

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

YAHOO! INC.,
Petitioner,

v.

CREATEADS LLC,
Patent Owner.

Case IPR2014-00200
Patent 5,535,320

Before MEREDITH C. PETRAVICK, JENNIFER S. BISK, and
PATRICK M. BOUCHER, *Administrative Patent Judges*.

BOUCHER, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background

On November 27, 2013, Google Inc. and Yahoo! Inc. filed a Petition (Paper 1) pursuant to 35 U.S.C. §§ 311–319 to institute an *inter partes* review of claims 1–20 of U.S. Patent No. 5,535,320 (Ex. 1001, “the ’320

patent”). A Corrected Petition (Paper 7, “Pet.”) was filed on December 18, 2013. CreateAds LLC (“Patent Owner”) filed a Preliminary Response (Paper 9, “Prelim. Resp.”) to the Corrected Petition on March 17, 2014. Pursuant to 35 U.S.C. § 314(a), the Board instituted trial on May 9, 2014, as to claims 1–20. Paper 10 (“Institution Decision” or “Dec.”).

During the trial, Patent Owner timely filed a Patent Owner Response (Paper 20, “PO Resp.”), and Petitioner timely filed a Reply to the Patent Owner Response (Paper 25, “Reply”). An oral hearing was held on February 2, 2015 (Transcript, Paper 41).

On November 7, 2014, the proceeding was terminated with respect to Google Inc. Paper 27. On February 26, 2015, the proceeding was terminated with respect to Yahoo! Inc. Paper 40. Although the proceeding thus was terminated with respect to all petitioners, the proceeding itself was not terminated, and we indicated our intention to proceed to this Final Written Decision. *Id.* at 2.

We have jurisdiction under 35 U.S.C. § 6(c). This 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 claims 1–20 are unpatentable.

B. Related Proceedings

The ’320 patent is involved as an asserted patent in the following district-court lawsuits between Patent Owner and the original petitioners: *CreateAds LLC v. Google Inc.*, Case No. 12-1606-GMS (D. Del.) and

IPR2014-00200
Patent 5,535,320

CreateAds LLC v. Yahoo! Inc., Case No. 12-1613-GMS (D. Del.). Petitioner represents that the '320 patent is also involved in thirty-three other copending lawsuits in the United States District Court for the District of Delaware, identified in Exhibit 1004. Pet. 1.

C. Grounds of Unpatentability

Petitioner relies on the following prior-art references.

Sieber	US 5,649,216	July 15, 1997	(Ex. 1005)
Sieber PCT	WO 92/21097	Nov. 26, 1992	(Ex. 1006)
Powell	US 4,873,643	Oct. 10, 1989	(Ex. 1010)
Amari	Thomas R. Amari, <i>Automating the Design of Packaging Families Using PackIT, The Packager's Inferencing Tool</i> , 1–131 (1987) (Ex. 1009)		
Feiner	Steven Feiner, <i>A Grid-Based Approach to Automating Display Layout</i> , Proc. Graph. Int. 1988, 192–97 (1988) (Ex. 1011)		

The grounds on which we instituted review are summarized by the following chart.

References	Basis	Claim(s) Challenged
Sieber	§ 102(e)	1, 2, 4–8, 10–15, and 17–20
Sieber PCT	§ 102(b)	1, 2, 4–8, 10–15, and 17–20
Amari	§ 102(b)	1, 2, 4–8, 10–15, and 17–20
Sieber and Amari	§ 103(a)	9
Sieber PCT and Amari	§ 103(a)	9
Sieber and Feiner	§ 103(a)	3, 5, 16, and 18
Sieber PCT and Feiner	§ 103(a)	3, 5, 16, and 18

D. The '320 Patent

The '320 patent, titled “Method of Generating a Visual Design,” issued on July 9, 1996, based on Application 08/268,613, filed July 1, 1994, and claims priority under 35 U.S.C. § 119(a) to GB 9313761, filed July 2, 1993. The '320 patent “relates to a method of generating a visual design for [an] application, for example, in the field of advertising, packaging or creating corporate images.” Ex. 1001, col. 1, ll. 8–10. The '320 patent describes three databases that contain information used in generating the visual design: (1) a first database that stores “visual design elements,” described as “typically includ[ing] logos, logotypes, graphics or other images, icons and custom wording in predetermined fonts,” *id.* at col. 2, ll. 51–53; (2) a second database that stores required “text elements,” described as “typically includ[ing] predetermined words, phrases, and blocks of text which may be descriptive or promotional in nature,” *id.* at col. 2, ll. 55–57; and (3) a third database that “stores data relating to predetermined design parameters which vary according to the visual design application which is selected,” *id.* at col. 2, ll. 59–61. Examples of “visual design applications” provided in the patent “include stationery, livery, signage, environmental items or structures, interior and exterior design, packaging, promotions and advertising.” *Id.* at col. 2, ll. 61–64.

Software uses these databases to generate a visual design, with the '320 patent illustrating four basic kinds of calculation through a series of flow diagrams: a reading-distance calculation, a scaling calculation, a positioning calculation, and an artwork-sizing calculation. *Id.* at col. 3,

ll. 55–60. A user may input values for certain parameters, with the software applying the calculations to determine values for other parameters used in generating the visual design. For example, if a user inputs design dimensions, the software may calculate the appropriate reading distance; if a user inputs a desired reading distance, the software may calculate overall dimensions of the design. *Id.* at col. 3, ll. 61–67. The various calculations result in determining a size and position for visual design elements and/or text elements in the visual design. *Id.* at col. 4, ll. 1–25.

Claim 1 is illustrative of the challenged claims:

1. A method of generating a representation of a visual design comprising:
 - storing data defining a plurality of visual design elements;
 - storing data defining a plurality of predetermined design parameters;
 - selecting one of a plurality of predetermined visual design applications, wherein each one of said plurality of predetermined visual design applications is associated with one or more of said plurality of predetermined design parameters;
 - selecting at least one visual design element for inclusion in the visual design;
 - generating a visual design utilizing the selected visual design element, the size and position of the element in the visual design being determined by the predetermined design parameters associated with the selected design application; and
 - generating a representation of the visual design.

Id. at 45–62.

II. ANALYSIS

A. *Claim Construction*

The '320 patent expired on July 1, 2014. *See* Paper 19, 2. The Board interprets claims of an expired patent under principles similar to those used during a district court's review. *See In re Rambus, Inc.*, 694 F.3d 42, 46 (Fed. Cir. 2012). We 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). "In determining the meaning of the disputed claim language, 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) (internal citation omitted).

1. *Claim Terms Previously Construed*

In the Institution Decision, entered before expiration of the '320 patent, we construed claim terms as reproduced in the table below, using the broadest reasonable construction in light of the specification of the patent in which they appear. Dec. 6–11.

Claim Term	Construction in the Institution Decision
“visual design elements”	logos, logotypes, graphics or other images, and wording in predetermined fonts each provide examples of “visual design elements”
“text elements”	words, phrases, and blocks of text each provide examples of “text elements”
“predetermined design parameters”	“predetermined parameters that affect the appearance of the visual design”
“storing data defining . . .”	“recording [specified] information”
“predetermined visual design applications”	“predetermined implementations for a visual design”
“livery”	“an emblem, device, and/or distinctive color on a vehicle, product, uniform, or other clothing, etc., indicating its owner or manufacturer”

After expiration of the '320 patent, we reconsidered our initial claim construction, concluding that construction under the principles applicable to expired patents “does not change our construction.” Paper 19, 3. We have reconsidered our construction again in light of further development of the parties’ positions during the trial, and conclude that there is no compelling reason to modify our constructions of “visual design elements,” “text elements,” “predetermined design parameters,” “predetermined visual design applications,” or “livery.” *See, e.g., Facebook, Inc. v. Pragmatus AV, LLC*, 582 Fed.Appx. 864, 869 (Fed. Cir. 2014) (nonprecedential) (“The broadest reasonable interpretation of a claim term *may be the same as* or broader than the construction of a term under the *Phillips* standard”) (emphasis added).

“storing data defining . . .”

Patent Owner contends that, under the *Phillips* standard, a person of ordinary skill in the art would construe each of “storing data defining a plurality of visual design elements,” “storing data defining a plurality of predetermined design parameters,” and “storing data defining a plurality of text elements” as requiring organization of the recited data in a database. PO Resp. 8–10, 12–14, 16–17. Patent Owner directs our attention to *Fotomedia Techs, LLC v. AOL, LLC*, Civil Action Nos. 2:07-cv-255 and 2:07-cv-256, 2009 WL 2175845, at *16 (E.D. Tex. July 21, 2009), as standing for the proposition that the claim term “storing” should be construed to require database storage “when the specification expressly, and solely, describes storage in a database.” *See id.* at 9–10. Patent Owner observes that the specification of the ’320 patent “repeatedly and consistently states that the visual design elements are stored in a database.” *Id.* at 9; *see id.* at 13 (similar observation for storage of predetermined design parameters), 16 (similar observation for storage of text elements). Petitioner does not address the reasoning of the District Court Magistrate Judge in *Fotomedia* in its Reply.

Patent Owner also supports its proposed construction with testimony by Craig E. Wills, Ph.D.,¹ who attests that

a person of ordinary skill in the art in 1993 would have understood . . . that for visual design elements to be selected from a storage medium for inclusion in a visual design

¹ As discussed *infra*, we deny Petitioner’s motion to exclude the testimony of Dr. Wills.

application, one would have understood that the claimed visual design elements must be organized and stored in a database to be made available for selection.

Ex. 2000 ¶ 19; *see id.* ¶ 22 (similar opinion for storage of predetermined design parameters), ¶ 25 (similar opinion for storage of text elements). Notably, the claims recite “storing” the various forms of data in combination with selection of at least one of the respective data. Although Petitioner challenges Patent Owner’s proposed construction, it appears not to have cross-examined Dr. Wills to explore further the basis for his opinion. *See* Reply 2–4. Petitioner also does not direct us to any disclosure in the specification of any other way of storing the recited forms of data.

We are persuaded that, under the construction afforded claims of an expired patent, the reasoning of *Fotomedia* is applicable and the claimed combination of selection of at least one of the respective data with “storing” the different forms of data supports a construction of “storing data defining . . .” as requiring storage in a database. But to the extent that Patent Owner’s proposed constructions demand *different* databases for the different forms of data, we disagree. Although the specification of the ’320 patent makes reference to “first,” “second,” and “third” databases (*see, e.g.*, Ex. 1001, col. 2, ll. 53–61), Patent Owner has not identified sufficient rationale for incorporating such a distinction into the claims. “Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims.” *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993).

We also disagree with Patent Owner’s contentions that (1) the “data defining” a “visual design element” must include its height and width; and (2) the “data defining” a “plurality of predetermined design parameters” must include parameters identifying size and position of the elements in a visual design. Both of these contentions improperly attempt to import limitations from the specification by imposing constraints on data storage that are neither recited explicitly in the claims nor demanded by the relationship with other elements recited in the claims.

Accordingly, we construe “storing data defining . . .” as “recording, in a database, information defining”

2. “entering data corresponding to a permitted range of variables in the selected design application”

Each of claims 4 and 17 recites “entering data corresponding to a permitted range of variables in the selected design application.” Patent Owner proposes that this limitation be construed as “entering a value within a predetermined range of values associated with the selected design application.” PO Resp. 17–18. Patent Owner reasons that one of ordinary skill in the art would understand that a “permitted” range must be determined in advance of entering a value within the range, and supports its reasoning with testimony by Dr. Wills. *Id.* at 18 (citing Ex. 2000 ¶ 26). Patent Owner also observes that the abstract of the ’320 patent explains that “[t]hese parameters, together with user-entered variables within a predetermined range adjust the relative size of each element and the

juxtaposition in the elements in the final design.” *Id.* (citing Ex. 1001, Abst.).

Petitioner disagrees with Patent Owner’s proposed construction, contending that “range of variables” would have been understood by one of ordinary skill in the art to mean a “list of variables,” not “the values of the variables,” supporting its proposal with testimony by Dr. Arthur M. Keller. Reply 4–5 (citing Ex. 1023 ¶¶ 23–25). Petitioner contends that its proposed construction is supported by the specification of the ’320 patent by describing several variables. *Id.* at 5.

We find that Petitioner’s proposed construction requires a less natural reading of the limitation, particularly in light of the language identified by Patent Owner in the patent’s abstract. In addition, Dr. Keller acknowledged at his deposition that “there are two alternative interpretations of the phrase ‘corresponding to a permitted range of variables,’” including the one advanced by Patent Owner. Ex. 1022, 68:23–69:8.

We construe the limitation as proposed by Patent Owner, i.e., as “entering a value within a predetermined range of values associated with the selected design application.”

B. Petitioner’s Motion to Exclude

Petitioner moves to exclude the declaration testimony of Patent Owner’s witness, Dr. Wills (Ex. 2000). Paper 30. Petitioner contends that Patent Owner has not qualified Dr. Wills as an expert and that his declaration is conclusory in nature because he fails to state what materials he

considered and what methodology he used in creating his declaration. *Id.* at 1. Petitioner timely objected to Dr. Wills’s declaration. Ex. 1024.

“A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if” certain conditions are met. Fed. R. Evid. 702. Although Patent Owner did not provide a copy of Dr. Wills’s curriculum vitae (Ex. 2003) with his declaration, the summary description of Dr. Wills’s education and experience in the declaration itself qualifies him as an expert on the issues addressed in his declaration. Dr. Wills declares under penalty of perjury that he holds baccalaureate and advanced degrees in computer science and has taught courses on “User Interface Design, in which visual design was one of the topics of the course.” Ex. 2000 ¶¶ 1–4.

In considering whether Dr. Wills’s opinions are deficient for failing to articulate sufficiently what materials he considered and what methodology he used, we observe that his declaration is limited in scope. It provides some background description of the technology at issue (*id.* ¶¶ 6–10), a brief overview of the ’320 patent (*id.* ¶¶ 11–12), an evaluation of the level of ordinary skill in the art (*id.* ¶¶ 13–16), and an expression of his opinion of how a person of ordinary skill in the art would understand certain terms appearing in the claims (*id.* ¶¶ 17–30). This information is helpful in developing appropriate claim constructions and requires no unusual or elaborate methodology. Notably, Dr. Wills does not testify to any opinion whether the claim elements are taught or suggested by any of the prior art

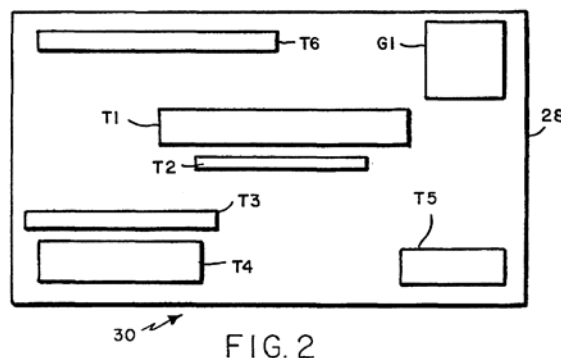
applied in any of the grounds upon which we instituted this *inter partes* review.

For these reasons, we decline to exclude the testimony of Dr. Wills.

*C. Anticipation of Claims 1, 2, 4–8, 10–15, and 17–20
by Sieber and Sieber PCT*

Sieber and Sieber PCT both developed from the same original application filed in the United States and share much of the same specification. They “relate[] to electronic publishing, and more particularly, to a system for automatically generating the page layout of a printed document from use-defined text and graphic elements.” Ex. 1005, col. 1, ll. 16–19; Ex. 1006, 2.² Petitioner contends that claims 1, 2, 4–8, 10–15, and 17–20 are anticipated by Sieber and are anticipated by Sieber PCT. Pet. 11–28.

Figure 2 of Sieber and Sieber PCT is reproduced below.



² Exhibit 1006 has two sets of pagination, the original pagination of the reference and pagination added by Petitioner. We cite to the original pagination of the reference.

Figure 2 illustrates an example of a document to which Sieber and Sieber PCT may be applied, in the form of a business card. Ex. 1005, col. 5, ll. 3–6; Ex. 1006, 8. A database of page specifications is stored, with each page specification generically describing the page layout of the document. Ex. 1005, col. 4, ll. 61–65; Ex. 1006, 8. The page layout corresponding to the example of Figure 2 includes (1) graphic element G1, which is “represented by a data structure . . . having the user-definable attributes of location, size, and actual graphic data,” Ex. 1005, col. 5, ll. 21–23, Ex. 1006, 9; and (2) text elements T1–T6, which are represented by data structures that “have the user-definable attributes of font style, character string, size, and location,” Ex. 1005, col. 5, ll. 17–20; Ex. 1006, 9. Other data structures define unchangeable aspects of the page, and various constraints comprised by the page specifications “describe various aspects of page **28** as well as the size and placement of the text and graphic elements of document **30** and their relationship to each other and to page **28**.” Ex. 1005, col. 5, ll. 23–29; Ex. 1006, 9.

The principal difference between Sieber and Sieber PCT is the disclosure of a second embodiment in Sieber, shown in Figures 5–8 and described at column 8, line 41 – column 11, line 38, that does not appear in Sieber PCT. Figure 6 of Sieber is reproduced below.

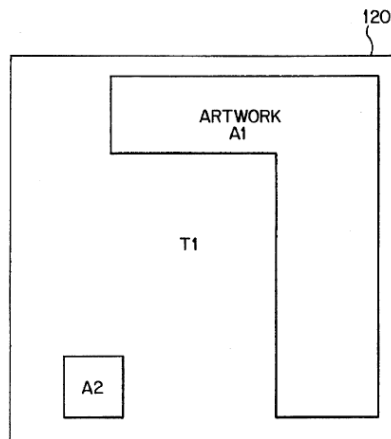


FIG. 6

Figure 6 illustrates a second example of a document to which Sieber may be applied (but which does not appear in Sieber PCT), in the form of a greeting card. Ex. 1005, col. 9, ll. 3–5. Sieber describes an artwork specification:

[A]rtwork specification **118** comprises a plurality of data structures representing the graphic elements of the artwork, as well as a plurality of constraints that dictate the relationships of the graphic elements to one another as well as to any text elements or other elements that might be incorporated into greeting card **120** The significant feature is that each artwork specification **118** describes how the other elements, such as text or graphic elements should interact with the placement of the artwork on the greeting card.

Ex. 1005, col. 9, ll. 10–46.

Graphic element G1 of Figure 2 and artwork A1 and A2 of Figure 6 are “visual design elements” as we have construed the term. Text elements T1–T6 of Figure 2 and the text that may be placed within area T1 of

Figure 6 are “text elements” as we have construed the term. The constraints on size and placement of text and graphic elements described separately for the first embodiment (*see* Ex. 1005, col. 5, ll. 23–29 and Ex. 1006, 9) and for the second embodiment (*see* Ex. 1005, col. 9, ll. 10–48) disclose “predetermined designed parameters” as we have construed the term. In addition, each of the business-card and greeting-card applications are stationery implementations for the visual design that correspond to “predetermined visual design applications” as we have construed the term.

We have reviewed the evidence presented by Petitioner, including the claim charts in the Petition (Pet. 13–28) and the Declarations of Dr. Keller (Exs. 1012, 1023). Notwithstanding Patent Owner’s arguments, we are persuaded that Petitioner has proved by a preponderance of the evidence that Sieber and Sieber PCT each anticipate claims 1, 2, 4–8, 10–15, and 17–20. We address specific arguments below.

*1. “selecting one of a plurality of
predetermined visual design applications”*

Patent Owner contends that neither Sieber nor Sieber PCT discloses “selecting *one of a plurality* of predetermined visual design applications” (emphasis added), as recited in independent claims 1 and 14, because Sieber and Sieber PCT “are limited to a single implementation – stationery.” PO Resp. 24–27. This contention introduces a further level of abstraction absent from our construction of “predetermined visual design applications” as “predetermined implementations for a visual design.” Nothing in our

construction precludes multiple stationery implementations from corresponding to “a plurality of predetermined visual design applications.” Indeed, Petitioner identifies passages in the specification of the ’320 patent inconsistent with Patent Owner’s position:

[I]n describing the purported problem to be solved, the specification notes that confusion or brand dilution may arise when “a particular trade mark may be applied to a number of different products, with a number of different forms of packaging, as well as being applied in advertising, signage, and on letterheads.” These passages teach that visual design “applications” may exist within a single subject matter category (e.g., “packaging”), and may also span multiple subject matter categories (e.g., “packaging,” “advertising,” “signage,” and “letterheads.”) In addition, the fact that a given “application” may fall within two or more subject matter categories—e.g., a product package may be “packaging,” “promotions,” and “advertising”—further confirms that the ’320 patent does not contemplate a hard division between subject matter categories.

Reply 7 (citing Ex. 1001, col. 1, ll. 15–18 (emphases by Petitioner)) (other citations omitted). Petitioner also supports its opposition to Patent Owner’s introduction of a higher level of abstraction in discussing “subject matter categories” with declaration testimony by Dr. Keller. Ex. 1023 ¶ 30.

Sieber and Sieber PCT disclose a “database [that] may contain numerous page specifications.” Ex. 1005, col. 6, l. 19; Ex. 1006, 11. Each such page specification “comprises a plurality of data structures representing the text and graphic elements of [a] document **30**.” Ex. 1005, col. 5, ll. 12–14; Ex. 1006, 9. We find that the disclosure of such multiple page specifications discloses “a plurality of predetermined visual design

applications.” In addition, we find that Sieber and Sieber PCT’s disclosure of “user interface subroutines which allow the user to select one of the page specifications in [the] database **25**” (Ex. 1005, col. 6, ll. 35–37; Ex. 1006, 12) discloses “selecting one of a plurality of predetermined visual design applications.”

2. *“entering data corresponding to a permitted range of variables in the selected design application”*

Each of dependent claims 4 and 17 recites “entering data corresponding to a permitted range of variables in the selected design application,” which we construe as “entering a value within a predetermined range of values associated with the selected design application.” Patent Owner contends that Petitioner’s identification of entering page dimensions, aspect ratios, text, font styles, locations and sizes of elements is insufficient to demonstrate that the limitation is disclosed by Sieber or Sieber PCT because “[s]imply entering information . . . does not indicate that there is a ‘permitted range.’” PO Resp. 29.

Patent Owner identifies aspect ratio as a choice “which may be limited.” *Id.* Sieber and Sieber PCT disclose that, in some instances, “the user will be prompted to enter the desired dimensions of the page **28**, as well as the desired aspect ratio, i.e., portrait or landscape format, if applicable.” Ex. 1005, col. 7, ll. 56–58; Ex. 1006, 15. Patent Owner’s argument that “there is no indication from these vague statements as to whether *Sieber* provides a predetermined range of values or whether it is limited to a single

value” does not impugn that the states of “portrait” and “landscape” define a “predetermined range of values.” *See* PO Resp. 30. Rather, Patent Owner suggests that Sieber and Sieber PCT’s assertion that prompting the user to enter a desired aspect ratio “if applicable” does not rule out possibilities when no such choice is afforded to the user. *See id.* This is unpersuasive. Sieber and Sieber PCT clearly contemplate circumstances in which the user enters a value (“portrait” or “landscape”) within a predetermined range of values (“portrait” and “landscape”) associated with the selected design application.

We also note that Dr. Keller opines that Sieber and Sieber PCT’s disclosure of design constraints effectively imposes limits on the variables for which a user is prompted to enter values. *See* Ex. 1023 ¶ 41. Patent Owner does not identify adequately controverting evidence. Petitioner’s argument that the Petition’s identification of “page dimensions, object locations, previously stored graphics, and font options as other variables in *Sieber* and *Sieber PCT*, for which the user can enter data corresponding to each variable” (Reply 11) thus is supported by sufficient evidence.

3. *“text elements include predetermined words, phrases, and blocks of text”*

Claim 6 recites that “the text elements include predetermined words, phrases and blocks of text.” Patent Owner contends that this limitation is not directed to nonfunctional descriptive material and that it is not disclosed by Sieber or Sieber PCT. PO Resp. 31–34. We need not decide the former

contention because we are persuaded by Petitioner that the limitation, in any event, is disclosed by Sieber and Sieber PCT.

Petitioner identifies Sieber and Sieber PCT's disclosure of storing "user-defined character strings," and Sieber PCT's disclosure of a database that "contains a plurality of pre-written message texts that are not associated with any particular type of artwork," examples of which include generic holiday greetings and famous quotations. Pet. 20 (citing Ex. 1005, col. 10, ll. 15–29); *see* Ex. 1006, 5. Patent Owner's contention that "'user-defined character strings' are not 'predetermined'" because they are determined at the instant the user creates them is not persuasive. *See* PO Resp. 33.

Although they may be "determined" in the first instance at that time, Sieber and Sieber PCT teach storing them so that their subsequent use thereafter is "predetermined." *See* Ex. 1005, col. 3, ll. 7–8; Ex. 1006, 5. And Patent Owner's argument that "the Petition does not specify which, if any, of the joke, holiday greeting or famous quotation anticipate the 'predetermined words, phrases and blocks of text' limitation" is also unpersuasive because each of those message texts includes predetermined words, phrases, and blocks of text. *See* PO Resp. 33–34.

4. *"visual design elements include . . .
wording in predetermined fonts"*

Claims 7 and 8 recite that "the visual design elements include logos, logotypes, graphics or other images, and wording in predetermined fonts." The Petition identifies a graphic element "such as a corporate logo or other

symbols associated with the card holder’s business or trade” as a visual design element that includes wording in predetermined fonts. Pet. 20–21 (citing Ex. 1005, col. 5, ll. 45–48; Ex. 1006, 10). We disagree with Patent Owner’s assertion that “[t]he Petition does not state or suggest that the corporate logo or symbol for the graphic element G1 is ‘wording in predetermined fonts.’” PO Resp. 35. The Petition includes a chart to illustrate that “[e]ach and every element of claims 1-20 is disclosed in each of *Sieber* and *Sieber PCT*” (Pet. 13), with the text of claim 7 reproduced beside the disclosure of *Sieber* and *Sieber PCT* describing a corporate logo or other symbol as an example of graphic element G1. We determine that the cited portions of the references adequately disclose what Patent Owner contends is absent from the Petition.

5. *“each of the plurality of predetermined visual design applications has its own predetermined design parameters, which are related to the predetermined design parameters of one or more of the other visual design applications”*

Claims 10 and 19 each recite that “the plurality of predetermined visual design applications has its own predetermined design parameters, which are related to the predetermined design parameters of one or more of the other visual design applications.” In considering this limitation, we note that “related” is a broad term that may be satisfied in a variety of different ways. Although Patent Owner contends that it is “unclear” how the portions of *Sieber* and *Sieber PCT* cited by Petitioner meet the limitation (PO Resp.

36–37), Petitioner’s observation that page specifications contain common elements is sufficient to show relatedness. *See* Pet. 22, 27–28; Reply 14.

6. Summary

Based on our consideration of the evidence presented by Petitioner and the arguments detailed above, we are persuaded that Petitioner has proved by a preponderance of the evidence that claims 1, 2, 4–8, 10–15, and 17–20 are anticipated by Sieber and that claims 1, 2, 4–8, 10–15, and 17–20 are anticipated by Sieber PCT.

D. Anticipation of Claims 1, 2, 4–8, 10–15, and 17–20 by Amari

Amari is a thesis that Petitioner represents “was catalogued and publicly accessible in the library of the Massachusetts Institute of Technology in December 1987.” Pet. 28 (citing Exs. 1007–1009, 1014 ¶¶ 10–13). Patent Owner does not contest the availability of Amari as prior art to the ’320 patent. Petitioner contends that claims 1, 2, 4–8, 10–15, and 17–20 are anticipated by Amari. Pet. 28–41.

Amari describes *PackIT, The Packager’s Inferencing Tool* (“PackIT”), “a rule-based expert system . . . to assist designers in the layout of package families or product lines.” Ex. 1009, 6–7. A workstation “incorporates two and three dimensional design facilities, knowledge-based graphics, sound as a user interface, and a high-quality output.” *Id.* at 9. A user of the workstation has access to computerized “paintbox” tools, which

are a set of programs that enable the user “to create and edit individual graphic objects which are to appear on the package layout.” *Id.*

Individual graphic objects to appear on the package are created, and may be “digitized images, text objects, or objects painted using the paintbox system.” *Id.* at 89. A “knowledge base contains a number of graphic design rules [that] serve as a filter and a source of guidance for PackIT’s user[, who] may then specify the particular package characteristics . . . such as size, shape, marketing area, etc.” *Id.* at 15. PackIT applies the rules to lay out the graphic objects, perhaps including resizing, reshaping, cropping, exchanging, or eliminating some of them, after which the user may manually reposition the elements. *Id.*

In its claim charts at pages 30–54, Petitioner maps several elements disclosed by Amari to recitations in the claims, including the following:

Amari	Claim recitations
“layout”	“visual design”
“graphic objects”	“plurality of visual design elements”
“design rules”	“plurality of predetermined design parameters”
“package types”	“plurality of predetermined visual design applications”
“computer display”	“representation”
“text objects”	“data defining a plurality of text elements”

Such mappings are consistent with our claim construction. We note that Amari discloses that PackIT may be implemented on a computer

(“Bobcat”) that “provides a *Starbase* graphics library with hardware support of 2D and 3D graphics primitives,” i.e., records, in a database, information defining a plurality of visual design elements. *See* Pet. 30 (citing Ex. 1009, 81). In addition, PackIT’s knowledge base functions as a database that records information defining a plurality of predetermined design parameters. *See* Pet. 30 (citing Ex. 1009, 89).

We have reviewed the evidence presented by Petitioner, including the claim charts in the Petition (Pet. 30–54) and the declarations of Dr. Keller (Exs. 1012, 1023). Patent Owner presents arguments that generally parallel those made in response to the Sieber and Sieber PCT anticipation grounds. PO Resp. 40–49. We are persuaded, notwithstanding Patent Owner’s arguments, that Petitioner has proved by a preponderance of the evidence that Amari anticipates claims 1, 2, 4–8, 10–15, and 17–20. We address specific arguments below.

*1. “selecting one of a plurality of
predetermined visual design applications”*

Patent Owner contends that the portions of Amari cited by Petitioner “do not describe a step of ‘selecting.’” *Id.* at 41. Patent Owner acknowledges that the portions of Amari cited by Petitioner “state[] that a package family may consist of multiple types of packages which are design[ed] according to rules.” *Id.* Such a characterization of the portions of Amari cited by Petitioner is too narrow because Amari explains that the design of “*each package* in a family . . . is subject to a number of strict

rules.” Ex. 1009, 2 (emphasis added). It reasonably follows that use of the method described by Amari to design a package requires “selecting” the design rules for the package from among the rules for the family.

Similar to its argument directed at Sieber and Sieber PCT, Patent Owner also contends that Amari “only discusses a single visual design implementation – packaging.” PO Resp. 41. As explained in our analysis of Sieber and Sieber PCT, this argument introduces a further level of abstraction absent from the claim construction we adopt, which does not preclude multiple packaging implementations from corresponding to “a plurality of predetermined visual design applications.” *See supra* § C.1.

For these reasons, we find that Amari discloses “selecting one of a plurality of predetermined visual design applications.”

2. *“entering data corresponding to a permitted range of variables in the selected design application”*

Similar to its argument directed at Sieber and Sieber PCT, Patent Owner contends that Amari does not disclose “entering data corresponding to a permitted range of variables in the selected design application,” as recited in dependent claims 4 and 17. PO Resp. 42–44. Patent Owner argues that the portions of Amari cited by Petitioner “do[] not discuss any limits on size imposed by the paintbox module, or any limits imposed on positions defined when building a position tree.” *Id.* at 43. But Petitioner’s analysis is supported by the uncontroverted testimony of Dr. Keller, which we credit, that modifications to the appearance and position of objects

created using the “paintbox” tool of Amari require the entry of data corresponding to a value within a predetermined range of values. *See* Ex. 1023 ¶ 42.

We find that Petitioner has shown that Amari discloses “entering data corresponding to a permitted range of variables in the selected design application.”

3. *“text elements include predetermined words, phrases, and blocks of text”*

Similar to its argument directed at Sieber and Sieber PCT, Patent Owner contends that Amari does not disclose that the “text elements include predetermined words, phrases, and blocks of text,” as recited in dependent claim 6. PO Resp. 44–46. Patent Owner focuses on one of the examples provided by Petitioner in its claim chart, namely the creation of text shown in Figure 10.1 of Amari. *Id.*; *see* Ex. 1009, 90. Patent Owner contends that “there is no indication . . . that ‘Vittles’ is a ‘predetermined’ word . . . , and, at best, this is a single word, not predetermined ‘words’ (plural) or ‘phrases and blocks of text.’” PO Resp. 45.

Patent Owner’s focus on this example is selective and does not address other examples provided in Petitioner’s claim chart, including examples shown in Figures 1.1 and 4.6 of Amari. *See* Pet. 35. Those figures show packages amenable to design by the PackIT system that include multiple words and phrases organized as blocks of text. As Petitioner and Dr. Keller assert, company names (such as “Polaroid,” which appears in the

example of Figure 4.6) are “predetermined words.” *See id.*; *see* Ex. 1012 ¶ 76. Accordingly, we find that Petitioner has shown that Amari discloses that the “text elements include predetermined words, phrases, and blocks of text.”

4. “*visual design elements include . . . logotypes, graphics or other images, and wording in predetermined fonts*”

Patent Owner contends that Petitioner has not established adequately that Amari discloses that “visual design elements include . . . logotypes, graphics or other images, and wording in predetermined fonts,” as recited in dependent claim 7. PO Resp. 46–47. First, we are not persuaded by Patent Owner’s argument that the portions of Amari cited by Petitioner “are generalized discussions of package design, not the capabilities of the PackIT system.” *Id.* at 47. Even if the identified disclosures are “generalized discussions of package design,” they are made in the context of the types of designs that may be generated with the PackIT system (“PackIT’s rule base contains general rules of graphic design as well as the packaging rules of a hypothetical company” (Ex. 1009, 8)).

Second, we are not persuaded by Patent Owner’s distinction between the “predetermined fonts” recited in the claim and the “typefaces” described by Amari. *See* PO Resp. 47. Patent Owner has proffered no claim construction of “predetermined fonts” inconsistent with the use of typefaces described by Amari, and has provided no explanation of the distinction it wishes to draw beyond a vague assertion that “[a]lthough a typeface may

relate to a font, the quoted portions of *Amari* do not discuss any ‘wording’ in such typefaces.” *See id.*

Accordingly, we find that Petitioner has shown that *Amari* discloses that “visual design elements include . . . logotypes, graphics or other images, and wording in predetermined fonts.”

5. “*each of the plurality of predetermined visual design applications has its own predetermined design parameters, which are related to the predetermined design parameters of one or more of the other visual design applications*”

Similar to its argument directed at Sieber and Sieber PCT, Patent Owner contends that *Amari* does not disclose that “each of the plurality of predetermined visual design applications has its own predetermined design parameters, which are related to the predetermined design parameters of one or more of the other visual design applications,” as recited in dependent claims 10 and 19. PO Resp. 47–49. First, we are not persuaded by Patent Owner’s argument that the portions of *Amari* cited by Petitioner “are generalized discussions of package design, not the capabilities of the PackIT system” because of the broad context in which *Amari* describes the types of designs that may be generated with the PackIT system. *See supra* § D.4.

Second, we are not persuaded by Patent Owner’s argument that Petitioner has failed to show that *Amari* discloses that predetermined design parameters are “related” among multiple visual design applications. *See* PO Resp. 48. As we explain *supra*, § C.5, “related” is a broad term that may be satisfied in a variety of ways, and *Amari* specifically discloses its objective

of maintaining consistency through a product line (“In developing PackIT, the relationships that may exist throughout the members of a typical product line or package family have been formally defined and incorporated as rules within the knowledge base,” Ex. 1009, 8).

6. *Summary*

Based on our consideration of the evidence presented by Petitioner and the arguments detailed above, we are persuaded that Petitioner has proved by a preponderance of the evidence that claims 1, 2, 4–8, 10–15, and 17–20 are anticipated by Amari.

E. Claim 9

Claim 9 recites that “the predetermined visual design applications include stationery, livery, signage, packaging, promotions and advertising applications.” Petitioner contends that claim 9 is unpatentable under 35 U.S.C. § 103(a) over Sieber and Amari and over Sieber PCT and Amari. Pet. 56.

Petitioner contends that “the subject matter of claim 9 would have been obvious in view of the teachings of [Sieber or Sieber PCT and] *Amari* . . . , which . . . disclose[s] stationery, livery, signage, packaging, promotions, and advertising applications.” *Id.* Patent Owner does not make any specific argument for claim 9, but instead relies on its arguments that neither Sieber nor Sieber PCT anticipates independent claim 1, from which claim 9 depends. PO Resp. 49.

Amari’s suggestion to use rule-based systems like PackIT in generating designs is provided in the context of maintaining design consistency over multiple products: “If a company has a number of related products, it is of great importance that the designs project the company identity *throughout the line* of product packages.” Ex. 1009, 7 (emphasis added). Amari’s suggestion of extending PackIT to “the design of letterheads, envelopes, business cards, and the like,” and to “advertising, signs for corporate offices, and graphics displayed on company vehicles” embraces each of the individual implementations recited in the claim. *See id.*, 58.

We conclude that Petitioner has proved by a preponderance of the evidence that claim 9 is unpatentable under 35 U.S.C. § 103(a) over Sieber and Amari and over Sieber PCT and Amari.

F. Claims 3, 5, 16, and 18

Claims 3 and 16 recite that “the predetermined design parameters include an intended viewing distance for the visual design”; claims 5 and 18 recite a similar limitation. Petitioner contends that these claims are unpatentable under 35 U.S.C. § 103(a) over Sieber and Feiner and over Sieber PCT and Feiner. Pet. 56–60. We agree with Petitioner’s contentions.

Feiner describes automated layout of graphical displays. Ex. 1011, 192. In this context of graphical design, Feiner teaches a grid-based approach to determining the size and position of objects displayed to a user, explicitly disclosing consideration of intended viewing distance as a

parameter for setting text and determining the size for graphical images. *Id.* at 193. Specifically, Feiner teaches that the “normalized size [of a picture] specifies the minimum width and height that the picture must have in order to be understandable when viewed at a set distance. In conjunction with the viewer’s distance[,] it determines the actual minimum size at which the picture must be reproduced.” *Id.* As Petitioner asserts, Feiner is related to the same field of endeavor as Sieber and Sieber PCT, i.e., graphic design. Pet. 57. Petitioner reasons that, because each of Sieber, Sieber PCT, and Feiner “expressly discloses generating visual designs for predetermined applications with associated predetermined design parameters,” it would have been obvious for a person of ordinary skill in the art to combine the teachings of Sieber or Sieber PCT with well-known designer skills, as exemplified by Feiner, to create visual designs based on intended viewing distance. *Id.* (citing Ex. 1012 ¶¶ 45, 46, 106, 107).

Patent Owner does not make any specific argument directed at claims 3, 5, 16, and 18, but instead relies on its arguments that neither Sieber nor Sieber PCT anticipates claims 2, 4, 15, or 17, from which those claims respectively depend. PO Resp. 49.

We conclude that Petitioner has proved by a preponderance of the evidence that claims 3, 5, 16, and 18 are unpatentable under 35 U.S.C. § 103(a) over Sieber and Feiner and over Sieber PCT and Feiner.

III. CONCLUSION

Petitioner has demonstrated by a preponderance of the evidence that:

(1) claims 1, 2, 4–8, 10–15, and 17–20 are unpatentable under 35 U.S.C. § 102(e) as anticipated by Sieber;

(2) claims 1, 2, 4–8, 10–15, and 17–20 are unpatentable under 35 U.S.C. § 102(b) as anticipated by Sieber PCT;

(3) claims 1, 2, 4–8, 10–15, and 17–20 are unpatentable under 35 U.S.C. § 102(b) as anticipated by Amari;

(4) claim 9 is unpatentable under 35 U.S.C. § 103(a) over Sieber and Amari;

(5) claim 9 is unpatentable under 35 U.S.C. § 103(a) over Sieber PCT and Amari;

(6) claims 3, 5, 16, and 18 are unpatentable under 35 U.S.C. § 103(a) over Sieber and Feiner; and

(7) claims 3, 5, 16, and 18 are unpatentable under 35 U.S.C. § 103(a) over Sieber PCT and Feiner;

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, based on a preponderance of the evidence, claims 1–20 of U.S. Patent No. 5,535,320 are *held to be unpatentable*;

FURTHER ORDERED that Petitioner’s Motion to Exclude the declaration testimony of Craig E. Wills, Ph.D. (Ex. 2000) is *denied*; and

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

IPR2014-00200
Patent 5,535,320

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