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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

FACEBOOK, INC., LINKEDIN CORP., and TWITTER, INC.,
Petitioner,

v.

SOFTWARE RIGHTS ARCHIVE, LLC,
Patent Owner.

Case IPR2013-00481
Patent 6,233,571 B1

Before SALLY C. MEDLEY, CHRISTOPHER L. CRUMBLEY, and BARBARA A. PARVIS, *Administrative Patent Judges.*

PARVIS, *Administrative Patent Judge.*

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

I. BACKGROUND

A. Introduction

On July 30, 2013, Facebook, Inc., LinkedIn Corp., and Twitter, Inc. (collectively "Petitioner") filed a petition ("Pet.") requesting an *inter partes* review of claims 12, 21, 22, 26, 28, and 31 of U.S. Patent No. 6,233,571 B1 (Ex. 1001, "the '571 Patent"). Paper 1. On February 3, 2014, we instituted

trial for challenged claims 12, 21, and 22 of the '571 Patent on certain of the grounds of unpatentability alleged in the Petition. Paper 16 ("Decision to Institute" or "Inst. Dec."). We denied institution of *inter partes* review of claims 26, 28, and 31 of the '571 Patent. *Id*.

After institution of trial, Patent Owner, Software Rights Archive, LLC ("Patent Owner"), filed a Patent Owner Response ("PO Resp."). Paper 29. Petitioner also filed a Reply. Paper 38 ("Reply").

A consolidated oral hearing for IPR2013-00478, IPR2013-00479, IPR2013-00480, and IPR2013-00481, each involving the same Petitioner and the same Patent Owner, was held on October 30, 2014. The transcript of the consolidated hearing has been entered into the record. Paper 53 ("Tr.").

We have jurisdiction under 35 U.S.C. § 6(c). This final written decision is issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73.

Petitioner has shown by a preponderance of the evidence that claims 12 and 22 of the '571 Patent are unpatentable.

Petitioner has not shown by a preponderance of the evidence that claim 21 of the '571 Patent is unpatentable.

B. Related Proceedings

Petitioner indicates that the '571 patent is involved in the following co-pending lawsuits: *Software Rights Archive, LLC v. Facebook, Inc.*, No. 12-cv-3970 (N.D. Cal., filed July 27, 2012); *Software Rights Archive, LLC v. LinkedIn Corp.*, No. 12-cv-3971 (N.D. Cal., filed July 27, 2012); and *Software Rights Archive, LLC v. Twitter, Inc.*, No. 12-cv-3972 (N.D. Cal., filed July 27, 2012). Pet. 2. Petitioner also indicates that the '571 patent was the subject of prior lawsuit: *Software Rights Archives, Inc. v. Google*, No. 08-cv-03172 (N.D. Cal.) ("Google Lawsuit"). Pet. 7–8.

The ’571 patent was the subject of Reexamination 90/011,012. Additionally, Petitioner filed other petitions on related patents including: IPR2013-00478, which seeks *inter partes* review of U.S. Patent No. 5,544,352 (“the ’352 Patent”) and IPR2013-00479 and IPR2013-00480, each of which seeks *inter partes* review of U.S. Patent No. 5,832,494 (“the ’494 Patent”). The ’571 Patent issued from an application that was a divisional of the application that issued as the ’494 Patent. The ’352 Patent issued from the parent of the application that issued as the ’494 Patent.

C. The ’571 Patent

The ’571 Patent relates to computerized research on databases. Ex. 1001, 1:16–17. According to the ’571 Patent, it improves search methods by indexing data using proximity indexing techniques. *Id*. at 3:25–36. The ’571 Patent further states that its computerized system for researching data is effective for indexing and searching the Internet and the World Wide Web. *Id*. at 48:19–26.

D. Illustrative Claims

The independent claims are 12, 21, and 22.

Independent claims 12 and 21 illustrate the claimed subject matter and are reproduced below:

> 12. A method for visually displaying data related to a web having identifiable web pages and Universal Resource Locators with pointers, comprising:
>
> choosing an identifiable web page;
>
> identifying Universal Resource Locators for the web pages, wherein the identified Universal Resource Locators either point to or point away from the chosen web page;
>
> analyzing Universal Resource Locators, including the identified Universal Resource Locators, wherein Universal

Resource Locators which have an indirect relationship to the chosen web page are located, wherein the step of analyzing further comprises cluster analyzing the Universal Resource Locators for indirect relationships; and

displaying identities of web pages, wherein the located Universal Resource Locators are used to identify web pages.

21. A method of displaying information about a network that has hyperjump data, comprising:

choosing a node;

accessing the hyperjump data;

identifying hyperjump data from within the accessed hyperjump data that has a direct reference to the chosen node;

determining hyperjump data from within the accessed hyperjump data that has an indirect reference to the chosen node using the identified hyperjump data, wherein the step of determining comprises [cluster analyzing the hyperjump data] *non-semantically generating a set of candidate cluster links for nodes indirectly related to the chosen node using the hyperjump data, assigning weights to the candidate cluster links and deriving actual cluster links from the set of candidate cluster links based on the assigned weights*; and

displaying one or more determined hyperjump data.[1]

E. The Prior Art References Supporting Alleged Unpatentability

Edward A. Fox, et al., *Users, User Interfaces, and Objects: Envision, a Digital Library*, 44 J. AM. SOC. INF. SCI., no. 8 at 480–91 (Sept. 1993) ("Envision") (Ex. 1006).

Edward A. Fox, *Extending the Boolean and Vector Space Models of Information Retrieval with P-Norm Queries and Multiple Concept Types*,

[1] Claim 21 is shown as it appears in the Reexamination Certificate.

(Aug. 1983) (Ph.D. dissertation, Cornell Univ. Dept. of Comp. Sci.) ("Fox Thesis") (Ex. 1012).

Edward A. Fox, *Some Considerations for Implementing the SMART Information Retrieval System under UNIX*, (Sept. 1983) (Ph.D. dissertation, Cornell Univ. Dept. of Comp. Sci.) ("Fox SMART") (Ex. 1013).

The parties do not dispute the prior art status of the references.

F. *The Pending Ground of Unpatentability*

References	Basis	Claims challenged
Fox Thesis, Fox SMART, and Envision	§ 103	12, 21, and 22

II. ANALYSIS

A. Claim Construction

1. Principles of Law

Petitioner asserts, and Patent Owner does not dispute, that the '571 Patent expired on June 14, 2013. Pet. 7. The Board's interpretation of the claims of an expired patent is similar to that of a district court's review. *See In re Rambus, Inc.*, 694 F.3d 42, 46 (Fed. Cir. 2012). We, therefore, are guided by the principle that the words of a claim "are generally given their ordinary and customary meaning," as understood by a person of ordinary skill in the art in question at the time of the invention. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc) (citation omitted). "In determining the meaning of the disputed claim limitation, we look principally to the intrinsic evidence of record, examining the claim language itself, the written description, and the prosecution history, if in evidence."

DePuy Spine, Inc. v. Medtronic Sofamor Danek, Inc., 469 F.3d 1005, 1014 (Fed. Cir. 2006) (citing *Phillips*, 415 F.3d at 1312–17). There is a "heavy presumption," however, that a claim term carries its ordinary and customary meaning. *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (citation omitted).

2. Overview of the Parties' Positions

In the Decision to Institute, we construed "non-semantically," "cluster links," "candidate cluster links," "Universal Resource Locators," and "web page." Inst. Dec. 9–11. Our constructions are set forth in the table below.

Claim Term or Phrase	Construction
"non-semantically"	"[B]ased on direct relationships between textual objects and that otherwise does not account for phrases and words in a textual object." Inst. Dec. 9.
"cluster links"	"[R]elationships used for grouping interrelated nodes." Inst. Dec. 10.
"candidate cluster links"	"[A] set of possible cluster links between a search node and a target node." Inst. Dec. 11.
"Universal Resource Locators"	"[A]n address commonly used for a web page." Inst. Dec. 11.
"web page"	"[A] document on the World Wide Web." Inst. Dec. 11.

Petitioner does not disagree with any of our constructions. Reply 2. Patent Owner appears to agree with many of our constructions, and states that it uses our constructions for the purpose of evaluating patentability of the challenged claims of the '571 patent. PO Resp. 12–13. Patent Owner, however, expressly disagrees with our construction of "cluster links" and provides an alternate construction (*id*. at 13), which we evaluate below.

Patent Owner additionally contends that "[a]ll claims require the use of an analysis of indirect relationships for computerized searching," *Id*. at 2, so, in addition to "cluster links," we also evaluate our constructions of "indirect relationships" and "indirect reference" in claims 12 and 22 respectively.

In addition to these express disputes, Patent Owner also makes arguments in its response that implicitly rely on narrower constructions than we adopted in our Decision to Institute. For example, Patent Owner makes arguments based on a construction of "web page," as recited in claim 12, that is narrower than the construction that we adopted in the Decision to Institute. PO Resp. 21–22. Patent Owner further makes arguments based on a specific order of steps of claim 21. *Id.* at 48–49. We consider these disputes to be claim construction issues and consider them below.

Additionally, Patent Owner provides proposed constructions for "proximity indexing" and "cluster analyzing," which are evaluated below. PO Resp. 13–14. Petitioner does not contest Patent Owner's proposed constructions of these terms. Reply 2.

With the exception of the terms that we note as requiring additional evaluation, for each of the other claim terms above, we discern no reason, based on the complete record now before us, to change our construction thereof.

3. "cluster links"

The term "cluster links" is recited in claim 21. Patent Owner asserts that the correct interpretation of "cluster links" is narrower than the construction that we adopted. *See e.g.*, PO Resp. 13. Patent Owner's contentions are based on two alternate constructions of "cluster links." First, according to Patent Owner, "cluster link" means: "a relationship between

two nodes based [upon] statistical analysis of multiple relationships between [] nodes in a database." *Id.* (citing Ex. 2021).

Second, Patent Owner contends that "[a]ll claims require the use of an analysis of indirect relationships for computerized searching." PO Resp. 2. Patent Owner contends that the asserted art, in contrast, simply teaches "experiments to determine whether direct and indirect relationships existing among paper documents are useful for clustering and searching." *Id.* at 1.

Regarding Patent Owner's first contention, Patent Owner does not explain why the asserted construction is correct. *See* 37 C.F.R. §§ 42.23, 42.120. Patent Owner, instead, cites to the analysis in Exhibit 2021. Patent Owner, however, does not submit Exhibit 2021. *See* Patent Owner's Exhibit List (Paper 31), 3.

Petitioner submits a Claim Construction Order in the Google Lawsuit ("Claim Construction Order," Ex. 1011), which adopts the construction above. The construction was argued by defendants in the Google Lawsuit, which are not parties to this *inter partes* review. The Claim Construction Order includes analysis of the specification of the '494 Patent and, in particular, a document incorporated by reference in the '494 Patent specification, referred to as "V-Search Manual." Ex. 1011, 15–18. Patent Owner has not pointed us to citations in the V-Search Manual and has not identified this manual within the record of this *inter partes* review. Thus, we decline to adopt Patent Owner's first proposed construction.

Regarding Patent Owner's second contention that the challenged claims require the use of an analysis of indirect relationships for computerized searching (PO Resp. 2), we evaluate whether our prior construction of cluster links should be modified to clarify that the

relationships must be represented in data stored in a computer, not existing merely among printed documents.

Claim 21 recites a method of displaying information about a network, which includes a determination regarding hyperjump data. As explained in the '571 Patent specification, exemplary hyperjump data includes hyperjump links, which connect web pages, web sites, and documents on the web. Ex. 1001, 48:37–39. The specification of the '571 Patent states that a link is a "relationship between two nodes." *Id.* at 13:5–6. The '571 Patent specification continues, "[a] link [] can be represented by a vector or an entry on a table and contain information for example, a from-node identification [] (ID), a to-node ID [], a link type [], and a weight." *Id*. at 13:9–12. As described in the '571 Patent specification, a link is represented in data stored in a computer.

We, therefore, construe "cluster links" in light of the specification of the '571 Patent to mean relationships, which are represented in data stored in a computer and are used for grouping interrelated nodes.

4. "indirect relationships" and "indirect reference"

The term "indirect relationships" is recited in claim 12 and the term "indirect reference" is recited in claim 22. As discussed above, the terms "link" and "relationship" are used interchangeably in the '571 Patent specification. For the reasons discussed above, therefore, we construe "indirect relationships" to mean indirect relationships that are represented in data stored in a computer. For these same reasons, we construct "indirect reference" to mean an indirect reference that is represented in data stored in a computer.

5. "proximity indexing"

The term "proximity indexing" is recited, for example, in claim 22. Patent Owner argues that "proximity indexing" means "techniques [that] generate a quick-reference of the relations, patterns, and similarity found among the data found in the database." PO Resp. 13–14 (citation omitted). Petitioner does not contest this construction. Reply 2.

As an initial matter, Patent Owner has not explained persuasively how one of ordinary skill in the art would understand what types of relations are "quick-reference" and what "similarity among data" means.

Additionally, Patent Owner's proposed construction refers to certain types of output generated by proximity indexing techniques. As explained by the '571 Patent specification, proximity indexing involves indexing many types of data including "very large databases" (Ex. 1001, 27:24), documents in databases of "law firms, businesses, government agencies, etc." (*id*. at 27:43–46), and "shapes" (*id*. at 27:63), which can be used to "compare line drawings of known pottery to a newly discovered archeological find" (*id*. at 28:15–16) and "scan through and compare police composite drawings" (*id*. at 28:17–18), as well as perform other searches (*id*. at 28:12–22).

Regarding defining the term "proximity indexing," the specification of the '571 Patent states "Proximity Indexing is a method of preparing data in a database for subsequent searching." Ex. 1001, 3:59–60. The '571 Patent specification further describes proximity indexing with respect to a program that "indexes (or represents) data in a locally located database or a remotely located database." *Id*. at 4:5–7; *see also id*. at 3:66–67 ("The Proximity Indexing Application Program indexes (or represents) the database in a more useful format . . . to efficiently search the database.")

The specification of the ’571 Patent provides additional specificity regarding proximity indexing including that it “organize[s] and categorize[s] data stored in databases.” Ex. 1001, 13:41–43. The specification of the ’571 Patent, furthermore, describes proximity indexing as indexing data “based on their degree of relatedness . . . to one another.” *Id*. at 13:47–50.

The ’571 Patent specification also provides exemplary types of proximity indexing, including generating cluster links. In particular, the ’571 Patent specification states, “[t]he following describes a preferred cluster link generator [] which implements a specific type of patter[n]er or clustering system for use along or in conjunction with *other proximity indexing subroutines*.” *Id*. at 21:30–33 (emphasis added); *see also id*. at 4:20–22 (“The Proximity Indexing Application Program then *clusters* related contiguous paragraphs into sections.”) (emphasis added).

Upon review, we construe “proximity indexing,” in light of the specification of the ’571 Patent to mean preparing data in a database for subsequent searching by organizing and categorizing the data based on their degree of relatedness to one another. Additionally, we determine that “proximity indexing” encompasses examples set forth in the specification of the ’571 Patent including generating a set of candidate cluster links.

6. “cluster analyzing”

The term “cluster analyzing” is recited, for example, in claim 12. Patent Owner contends that “cluster analyzing” at least involves generating cluster links. PO Resp. 14. Petitioner does not contest Patent Owner’s contention. Reply 2.

Patent Owner supports its contention by relying on its Declarant, Dr. Paul S. Jacobs. PO Resp. 14 (citing Ex. 2113 ¶ 51). Dr. Jacobs states that

Figure 14B of the ’571 Patent specification illustrates a flow chart for performing “cluster analyzing,” as recited in claim 12. Ex. 2113 (citing Ex. 1001, 49:38–40). The text of the ’571 Patent on which Dr. Jacobs relies, however, does not state that Figure 14B is a flow chart for performing cluster analyzing. Instead, the ’571 Patent states, “FIG. 14B describes the embodiment of the invention which executes 3020 the cluster link generator algorithm 2044 to generate direct and indirect links 2004 to find the set of candidate cluster links.” Ex. 1001, 49:37–40; *see also id*. at 10:5–7 (“FIG. 14B is a high level diagram of a method for searching, indexing, and displaying data stored in a network using the cluster generating algorithm.”)

Figure 3A of the ’571 Patent describes an “overall procedure” (Ex. 1001, 16:37) for an algorithm that indexes and formats data (*id*. at 16:33–38). Figure 3A includes a step that simply states “CLUSTER AND SECTION.” Ex. 1001, Fig. 3A. The specification of the ’571 Patent also describes the “real power” of the indexing algorithm of the patent as “allow[ing] one to identify ‘groups’ or ‘clusters’ of interrelated cases.” *Id*. at 16:26–28. The ’571 Patent specification additionally indicates that its indexing algorithm used with the World Wide Web is not limited to the algorithm of Figure 14B, “[t]his computerized system for researching data is also effective with any type of internal or global network application (see generally FIGS. 14A and 14B).” *Id*. at 48:19–21; *see also id*. at 21:30–33 (“The following describes a preferred cluster link generator 2044 which implements a specific type of patter[n]er or clustering system for use alone or in conjunction with other proximity indexing subroutines.”)

Upon review, we construe "cluster analyzing," in light of the specification of the '571 Patent to mean identifying clusters. We do not agree that "cluster analyzing" involves at least generating cluster links.

7. "web page"

In the Decision to Institute, we adopted Patent Owner's construction that a "web page" is "a document on the World Wide Web." Inst. Dec. 11. Patent Owner now contends that "[a] page corresponds to a textual object in a network, while a node is a representation of a textual object." PO Resp. 21–22 (citing Ex. 1001, 12:40–45). We evaluate whether the correct interpretation of "web page" is a document on the World Wide Web that corresponds to a textual object in a network, in contrast to a node, which is a representation of a textual object.

In the excerpt of the '571 Patent specification cited by the Patent Owner, a node is described as follows.

> A node 2008 is any entity that can be represented by a box on a display 38 such as a GUI 70. A node 2008 might be, for example, an object in a database 54, a portion of an object in a database 54, a document, a section of a document, a World Wide Web page, or an idea or concept, such as a topic name.

Ex. 1001, 12:40–45.

Because the specification of the '571 Patent states that a node might be a World Wide Web page (*id*.), we determine that the correct interpretation of "web page" should not distinguish a web page from a node.

Our construction of "web page" is consistent with the specification of the '571 Patent, which states, "[a] web page is usually a document." *Id*. at 48:30–31. Accordingly, we determine that our prior interpretation of "web page" as "a document on the World Wide Web" is correct.

8. Order of Steps

Patent Owner contends that Petitioner has not shown that Fox Thesis and Fox SMART teach the step of deriving actual cluster links, as recited in claim 21. PO Resp. 48–49. Patent Owner's contention is based, in part, on claim 21 reciting a specific order of steps. *Id*. In particular, claim 21 recites "generating a set of candidate cluster links for nodes indirectly related to the chosen node" and "deriving actual cluster links from the set of candidate cluster links." Patent Owner's contention is based on these steps being performed in the order outlined above.

Petitioner does not take a position on whether the elements of the challenged claims require the specific arrangement argued by Patent Owner. Petitioner contends that the asserted prior art teaches the steps as arranged in the challenged claims. *See e.g.*, Reply 8.

We determine that actual cluster links can be derived from candidate cluster links only if the candidate cluster links already have been generated. This determination is consistent with the specification of the '571 Patent. In particular, the specification of the '571 Patent explains that candidate cluster links are the set of all possible cluster links between a search node and a target node. Ex. 1001, 21:67–22:3. The '571 Patent specification continues that actual cluster links are a subset of the candidate cluster links, which meet certain criteria. *Id.* at 22:2–4.

We agree with Patent Owner that claim 21 recites a specific arrangement with respect to the two steps of generating candidate cluster links and deriving actual cluster links from the candidate cluster links. In particular, actual cluster links are derived from candidate cluster links after the candidate cluster links have been generated.

B. Alleged Obviousness of claims 12, 21, and 22 over Fox Thesis, Fox SMART, and Envision

Petitioner contends that claims 12, 21, and 22 of the '571 Patent are unpatentable, under 35 U.S.C. § 103, as they would have been obvious over the combination of Fox Thesis, Fox SMART, and Envision. Pet. 9–21. In support of the asserted ground of unpatentability, Petitioner sets forth the teachings of the cited prior art, provides detailed claim charts, and cites to the declaration of Dr. Fox (Ex. 1003 ¶¶ 218–235), explaining how each limitation is taught in the cited prior art combination. Pet. 9–21.

The claim chart persuasively reads all elements of each of claims 12 and 22 onto the teachings of Fox Thesis, Fox SMART, and Envision, taken together. Despite the counter-arguments in Patent Owner's Response, and the evidence cited therein, which we have also considered, Petitioner has shown by a preponderance of the evidence that claims 12 and 22 of the '571 Patent are unpatentable, under 35 U.S.C. § 103, as they would have been obvious over the combination of Fox Thesis, Fox SMART, and Envision. Petitioner, however, has not shown by a preponderance of the evidence that claim 21 of the '571 Patent is unpatentable, under 35 U.S.C. § 103, as obvious over the combination of Fox Thesis, Fox SMART, and Envision.

1. Fox Thesis

Fox Thesis describes improving query and document representation schemes for information retrieval. Ex. 1012, 261. In particular, useful types of bibliographic data are incorporated into a model to test clustering and retrieval functions. *Id.* at 164.

Bibliographic connections between articles are illustrated for an exemplary set "O" of documents, which are represented by letters A through

G. Ex. 1012, 165–66; Fig. 6.2. This exemplary set "O" includes direct and indirect citation references. *Id.* at 166–67; Table 6.2.

Based on the reference pattern for a set of documents, various measures of the interconnection between the documents may be derived. Ex. 1012, 166. For example, weights are assigned "based upon integer counts" for bibliographically coupled documents. *Id.* at 167.

Citation submatrices represent reference or citation information. Ex. 1012, 169–70. For example, submatrix *bc* represents bibliographically coupled reference information and submatrix *cc* represents co-citation reference information. *Id*. at 169–72; Figs. 6.3–6.5.

2. Fox SMART

The System for Mechanical Analysis and Retrieval of Text (SMART) is described as a project for designing a fully automatic document retrieval system and for testing new ideas in information science. Ex. 1013, 3. Fox SMART describes an implementation in which software components of SMART are implemented in the C Programming Language and run under the UNIX™ operating system on a VAX™ 11/780 computer. *Id.* at 1, 4.

In SMART, an automatic indexing component constructs stored representations of documents. Ex. 1013, 3. Bibliographic information is used to enhance document representations. *Id*. at 29. The SMART system may process basic raw data, such as an exemplary "N" collection of articles and citation data describing which articles are cited by others. *Id.*at 29–30. The exemplary input data includes indirect citation relationships, such as bibliographic coupled and co-citation relationships. *Id.* at 30–32.

A clustering algorithm is processed by the SMART system as follows: "[t]he clustering algorithm produces a hierarchy where all *N* documents in a

collection end up as leaves of a multilevel tree . . . Clustering proceeds by adding documents one by one starting with an initially empty tree." Ex. 1013, 44. Adding documents involves finding the proper place to insert, attaching the incoming entry appropriately, and recursively splitting overly large nodes. *Id*. at 47.

3. Envision

Envision describes integrating retrieval systems with the World Wide Web. Ex. 1006, 482. In particular, Envision describes the World Wide Web as a wide area hypertext system and indicates that hypertext and hypermedia linking must be coordinated with various approaches of search and retrieval. *Id*.

4. Claim 12

Petitioner's claim chart persuasively reads all elements of claim 12 onto the combined teachings of Fox Thesis, Fox SMART, and Envision. Pet. 11–16 (citing Ex. 1006, 482–84, 487, 482, Fig. 4; Ex. 1012, 164, 166–68, 176, 181, 186, 187, 193, 195, 199–200, 207–09, 213, 237–39; Ex. 1013, 13–15, 27, 29, 30–32, 36–38, 41, 44, 46, 47, 49, 50, 53–54; 1003 ¶¶ 159–164.) For instance, the combination of Fox Thesis, Fox SMART, and Envision teaches "identifying Universal Resource Locators for the web pages," as recited in claim 12. In particular, Fox SMART teaches citation data indicating which articles cite articles, point to cited articles, or point away from the referring article. Ex. 1013, 30 ("The set captures the details of which of the *N* collection articles are cited by others; the arrow in (4-1) points from referring to cited article.")

As an additional example, the combination of Fox Thesis, Fox SMART, and Envision teaches "cluster analyzing Universal Resource

Locators for indirect relationships," as recited in claim 12. Both Fox SMART (Ex. 1013, 44) and Fox Thesis (Ex. 1012, 193) teach a clustering algorithm that produces a hierarchy, or classification, in which all of the *N* documents in the collection end up as leaves of a multilevel tree. The clustering algorithm is performed using indirect relationships, including coupling and co-citation relationships. *See e.g.*, Ex. 1013, 46 ("the overall similarity between documents can be determined based on available subvectors . . . ."); *see also id*. at 31 ("Constructing $\overrightarrow{bc}$ Subvectors . . . . hav[ing] *n* units of coupling . . . .").

As to whether Petitioner has satisfied the requirements for combining the teachings of Fox Thesis, Fox SMART, and Envision, we determine that Petitioner has articulated sufficient reasoning with a rational underpinning as to why one of ordinary skill in the art would have combined the retrieval systems taught in Fox Thesis and Fox SMART with documents stored as web pages and linked by hypertext and hypermedia linking taught in Envision. *See KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). Petitioner's Declarant, Dr. Edward A. Fox, states that when the World Wide Web became available, it was obvious for researchers in the field of information retrieval to study and build systems using the World Wide Web. Ex. 1003 ¶ 223. We give Dr. Fox's statement substantial weight because it is consistent with the teaching in Envision of the emergence of the World Wide Web and coordinating hypertext and hypermedia linking with various approaches of search and retrieval. Ex. 1006, 482.

Additionally, Dr. Fox states it would have been obvious to one of ordinary skill in the art to combine the techniques of Envision, Fox Thesis,

and Fox SMART because Envision was built on, and was itself, a follow-on work to Fox Thesis and Fox SMART. Ex. 1003 ¶¶ 154–55, 224–30. We give Dr. Fox's statement substantial weight, because his statement is consistent with the teachings in Fox Thesis, Fox SMART, and Envision. *See* Ex. 1006, 482 ("users prefer vector and feedback methods"), 491 (citation to prior work of Dr. Fox including a text regarding integrating search and retrieval with hypertext); Ex. 1012, 343 (Fox Thesis cites to Fox SMART); Ex. 1013, 84 (Fox SMART cites to Fox Thesis).

We now address Patent Owner's counter-arguments in turn. Patent Owner, in reliance on its Declarant, Dr. Jacobs, contends that Fox Thesis, Fox SMART, and Envision, taken together do not teach "identifying Universal Resource Locators for the web pages" and "cluster analyzing the Universal Resource Locators for indirect relationships," as recited in claim 12. PO Resp. 14.

First, Patent Owner contends, "[t]he prior art in general is devoid of any teaching or suggestion of applying citation analysis to the web or to hypertext networks prior to 1996." PO Resp. 15–16 (citing Ex. 2113 ¶ 89). Patent Owner acknowledges "[t]he Web was known before 1996, and hypertext had been known long before the Web." *Id.* at 15. Patent Owner's Declarant, Dr. Jacobs, however, states, "[w]hile it may have been obvious to combine some information retrieval methods with the Web in 1996 . . . the inventive step of the '571 patent of treating Web links as citations was by all indications non-obvious." Ex. 2113 ¶ 89.

Envision, however, teaches applying citation analysis to hypertext systems, including the World Wide Web.

> We are beginning to see the emergence of *wide area hypertext systems* (Yankelovich, 1990) *like the WorldWideWeb (WWW)*,

> that carry this concept forward into a distributed environment. Clearly, *we must coordinate hypertext and hypermedia linking with the various approaches to search and retrieval* (Fox et al., 1991b). *One approach* is the idea of information graphs (including hypergraphs), where *objects of all types are interrelated by links or arcs that capture not only citation (reference)* but also inheritance, inclusion, association, synchronization, sequencing, *and other relationships*.

Ex. 1006, 482 (emphasis added).

Patent Owner, in reliance on Dr. Jacobs, states that the above-referenced excerpt of Envision is not sufficient because, "[n]owhere in the referenced section[] does it say that hyperlinks or hypertext would be treated as citations for purposes of analysis." PO Resp. 18 (citing Ex. 2113 ¶ 92). Patent Owner and Dr. Jacobs's statements are inaccurate representations of the reference. The approach taught in Envision is interrelating "objects of all types," including objects on the World Wide Web, so as to capture citation relationships (Ex. 1006, 482).

Nonetheless, Patent Owner addresses each of the references separately. PO Resp. 15–21. One cannot show non-obviousness by attacking references individually where the challenge is based on a combination of references. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986); *In re Keller*, 642 F.2d 413, 426 (CCPA 1981). As discussed above, we find that Petitioner has articulated sufficient reasoning with a rational underpinning as to why one of ordinary skill in the art would have combined the teachings of Fox Thesis, Fox SMART, and Envision.

Second, Patent Owner contends that "the deficiencies of the cited art" are evident because Petitioner's Declarant, Dr. Fox, improperly conflates "page" with "node." PO Resp. 21. As discussed above with respect to claim

construction, we determine that the proper interpretation of "web page" should not distinguish a web page from a node.

Third, Patent Owner, relying on its Declarant, contends that "Fox SMART does not specifically teach using bc and cc in clustering, but suggests that some combination of terms with 'bibliographic connections' can be used." PO Resp. 24 (citing Ex. 2113 ¶ 194). Patent Owner's Declarant, however, provides conclusory statements that do not take into account all of the relevant teachings of Fox SMART. We find that Fox SMART teaches that the clustering algorithm is performed using indirect relationships based on the following teachings. First, Fox SMART teaches constructing bibliographic and co-citation subvectors. Ex. 1013, 30–32. Bibliographic and co-citation are examples of indirect relationships between documents. *Id*. Second, Fox SMART teaches determining a similarity between documents based on these subvectors. *Id*. at 46. Third, Fox SMART teaches that the determined similarity is used in the clustering process to form the tree. *Id*. at 49–50.

Patent Owner additionally contends that the combination of Fox Thesis, Fox SMART, and Envision does not teach "displaying identities of web pages." PO Resp. 27. We, however, find that Petitioner has shown by a preponderance of the evidence that the combination of Fox Thesis, Fox SMART, and Envision teaches displaying identities of web pages, as recited in claim 12. The SMART system presents documents in a retrieved cluster to the user. Ex. 1013, 54 ("most of the documents in a retrieved cluster are presented to the user . . . .") In addition, the Envision system displays search results. Ex. 1006, 487 ("Central to the search results display design is the concept of viewing each document (item) as a node within the Envision

database graph . . . . The search results design provides a graphical, direct manipulation presentation of documents found by the search . . . ."). Patent Owner contends that Petitioner fails to show displaying the results because Petitioner fails to show the claimed process. For the reasons given above, we are not persuaded.

Patent Owner's remaining contentions relate to whether the Petitioner has satisfied the requirements for combining the teachings of Fox Thesis, Fox SMART, and Envision. For example, Patent Owner contends that Petitioner improperly relies on hindsight bias. PO Resp. 28.

As indicated above, we determine that Petitioner has articulated sufficient reasoning with a rational underpinning as to why one of ordinary skill in the art would have combined the retrieval systems taught in Fox Thesis and Fox SMART with documents stored as web pages and linked by hypertext and hypermedia linking taught in Envision. *See KSR*, 550 U.S. at 398. For instance, in addition to the explicit suggestion in Envision (*see* Ex. 1006, 482), Dr. Fox wrote or was co-author of each of Fox Thesis, Fox SMART, and Envision. *See* Ex. 1006, 480; Ex. 1012, iii; Ex. 1013, 1.

Patent Owner further contends that processing web based links in the manner claimed would not have been predictable at the time of the invention of the '571 Patent. PO Resp. 30. In particular, Patent Owner contends that Google's introduction of its algorithms took experts in the field by surprise and was considered a major breakthrough. PO Resp. 30–31 (citing Ex. 2113 ¶ 177; Ex. 2114 ¶¶ 22, 51–63). Patent Owner's contention is based on its view that the combined teachings of Fox Thesis, Fox SMART, and Envision are not sufficient because they do not teach computerized searching of an electronic database. PO Resp. 32; *see also* Tr. 49:15–18 ("[T]he Fox papers

by themselves don't get you there . . . every one . . . is directed to printed articles, not an electronic database."). According to Patent Owner, the prior art cited by Petitioner teaches experiments that are not directed to web based documents, "but rather are directed toward limited experimentation with bibliographic relationships existing among paper documents." PO Resp. 1.

We disagree with Patent Owner. For example, Fox SMART teaches an implementation in which software components of SMART are implemented in the C Programming Language and run under the UNIX™ operating system on a VAX™ 11/780 computer. Ex. 1013, 1, 4. In SMART, an automatic indexing component constructs stored representations of documents. *Id*. at 3. In light of the various teachings of Fox Thesis, Fox SMART, and Envision discussed herein, we determine that Fox Thesis, Fox SMART, and Envision, taken together, teach computerized searching of an electronic database.

Patent Owner contends that Google's search engine using its PageRank algorithm is objective indicia of non-obviousness. PO Resp. 56–59. As an initial matter, Patent Owner's contentions again appear to be based on its view that the combined teachings of Fox Thesis, Fox SMART, and Envision are not sufficient because they do not teach computerized searching of an electronic database. *Id.* at 56 ("Link analysis technology applied to the Web, as claimed in the '571 patent and embodied in PageRank, satisfied a long felt need for improved *computerized search*." (Emphasis added (citation omitted).)); Tr. 60:24–63:2 ("[I]t certainly wouldn't have been obvious to one of ordinary skill based on Fox's work to extend these ideas from this paper collection to electronic databases."). For the reasons discussed above, we disagree with Patent Owner's view and

determine that Fox Thesis, Fox SMART, and Envision, taken together, teach computerized searching of an electronic database.

Furthermore, we note that Patent Owner has not shown that the asserted success of a commercial embodiment of the '571 patent actually resulted from features recited in the claims of the '571 patent. As explained in the Declaration of Dr. Jacobs, Google's "legendary insight was to rate pages based on the number and importance of links that pointed to them." Ex. 2113 ¶ 183 (citing Ex. 2045). Patent Owner refers to the patented technology of the '571 patent as solving a problem of distinguishing relevant search results from irrelevant results by analyzing non-semantical and indirect citation relationships. PO Resp. 57. For the reasons discussed above with respect to claim construction, Patent Owner has not explained persuasively or provided sufficient evidence to support limiting claim 12 to analysis involving non-semantical relationships. Nonetheless, Dr. Jacobs statement regarding Google's technology applies to direct citations. Also, Patent Owner's characterization of Google's technology indicates that "importance" of links is used to rate pages, which is too vague to be considered as persuasive evidence of a nexus between Google's technology and claim 12.

Patent Owner also points to Google's license of the '571 Patent. PO Resp. 56. Patent Owner, however, admits that this license resulted in the settlement of a lawsuit (*id.*), which without additional contextual evidence, weighs against finding a nexus.

Additionally, we determine that in light of the weak showing of secondary considerations, the evidence of obviousness with respect to Fox Thesis, Fox SMART, and Envision, is sufficient to support the conclusion

that claim 12 would have been obvious. *See Leapfrog Enterprises, Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1162 (Fed. Cir. 2007). As discussed above, Petitioner has provided a strong case of obviousness. For example, Petitioner has pointed to an explicit suggestion in Envision to combine the references (Ex. 1006, 482) and has provided declaration testimony of Dr. Fox (Ex. 1003 ¶¶ 154–55, 223–30), who wrote or was co-author of each of the references (Ex. 1006, 480; Ex. 1012, iii; Ex. 1013, 1).

Accordingly, even after considering the counter-arguments in Patent Owner's Response, and the evidence cited therein, we find that Petitioner has shown by a preponderance of the evidence that claim 12 is unpatentable as it would have been obvious over the combination of Fox Thesis, Fox SMART, and Envision.

5. Claim 21

Petitioner points to teachings in Fox Thesis and Fox SMART of computing a similarity to be used in a clustering algorithm to satisfy the following element of claim 21, "determining hyperjump data from within the accessed hyperjump data that has an indirect reference to the chosen node using the identified hyperjump data, wherein the step of determining comprises non-semantically generating a set of candidate cluster links for nodes indirectly related to the chosen node using the hyperjump data, assigning weights to the candidate cluster links and deriving actual cluster links from the set of candidate cluster links based on the assigned weights." Pet. 17–18 (citing Ex. 1012, 166–68, 170–72, 174–77, 181, 195, 272; Ex. 1013, 30–32, 36, 46; Ex. 1003 ¶¶ 161–63, 172–174). In particular, according to Petitioner's Declarant, a tree resulting from the clustering algorithm, which includes "all" the documents in the collection teaches the

claimed set of generated candidate cluster links. Ex. 1003 ¶ 160 ("Fox SMART . . . disclose[s] **generating candidate cluster links** . . . [f]or example, the particular clustering analysis that I employed builds a tree.").

Petitioner, however, points to this same clustering algorithm for deriving actual cluster links from the candidate cluster links, as recited in claim 1. Pet. 17–18 (citing Ex. 1003 ¶ 162). In particular, Petitioner's Declarant points to Fox SMART's teaching of concentration tests performed as part of the clustering algorithm. Ex. 1003 ¶ 162 (citing Ex. 1013, 49–51). As taught in Fox SMART:

> Candidate clusters which pass the concentration test are those formed by having enough highly correlated pairs in the proposed cluster. . . .
>
> "Uncour" repeatedly considers the remaining cluster that is most heavily covered by other clusters. If the overlap is too much, it is deleted. Eventually only clusters that pass all appropriate tests are accepted.

Ex. 1013, 50–51.

Petitioner's Declarant, Dr. Fox, testifies that Fox SMART derives a subset because "clusters that do not pass all the concentration and overlap tests are deleted." Ex. 1003 ¶ 162 (citing Ex. 1013, 51). Dr. Fox supplements his testimony by stating, "Fox SMART teaches that potential (i.e., candidate) clusters are rejected ('deleted') if they fail any one of these tests." Ex. 1032 ¶ 281 (citing Ex. 1005, 51). Dr. Fox further states that claim 21 does not require that candidate cluster links be deleted. *Id*.

Patent Owner contends that Dr. Fox incorrectly states that clusters that do not pass all of the tests are deleted. PO Resp. 33 (citing Ex. 2113 ¶¶ 82–103). Patent Owner's Declarant, Dr. Jacobs, provides his analysis of various aspects of the clustering process and concludes that the clustering algorithm,

including the concentration tests noted above, does not result in a subset. Ex. 2113 ¶¶ 82–103. In particular, Dr. Jacobs states that the clustering process involves accepting trial clusters, which then must pass the concentration tests to become candidate clusters. *Id*. ¶ 91. Dr. Jacobs also states that clusters are deleted only in the case of overlap with a new group of clusters formed from splitting. *Id*. ¶ 88. Additionally, Dr. Jacobs states that moving orphans to the garbage cluster does not result in deleting those orphans or creating a subset. *Id*. ¶ 101. Dr. Jacobs, instead, states that the orphans may not be garbage in the end as they may be assigned a node as new documents are added to the tree. *Id*.

We determine that the statements of Patent Owner's Declarant are consistent with Fox SMART's teaching of clustering. Fox SMART teaches that the clustering process initializes a new tree as empty, adds documents to the tree, and recursively splits overly large nodes of the tree. Ex. 1013, 47. Fox SMART states that splitting is accomplished by the following procedures div_cent, cleave, and uncour. *Id*. at 49.

Fox SMART further states:

> First a complete similarity matrix is formed based on the pairwise combined similarity values. "Cleave" then identifies a plausible clustering except that no limit on overlap is considered. "Uncour" compensates for that by first deleting clusters that exhibit too much overlap with remaining clusters, and secondly by assigning the others to a "garbage" or "orphan" cluster.

Id.

As taught in Fox SMART, the concentration tests that are cited by Petitioner are performed as part of forming the cluster tree. *Id*. Petitioner does not identify a teaching in Fox SMART of deleting clusters other than

those that simply overlap, or duplicate, other clusters. Overlapping clusters are deleted following a routine that identifies plausible clustering with "no limit on overlap." *Id*. Additionally, Fox SMART includes code that collects orphans. *Id*. at 52. Petitioner, however, has not shown that Fox SMART teaches a subset, which does not include these orphans.

Dr. Fox's supplemental testimony that "Fox SMART teaches that potential (i.e., candidate) clusters are rejected ('deleted') if they fail any one of these tests" (Ex. 1032 ¶ 281 (citing Ex. 1005, 51)) suggests that the terms "rejected" and "deleted" are the same. We do not agree. In view of Dr. Fox's testimony in both of his Declarations and the testimony of Dr. Jacobs, we find that one of ordinary skill in the art reasonably would have understood Fox SMART as teaching deleting overlap that had been generated by the immediately preceding software routine. Additionally, we find that one of ordinary skill in the art reasonably would have understood Fox SMART as teaching that the tests referred to by Dr. Fox are processed during formation of the tree. We, therefore, determine that Dr. Fox's testimony does not address persuasively the requirement in claim 21 of deriving a subset of the already generated candidate cluster links.

In light of the Declaration by Patent Owner's Declarant, Dr. Jacobs, we determine that Petitioner has not shown by a preponderance of the evidence that the combination of Fox Thesis, Fox SMART, and Envision teaches deriving actual cluster links. For the foregoing reasons, Petitioner has not established that claim 21 of the '571 Patent is unpatentable, under 35 U.S.C. § 103, as obvious over the combination of Fox Thesis, Fox SMART, and Envision.

6. Claim 22

Petitioner's claim chart persuasively reads all elements of claim 22 onto the teachings of Fox Thesis, Fox SMART, and Envision, taken together. Pet. 11–21 (citing Ex. 1006, 482–84, 487, 482, Fig. 4; Ex. 1012, 164, 166–68, 170–71, 176, 181, 186, 187, 193, 195, 199–200, 207–09, 213, 237–39; Ex. 1013, 13–15, 26–27, 29–32, 35–38, 41, 44, 46, 47, 49, 50, 53–54; 1003 ¶¶ 159–164.) For instance, we determine that Petitioner has shown by a preponderance of the evidence that the combination of Fox Thesis, Fox SMART, and Envision teaches hyperjump data that has a direct reference and an indirect reference to a chosen node. For example, Fox Thesis teaches an exemplary set "O" of documents represented by letters A through G, which includes direct and indirect citation references. Ex. 1012, 165–67; Table 6.2. Fox SMART teaches data comprising a set of tuples that captures which of the articles in a collection are cited by other articles. Ex. 1013, 29–32. Fox SMART further teaches that these data include direct and indirect citations or references. *Id*. at 30–32. Additionally, as discussed above with respect to claim 12, Fox SMART teaches constructing bibliographic and co-citation subvectors. *Id*. Furthermore, according to the teachings of Envision, retrieval technologies should be coordinated with World Wide Web technologies, including hypertext and hypermedia linking. Ex. 1006, 482.

We also determine that Petitioner has shown by a preponderance of the evidence that the combination of Fox Thesis, Fox SMART, and Envision teaches determining hyperjump data from within the accessed hyperjump data that has an indirect reference to the chosen node by proximity indexing the identified hyperjump data, as recited in claim 22. As discussed above

with respect to claim construction, "proximity indexing" means preparing data in a database for subsequent searching by organizing and categorizing the data based on their degree of relatedness to one another. Additionally, as discussed above, an example of proximity indexing is generating a set of candidate cluster links.

Both Fox SMART (Ex. 1013, 44) and Fox Thesis (Ex. 1012, 193) teach a clustering algorithm that produces a hierarchy, or classification, in which all of the *N* documents in the collection end up as leaves of a multilevel tree. We also find that Fox SMART teaches that the clustering algorithm is performed using indirect relationships because Fox SMART teaches determining a similarity between documents based on the biobligraphic and co-citation subvectors (Ex. 1013, 46) and using that determined similarity in the clustering process to form the tree (*id*. at 49–50).

We further determine that Petitioner has also shown by a preponderance of the evidence displaying one or more determined hyperjump data. For example, the SMART system presents documents in a retrieved cluster to the user. Ex. 1013, 54 ("most of the documents in a retrieved cluster are presented to the user."). Additionally, the Envision system displays search results. Ex. 1006, 487 ("Central to the search results display design is the concept of viewing each document (item) as a node within the Envision database graph. . . . The search results design provides a graphical, direct manipulation presentation of documents found by the search . . . ."). Furthermore, regarding recitation of "generating a source map" in claim 22, Envision teaches a graphic view window that allows each

document to be viewed as a node within the Envision database graph. Ex. 1006, 487.

Additionally, for the reasons discussed above with respect to claim 12, we determine that Petitioner has satisfied the requirements for combining the teachings of Fox Thesis, Fox SMART, and Envision.

Patent Owner argues that Petitioner has not made its showing for substantially similar reasons that Patent Owner provided for claim 12. PO Resp. 50–51. For the reasons discussed above with respect to claim 12, we disagree.

Patent Owner also contends that the cited art does not teach or suggest proximity indexing the identified hyperjump data. PO Resp. 51. Patent Owner relies on its Declarant for stating that Fox SMART cannot be considered to teach identifying direct reference data for nodes in a network. Pet. 52 (citing Ex. 2113 ¶ 236). Petitioner's Declarant, however, does not discuss Fox SMART's teaching of data comprising a set of tuples that captures which of the articles in a collection are cited by other articles (Ex. 1013, 29–32) including direct citations, in which k=1 (*id*. at 30) and indirect citations having *n* units of coupling (*id*. at 31).

For the foregoing reasons, Petitioner has shown by a preponderance of the evidence that claim 22 of the '571 Patent is unpatentable under 35 U.S.C. § 103(a) as it would have been obvious over Fox Thesis, Fox SMART, and Envision.

C. Motion to Exclude

Patent Owner filed a Motion to Exclude (Paper 44) in which Patent Owner seeks to exclude the Reply Declaration of Dr. Edward A. Fox (Ex. 1032) ("Reply Fox Declaration") submitted with Petitioner's Reply. Patent

Owner contends that the Reply Fox Declaration should be excluded in accordance with Federal Rule of Evidence ("FRE") 702. Paper 44, 1. In particular, Patent Owner contends that the Reply Fox Declaration should be excluded because FRE 702 precludes admission of expert testimony unless "the testimony is based on sufficient facts or data, the testimony is the product of reliable principles and methods, and the expert has reliably applied the principles and methods to the facts of the case." *Id*. With regard to this objection, we note that under 37 C.F.R. § 42.65(a), "[e]xpert testimony that does not disclose the underlying facts or data on which the opinion is based is entitled to little or no weight." Consequently, this objection properly goes to the weight to be given to Dr. Fox's testimony, and not to its admissibility.

It is within our discretion to assign the appropriate weight to the testimony offered by Dr. Fox. *See, e.g., Yorkey v. Diab*, 601 F.3d 1279, 1284 (Fed. Cir. 2010) (holding the Board has discretion to give more weight to one item of evidence over another "unless no reasonable trier of fact could have done so"); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1368 (Fed. Cir. 2004) ("[T]he Board is entitled to weigh the declarations and conclude that the lack of factual corroboration warrants discounting the opinions expressed in the declarations."). When weighing evidence, we are capable of determining whether the prior art references render obvious the challenged claims without being confused, misled or prejudiced by Dr. Fox's testimony.

Patent Owner also contends that Dr. Fox has engaged in a pattern of giving false testimony. Paper 44, 1. For example, Patent Owner argues that that Dr. Fox's statements are false because Fox Thesis and Fox SMART

discuss paper documents, not an electronic database. *Id*. at 12. For the reasons discussed above with respect unpatentability, we do not agree.

Patent Owner additionally contends that Dr. Fox's opinions are based on incorrect constructions. *See e.g.*, Paper 44, 13. However, the construction of claim terms in a Decision to Institute is not final, and is reviewable in light of both parties' subsequent briefings and oral arguments. Inst. Dec. 9–10, 29.

For the reasons given, we deny Patent Owner's Motion to Exclude.

D. Motions to Seal

Patent Owner filed a Motion to Seal (Paper 30) the Declaration of Dr. Amy N. Langville ("Langville Declaration") filed as Exhibit 2114. Petitioner filed a Motion to Seal (Paper 37) the Transcript of the Deposition of Amy N. Langville, Ph.D. ("Langville Transcript") filed as Exhibit 1033. Both of these motions are unopposed.

Regarding Patent Owner's Motion to Seal, according to Patent Owner paragraphs 25, 112, and 113 of the Langville Declaration makes reference to certain facts about confidential licenses to the patents under review. Paper 30, 3. Additionally, Patent Owner contends that this information has not been made, and will not be made, public. *Id*.

Regarding Petitioner's Motion to Seal, according to Petitioner, Patent Owner has designated the transcript as confidential. Paper 37, 3. To avoid public disclosure, therefore, Petitioner submits sealing the Langville Transcript is appropriate. *Id*.

There is a strong public policy in favor of making information filed in *inter partes* review proceedings open to the public. *See Garmin Int'l v. Cuozzo Speed Techs., LLC*, Case IPR2012-00001 (PTAB March 14, 2013)

(Paper 34). Under 35 U.S.C. § 316(a)(1), the default rule is that all papers filed in an *inter partes* review are open and available for access by the public.[2] The standard for granting a motion to seal is "good cause." 37 C.F.R. § 42.54. A moving party bears the burden of showing that the relief requested should be granted. 37 C.F.R. § 42.20(c).

Regarding Patent Owner's Motion to Seal, Patent Owner, as the moving party, has failed to carry its burden. Patent Owner identifies only three paragraphs in the Langville Declaration that purportedly contain confidential information. However, Patent Owner has not pointed to proof in the record that any information contained in these paragraphs is confidential. Additionally, although Patent Owner contends that this information has not been made, and will not be made, public, Patent Owner presented this information during the hearing on October 30, 2014, which was open to the public. *See* Tr. 54:12–25. We, therefore, determine that Patent Owner has not met its burden of proof.

Regarding Petitioner's Motion to Seal, Patent Owner's designation of the transcript as confidential is not sufficient to show that the transcript contains confidential information. We, therefore, determine that Petitioner has not met its burden of proof.

We recognize a denial of the motions to seal would immediately unseal the material that Patent Owner desires to remain confidential and the effect would be irreversible. Therefore, rather than denying the motions at

[2] Additionally, we note that confidential information subject to a protective order ordinarily would become public 45 days after final judgment in a trial. Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,761 (Aug. 14, 2012). However, after denial of a petition to institute a trial or after final judgment in a trial, a party may file a motion to expunge confidential information from the record. 37 C.F.R. § 42.56.

this time, we will provide Patent Owner and Petitioner one week to (1) withdraw the motions to seal and request that we expunge Exhibits 2114 and 1033, or (2) withdraw the motions to seal, request that we expunge Exhibits 2114 and 1033, and replace them with redacted versions that leave out the confidential information.

We note that we have not relied on the three paragraphs of the Langville Declaration that Patent Owner identifies as containing allegedly confidential information. Other than this section discussing the Motion to Seal, our only mention of the Langville Declaration is a citation to the Patent Owner Response that includes a page number cite to the Langville Declaration.

III. CONCLUSION

We conclude that Petitioner has shown by a preponderance of the evidence that claims 12 and 22 of the '571 Patent are unpatentable under 35 U.S.C. § 103, as they would have been obvious over Fox Thesis, Fox SMART, and Envision, taken together. We conclude that Petitioner has not shown that claim 21 of the '571 Patent is unpatentable. Claims 26, 28, and 31 are not at issue in this trial.[3]

This is a final written decision of the Board under 35 U.S.C. § 318(a). Parties to the proceeding seeking judicial review of this decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

[3] In the Decision to Institute, we declined to institute an *inter partes* review of claims 26, 28, and 31 because we were not persuaded that Petitioner had shown that there was a reasonable likelihood of prevailing on its challenges to these claims. Inst. Dec. 2, 30.

IV. ORDER

For the reasons given, it is

ORDERED that claims 12 and 22 of U.S. Patent No. 6,233,571 are determined by a preponderance of the evidence to be unpatentable;

FURTHER ORDERED that claim 21 of U.S. Patent No. 6,233,571 is not determined to be unpatentable;

FURTHER ORDERED that Patent Owner's Motion to Exclude the Reply Declaration of Dr. Edward A. Fox (Exhibit 1032) is DENIED;

FURTHER ORDERED that Exhibit 2114 and Exhibit 1033 will be made available to the public after 5 PM Eastern five business days after the entry date of this decision, unless prior to that time, each of Patent Owner and Petitioner (1) withdraws the motions to seal and requests that we expunge Exhibits 2114 and 1033, or (2) withdraws the motions to seal, requests that we expunge Exhibits 2114 and 1033, and replaces them with redacted versions that leave out the confidential information; and

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

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