40, 16:20–26). Nevertheless, Patent Owner argues,

> [a] person skilled in the art would appreciate that the "filtering" disclosed by Reilly and relied upon by the Petitioner is distinct from the '686 Patent's notion of searching utilizing a search agent, search rules, and/or search criteria, and reflects the fundamental distinction between Reilly's "push" system and the "pull" system disclosed and claimed in the '686 Patent.

Id. at 26. Patent Owner cites Mr. Putnam, who, in turn, cites to a dictionary definition of "filter." Ex. 2013 ¶ 48 (citing Ex. 2014, 185 ("**filter** *n.* . . . 3. A pattern or mask through which data is passed to weed out specified items.").

Patent Owner's argument appears to be that "searching" positively identifies information to be retrieved and actively retrieves it while "filtering" negatively identifies information to be excluded from retrieval and allows the rest to pass through. The plain language of claim 1 does not capture this distinction. Rather, it recites "a search agent configured to retrieve information on only the predefined subject from a database on the network," without limiting such retrieval to any particular technique, other than such retrieval must be "based on each set of search rules."

Nor does Patent Owner provide any examples from the Specification on which to base its distinction. As explained in Section II.A.1 above, the Specification describes searching as retrieving, from a remote database, information that corresponds to search rules. *See*, *e.g.*, Ex. 1001, 6:34–36 ("The agent 25 is designed to use these sets of search rules to retrieve a

specific type of information from the predefined remote databases 34."). Patent Owner does not argue persuasively that the "search rules" provide for "active" searching or preclude "filtering." Indeed, at the hearing, Patent Owner could not identify any examples of "search rules" disclosed in the '686 patent. Tr. 21:4–7 ("JUDGE McKONE: Are there any examples in the specification of what these search rules are? MR. HAIGHT: I think the specification refers to the search rules in a high level."). Thus, Patent Owner has offered no persuasive support in the Specification for its distinction between filtering and searching. Moreover, Dr. Almeroth testifies that a skilled artisan would have understood filtering to be a form of searching, giving the example of search engines that allowed Boolean searches including the "NOT" operator. Ex. 1017 ¶ 34 (citing Ex. 1018). We credit this testimony.

Patent Owner further contends that Reilly does not disclose, for sets of search rules defined for "each of [a] plurality of users," "a search agent configured to retrieve information *on only the predefined subject*," as recited in claim 1, as well as the similar recitations of claim 20. PO Resp. 27–29. Petitioner contends that this limitation is disclosed by Reilly's description of a LAN server creating a group profile that represents the union of all news category preferences of the LAN's clients (sets of rules for each of a plurality of users) and retrieving from the remote database news stories (information on only the predefined subject) that correspond to the group profile. Pet. 45–46 (citing Ex. 1003, 15:19–37). In this embodiment, the subset of news stories corresponding to the group profile is stored on the local database. Ex. 1003, 15:19–37. When a particular client wishes to view the news stories corresponding to its individual profile, the LAN server

filters out those news stories and presents them to the client. *Id.* Patent Owner argues that, in this embodiment, the information retrieved from the remote database is information related to multiple predefined subjects because it is the union of all of the client preferences. PO Resp. 29.

Reilly refers to the content stored on its remote information database as "news stories," which can be categorized more finely into categories and sub-categories such as "specific companies, geographic regions, specific sports and sports teams, and so on, depending on the category." Ex. 1003, 6:61–7:18; *see also id.* at Fig. 1 ("News Story Items" 132). As explained in Section II.A.4 above, and as testified to by Mr. Putnam, "news" is an example of a predefined subject described in the '686 patent. Thus, even though Reilly's LAN server retrieves stories for a plurality of clients, each of those stories corresponds to the same high-level subject of "news." As Petitioner argues (Reply 22), this is very similar to the '686 patent's example in which multiple users each specify their own set of rules for a particular subject area and a search agent retrieves data corresponding to all of these sets together. Ex. 1001, 6:31–46.

At the hearing, Patent Owner argued that "news" would be "an overly broad subject," but conceded that it had no evidence to support that argument. Tr. 30:3–19. We are not persuaded by Patent Owner's argument. Rather, we find that Reilly's "news stories" is a predefined subject, consistent with the description in the Specification and Mr. Putnam's testimony.

In sum, on the complete record, for the reasons stated in the Petition (Pet. 21–24, 42–50) summarized above, we find that Reilly discloses each limitation of claims 1, 20, and 23, arranged as in those claims. For the

reasons given above, we are not persuaded by Patent Owner's arguments. Accordingly, we find that Petitioner has shown, by a preponderance of the evidence, that Reilly anticipates claims 1, 20, and 23.

c. Claims 2, 29, and 30

Claim 2 recites "*[a] device* according to claim 1, further comprising a *user interface* configured to enable each of the plurality of local users to access, from the local database, the information on the predefined subject associated with the corresponding set of search criteria." Petitioner contends that Reilly's data viewer 208, implemented on LAN server 108, is a "user interface" that enables Reilly's subscribers to access the information associated with the search rules from the LAN server's local database. Pet. 46. Petitioner contends that "[t]he LAN server carries out user interface functionality for the subscriber workstations by filtering content according to each subscriber's preferences." *Id.* at 23–24 (citing Ex. 1003, 15:19–37). We agree with Petitioner for the reasons stated in the Petition.

Patent Owner does not dispute that Reilly's data viewer 208 is a "user interface" meeting the limitation of claim 2. Rather, Patent Owner contends that Reilly's data viewer actually is part of a client, while the components Petitioner identifies as the "rule generation unit" and "search agent" of claim 1 are part of the LAN server. PO Resp. 30. According to Patent Owner, "the alleged user interface of Reilly is not a component element of the device represented by the LAN Server (108) such that claim 2 patentably distinguishes over Reilly for at least this additional reason." *Id.* at 31. In support of this position, Patent Owner (PO Resp. 30) cites to Mr. Putnam, who testifies "[t]he user interface [of Reilly] is therefore not a component

element of a single device, but rather a separately located component in a system comprised of multiple devices." Ex. 2013 ¶ 61.

Data viewer 208 is shown in Figure 2, which is "a schematic representation of the subscriber's workstation or computer 102 that is not connected to the information server 104 via a LAN server." Ex. 1003, 6:17–19. In its description of the LAN server embodiment, Reilly is not clear as to whether the data viewer 208 is software running on the LAN server or the client. On one hand, Reilly states that "[f]or subscribers' workstations connected to the information server 104 via a LAN server 108, FIG. 2 is representative of the LAN server." Ex. 1003, 6:19–21. On the other, as Patent Owner points out (PO Resp. 30), Reilly states that, in the LAN server embodiment, "the display device used by each such subscriber's computer to view news items and advertisements is part of the subscriber's workstation rather than the LAN server 108." Ex. 1003, 6:22–24.

Patent Owner's argument assumes that claim 2 is limited to a single physical device and excludes embodiments with multiple components connected via a network. Patent Owner does not cite to persuasive evidence that claim 2 is so limited. Petitioner, however, points out that the '686 patent describes embodiments in which the components are spread across a network, for example the search agent residing at a remote content server and communicating across the Internet with another component (e.g., a graphical user interface) that resides on a local computer. Reply 24 (citing Ex. 1001, 5:64–6:3). Petitioner's evidence shows that the broadest reasonable interpretation of "a device" includes components that communicate with one another over a network. With this understanding, we

find that data viewer 208 is a user interface that is part of the same device as the components of Reilly that correspond to the limitations of claim 1.

Based on the complete record, Petitioner has shown, by a preponderance of the evidence, that Reilly anticipates claim 2.

Regarding claims 29 and 30, Petitioner presents substantially the same arguments and evidence as it does for claims 1 and 2. Pet. 51–57. Patent Owner does not present separate arguments or evidence for claims 29 and 30. Based on the complete record, Petitioner has shown, by a preponderance of the evidence, that Reilly anticipates claims 29 and 30.

2. Obviousness over Reilly and Technology & Learning

A claim is unpatentable under 35 U.S.C. § 103(a) if the differences between the claimed subject matter and the prior art are "such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which such subject matter pertains." We resolve the question of obviousness on the basis of underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art;[5] and (4) objective evidence of

[5] Petitioner and Patent Owner essentially agree on the level of skill in the art, although Petitioner contends a skilled artisan would have had "two or more years of work experience," while Patent Owner contends that the skilled artisan would have had "*about* two years of work experience." Pet. 9; PO Resp. 9–10. The minor differences in the parties' proposals do not affect the outcome of this proceeding.

nonobviousness, i.e., secondary considerations.[6] *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

Petitioner contends that claims 1, 2, 20, 23, 29, and 30 would have been obvious over Reilly and Technology & Learning. Pet. 26–27. For the reasons given below, we agree.

a. Overview of Technology & Learning

Technology & Learning describes products offered by PRODIGY and Scholastic on which classroom users search for and display information. Ex. 1004, 109. Petitioner cites Technology & Learning for its description of different business models described for presenting information in a classroom. Pet. 20–21. In particular, according to Technology & Learning, the Classroom PRODIGY product charged a user fee but blocked the display of advertisements. Ex. 1004, 109, 114. In contrast, the Scholastic Network displayed advertisements and charged a user fee, although a smaller user fee than Classroom PRODIGY. *Id.* at 110.

b. Claims 1, 2, 20, 23, 29, and 30

Petitioner contends that claims 1, 2, 20, 23, 29, and 30 would have been obvious over Reilly and Technology & Learning. Pet. 25. Petitioner raises this ground in the event that Reilly's "news stories" and "advertisements" are interpreted as separate subjects (as opposed to information corresponding to a single subject). Pet. 22, 25–26, 30–31. Patent Owner's Response does not distinguish Reilly from the challenged claims on the basis of news stories and advertisements being separate

[6] The record does not contain any evidence of secondary considerations.

subjects. Nevertheless, a system that retrieves only news stories, and not advertisements, would meet the limitations of the challenged claims for the same reasons.

Petitioner argues that Technology & Learning explicitly describes the revenue models used by Classroom PRODIGY and Scholastic Network. Pet. 26–27 (citing Ex. 1004, 109–10, 114); Ex. 1005 ¶ 39. According to Petitioner, based on the disclosure in Technology & Learning, a person of ordinary skill in the art, applying Reilly's system in other contexts, such as education, would have considered other revenue models that eliminated advertisements. *Id.* at 26–27. Using that model, Reilly's LAN server would retrieve only news and not advertisements, and, thus, would be configured to retrieve information on "only the predefined subject," as recited in claim 1, and similarly recited in claims 20 and 29. *Id.* at 27, 34–35, 38–39.

We find that Technology & Learning gives an express reason to eliminate advertising, namely, "barring kids from material parents and educators may find objectionable." Ex. 1004, 109. Dr. Almeroth also explains that such a modification to Reilly would have been easy for a skilled artisan to implement as it would have involved only the removal of a feature. Ex. 1005 ¶ 41.

Regarding the remaining limitations of claims 1, 2, 20, 23, 29, and 30, Petitioner applies Reilly in substantially the same manner as in its anticipation allegations described above. Pet. 27–42.

Patent Owner does not present separate arguments as to the obviousness of the challenged claims.[7] Rather, Patent Owner argues that "Petitioner's reliance on *Technology & Learning* cannot cure the deficiencies discussed above with respect to the Petitioner's application of Reilly alone to the challenged claims." PO Resp. 31. Specifically, Patent Owner argues that "even if the advertisements of Reilly were removed as suggested by the Petitioner, Reilly fails to disclose the remainder of the recitations of independent claims 1, 20, and 29." *Id.* at 34. For the reasons given above, we are not persuaded by Patent Owner's arguments as to the alleged deficiencies of Reilly.

On the complete record, we are persuaded that Technology & Learning teaches a reason to remove advertisements from the system described in Reilly, i.e., in order to remove material parents and educators would find objectionable for children. Petitioner also has shown that a skilled artisan would have had the skill to remove the advertisements. To the extent advertisements are not the same "predefined subject" as "news," the resulting system would retrieve information on only one predefined

[7] In a footnote, Patent Owner states that it "respectfully maintains that the Petitioner's proposed modification of Reilly in view of *Technology & Learning* would render Reilly unsatisfactory for its intended purpose such that a person of ordinary skill in the art would not combine the references as suggested by Petitioner." PO Resp. 34 n.9. Presumably, Patent Owner refers to arguments made in its Preliminary Response. Our rules preclude such incorporation by reference of arguments. *See* 37 C.F.R. § 42.6(a)(3) ("Arguments must not be incorporated by reference from one document into another document."). Accordingly, we do not consider those arguments in this Decision. *See also* Paper 27 (scheduling order) ("The patent owner is cautioned that any arguments for patentability not raised in the response will be deemed waived.").

subject, "news." We find that such a system would meet each limitation of claims 1, 2, 20, 23, 29, and 30.

On the complete record, Petitioner has shown, by a preponderance of the evidence, that claims 1, 2, 20, 23, 29, and 30 would have been obvious over Reilly and Technology & Learning.

III. CONCLUSION

Petitioner has demonstrated, by a preponderance of the evidence, that claims 1, 2, 20, 23, 29, and 30 are anticipated by Reilly and would have been obvious over Reilly and Technology & Learning.

IV. ORDER

For the reasons given, it is

ORDERED that, based on a preponderance of the evidence, claims 1, 2, 20, 23, 29, and 30 are held unpatentable; and

FURTHER ORDERED that, because this is a Final Written Decision, parties to this proceeding seeking judicial review of it must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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