

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TUAN HUYNH, NOBUYA HIGASHIYAMA, ZIYI WANG,
JEFF REYNAR, MICHAEL AMMERLAAN, ROGER WOLFF,
and KEVIN B. GJERSTAD

Appeal 2007-1880
Application 10/184,556¹
Technology Center 2100

Decided: April 22, 2008

Before LANCE LEONARD BARRY, ALLEN R. MACDONALD,
and SCOTT R. BOALICK, *Administrative Patent Judges*.

BOALICK, *Administrative Patent Judge*.

¹ Application filed June 27, 2002. The application is a continuation-in-part of U.S. Patent Application Serial No. 09/588,411, filed June 6, 2000. The real party in interest is Microsoft Corporation.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134(a) from the final rejection of claims 1-75, all the claims pending in the application. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm-in-part.

STATEMENT OF THE CASE

Appellants' invention relates to a method and system for semantically labeling data, such as strings of text and media objects, during the creation of an electronic document and providing a user with a selection of actions that may be performed based on the semantically labeled data.

(Spec. 3:24-27.)

Claim 1 is exemplary:

1. A computer-implemented method for semantically labeling data as the data is added to an electronic document created in an application program module, comprising:

accessing data being added to an electronic document, while monitoring to check if said data has been changed;

analyzing said data to recognize semantic information in said data;

if semantic information is recognized, reanalyzing said data to determine if the data has been changed;

determining from reanalyzed data a semantic label for said semantic information; and

applying said semantic label to said data.

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The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Beauregard	US 5,974,413	Oct. 26, 1999
Craft	US 6,704,739 B2	Mar. 9, 2004 (filed Jan. 4, 1999)

Claims 1, 23, 55, and 57-59 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Beauregard.

Claims 41-43, 48-54, 60, 61, and 68-75 stand rejected under 35 U.S.C. § 103(a) as being obvious over Beauregard.

Claims 2-22, 24-40, 44-47, 56, and 62-67 stand rejected under 35 U.S.C. § 103(a) as being obvious over Beauregard and Craft.

Rather than repeat the arguments of Appellants or the Examiner, we make reference to the Briefs and the Answer for their respective details. Only those arguments actually made by Appellants have been considered in this decision. Arguments that Appellants did not make in the Briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).²

² Except as will be noted in this opinion, Appellants have not presented any substantive arguments directed separately to the patentability of the dependent claims or related claims in each group. In the absence of a separate argument with respect to those claims, they stand or fall with the representative independent claim. *See* 37 C.F.R. § 41.37(c)(1)(vii).

ISSUE

The issue is whether Appellants have shown that the Examiner erred in rejecting claims 1, 23, 55, and 57-59 under 35 U.S.C. § 102(e) and in rejecting claims 2-22, 24-54, 56, and 60-75 under 35 U.S.C. § 103(a).

FINDINGS OF FACT

The record supports the following findings of fact (FF) by a preponderance of the evidence.

1. Appellants describe a method for recognizing data, including strings and media objects, and annotating or labeling the data with a type label. (Spec. Abstract.) According to Appellants:

After the data is annotated with a type label, application program modules may use the type label to provide users with a choice of actions. If the user's computer does not have any actions associated with a type label, the user may be provided with the option to surf to a download Uniform Resource Locator (URL) and download action plug-ins for that type label. One or more recognizer plug-ins perform the recognition of particular strings or media objects in an electronic document. The recognizer plug-ins may be packaged with an application program module or they may be written by third parties to recognize particular data that is of interest. One or more action plug-ins provide possible actions to be presented to the user based upon the type label associated with the data in an electronic document.

(Spec. Abstract.)

2. The Specification teaches that recognizer plug-ins 220 recognize particular strings that are of interest in an electronic document. (Spec. 9:21-26.) The recognizer plug-ins 220 determine which data is to be labeled and how it is to be labeled. (Spec. 9:29-30.) A recognizer DLL (Dynamic Link Library) 210 receives the results from the recognizer plug-ins and sends semantic categories to an application program module. (Spec. 10:1-2.) A semantic category may include the recognized data, a type label, a download URL, and meta-data. (Spec. 10:2-4, 26-29.) The user may execute actions associated with the type label of the semantic category. (Spec. 10:8-10.) An action DLL 215 manages action plug-ins 225 that execute the actions associated with the type label of the semantic category. (Spec. 10:10-11.) The action plug-ins provide possible actions to be presented to the user based upon the type label associated with the data. (Spec. 10:13-15.)

3. Beauregard describes a semantic user interface (SUI) that allows a user to use everyday language and user-defined words to operate a computer such that every word, letter, or symbol may be actionable. (Col. 4, ll. 34-37.) Beauregard teaches that "[t]he present invention is a system that acts upon human language text that arrives at the user's desktop computer." (Col. 8, ll. 28-29.) The SUI monitors the user's input text stream and is responsive to action words entered by the user. (Col. 5, ll. 9-19; col. 8, ll. 42-44; col. 9, ll. 5-14.)

4. Beauregard teaches that there are two types of action words: (1) code words, which are not part of the user's natural language; and (2) dual words, which can either be action words or ordinary content words. (Col. 5, ll. 15-30; col. 15, ll. 18-46.) When a dual word is sensed, "the present invention must be told by the user that it is an action word (i.e., the user must disambiguate the dual word)." (Col. 15, ll. 43-46.) Beauregard teaches that one simple method for a user to disambiguate a dual word is for the user to press the space bar. (Col. 15, ll. 47-49.)
Beauregard explains that:

If the user's intention is to use the entered dual word as a content word, the user does not press the space bar twice. In that event, the present invention ignores the word and continues sensing for the next action word. If his intention is to use it as an action word, the present invention immediately erases the word from the text stream and executes the service script associated with that action word. As should be readily apparent to one skilled in the art, other techniques can be used for disambiguating a dual word.

(Col. 15, ll. 49-58.)

5. Beauregard teaches that "[o]nce text has been entered or selected . . . the text is passed to the present invention to determine its actionability." (Col. 8, ll. 36-38.) The action words are checked against the contents of a wordbase that has items records with action words and associated service scripts. (Col. 5, ll. 31-34; col. 17, l. 10 to col. 18, l. 4.)

6. Beauregard teaches that "[i]f the text is actionable, the present invention executes the designated action." (Col. 8, ll. 38-39.) The service script can perform command functions, content functions, navigation functions, locate/retrieve information, or trigger complex functions. (Col. 5, ll. 34-36; col. 10, ll. 10 to col. 11, l. 16; col. 26, l. 30 to col. 27, l. 2.) Content functions include "text substitutions, punctuation, text formatting, text content transformation, and the like." (Col. 10, ll. 15-17.)

7. Beauregard teaches that, in one embodiment, the user types, speaks or selects an utterance and activates the word by pressing the space bar twice. (Col. 38, ll. 15-28.) Then, "[i]f the user holds the space bar down, the word will begin to change (toggle) into different options according to the word after a specified number of milliseconds." (Col. 38, ll. 28-31.) "For example, if the word is a date, and the user types 1.1.97, it will change to 1/1/97, January 1, 1997, and so on, until the user releases the space bar." (Col. 38, ll. 32-35.)

8. Beauregard teaches that if multiple item records are found that match an utterance (action word), a list is generated and a multi-item resolution window is displayed. (Col. 42, ll. 30-34; Figs. 31A, 31B.) The Multi-item resolution window includes the contents of the comment field in each item record paired with each item's code word and/or dual word. (Col. 42, ll. 34-36; Figs. 31A, 31B.) Fig. 31A shows a window that allows a user to select from a list of names in response to the action word "call" and Fig. 31B shows a multi-item

- resolution window that allows a user to select from a list of phone numbers in response to the action word "John Miller."
9. Beauregard teaches an example of multi-item resolution where the user has seven documents in the computer named "Expenses." (Col. 42, l. 51 to col. 43, l. 13.) The user creates wordbase item records, gives each folder the dual word "expenses," identifies the project folder name in the comment field of each item record, and assigns a code word that is unique for each item. (Col. 42, ll. 51-62.) When the user types "expenses," the user is offered the option to treat it as an action word related to those folders. (Col. 42, ll. 63-65.) The user accepts the dual word option by tapping the space bar a second time and the system responds by finding all seven items. (Col. 42, l. 66 to col. 43, l. 1.) Since there is more than one in the wordbase, a Multi-Item Resolution Box is opened. (Col. 43, ll. 1-2.) This Multi-Item Resolution Box includes the contents of the comment field in each item paired with each item's code word. (Col. 43, ll. 2-4.) The user selects one of the records and presses enter for that script to be executed. (Col. 43, ll. 4-7.) The script associated with the selected item record opens the document. (Col. 43, ll. 7-8.)
 10. Craft describes a method for tagging data assets. (Abstract.) Craft explains that diverse digital assets, such as digitized photographs, compressed motion video, sound, and text may be stored in computer systems as file objects. (Col. 1, ll. 4-8.) Craft also teaches that metadata can be used to realize improvements in the logical

organization, storage, and retrieval of digital assets. (Col. 1, ll. 14-18.) In particular, Craft teaches that metadata tags associated with stored data assets may be used to facilitate the logical arrangement, cataloging, storage, and retrieval of assets. (Col. 3, ll. 15-21.) A tag semantic network can represent stored assets and may include an asset reference. (Col. 4, ll. 6-8.) An asset reference is directly related to a stored asset, and can include additional data such as the asset type. (Col. 4, ll. 6-15.) One tag model metadata type is referred to as a "named concept." (Col. 4, ll. 22-25.) As an example, a computer printer may be represented by a concept named "Printer." (Col. 4, ll. 25-27.)

PRINCIPLES OF LAW

On appeal, all timely filed evidence and properly presented arguments are considered by the Board. *See In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984).

In the examination of a patent application, the Examiner bears the initial burden of showing a prima facie case of unpatentability. *Id.* at 1472. When that burden is met, the burden then shifts to the applicant to rebut. *Id.*; *see also In re Harris*, 409 F.3d 1339, 1343-44 (Fed. Cir. 2005) (finding rebuttal evidence unpersuasive). If the applicant produces rebuttal evidence of adequate weight, the prima facie case of unpatentability is dissipated. *In re Piasecki*, 745 F.2d at 1472. Thereafter, patentability is determined in view of the entire record. *Id.* However, on appeal to the Board it is an appellant's burden to establish that the Examiner did not sustain the necessary burden and to show that the Examiner erred. *See In re Kahn*, 441

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F.3d 977, 985-86 (Fed. Cir. 2006) ("On appeal to the Board, an applicant can overcome a rejection [for obviousness] by showing insufficient evidence of *prima facie* obviousness or by rebutting the *prima facie* case with evidence of secondary indicia of nonobviousness.") (quoting *In re Rouffet*, 149 F.3d 1350, 1355 (Fed. Cir. 1998)).

Anticipation is established when a single prior art reference discloses expressly or under the principles of inherency each and every limitation of the claimed invention. *Atlas Powder Co. v. IRECO Inc.*, 190 F.3d 1342, 1347 (Fed. Cir. 1999); *In re Paulsen*, 30 F.3d 1475, 1478-79 (Fed. Cir. 1994).

"Section 103 forbids issuance of a patent when 'the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.'" *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1734 (2007).

In *KSR*, the Supreme Court reaffirmed that "[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* at 1739. The Court explained:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in

the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id. at 1740. The Court also explained that:

[o]ften, it will be necessary . . . to look to interrelated teachings of multiple patents; the effects of demands known to the design community or present in the marketplace; and the background knowledge possessed by a person having ordinary skill in the art, all in order to determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.

Id. at 1740-41.

"[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d at 988. "To facilitate review, this analysis should be made explicit." *KSR*, 127 S. Ct. at 1741. However, "the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ."

Id.

The Supreme Court noted that "[i]n many fields it may be that there is little discussion of obvious techniques or combinations, and it often may be the case that market demand, rather than scientific literature, will drive design trends." *KSR*, 127 S. Ct. at 1741. "Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and

addressed by the patent can provide a reason for combining the elements in the manner claimed." *Id.* The Court also noted that "[c]ommon sense teaches . . . that familiar items may have obvious uses beyond their primary purposes, and in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle." *Id.* at 1742. "A person of ordinary skill is also a person of ordinary creativity, not an automaton." *Id.*

Furthermore, the Supreme Court explained that "[w]hen there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill has good reason to pursue the known options within his or her technical grasp." *KSR*, 127 S. Ct. at 1742. "If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense," *id.* and, in such an instance "the fact that a combination was obvious to try might show that it was obvious under § 103" *id.*

The level of ordinary skill in the art may be evidenced by the prior art references. *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) ("Although the Board did not make a specific finding on skill level, it did conclude that the level of ordinary skill in the art . . . was best determined by appeal to the references of record We do not believe that the Board clearly erred in adopting this approach."); *see also In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978) ("the PTO usually must evaluate both the scope and content of the prior art and the level of ordinary skill solely on the cold words of the literature").

During examination of a patent application, a claim is given its broadest reasonable construction consistent with the specification. *In re*

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Prater, 415 F.2d 1393, 1404-05 (CCPA 1969). "[T]he words of a claim 'are generally given their ordinary and customary meaning.'" *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal citations omitted). The "ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application." *Id.* at 1313.

ANALYSIS

Appellants contend that the Examiner erred in rejecting claims 1-75. Reviewing the record before us and the findings of facts cited above, we do not agree that the Examiner erred in rejecting claims 1-12, 15-34, 37-42, 44-48, 50, and 52-59. In particular, we find that the Appellants have not shown that the Examiner failed to make a prima facie showing of anticipation with respect to claims 1, 23, 55, and 57-59 and have not shown that the Examiner failed to make a prima facie showing of obviousness with respect to claims 2-12, 15-22, 24-34, 37-42, 44-48, 50, 52-54, and 56. Appellants failed to meet the burden of overcoming these prima facie showings. However, we agree with Appellants that the Examiner erred in rejecting claims 43, 49, 51, and 60-75 as being obvious over Beauregard, and claims 13-14 and 35-36 as being obvious over Beauregard and Craft.

35 U.S.C. § 102(e) Rejection -- Beauregard

Claims 1, 23, 55, and 57-59

With respect to independent claim 1, Appellants argue that Beauregard does not teach (1) "accessing data being added to an electronic document, while monitoring to check if the data has been changed" and (2) "if semantic information is recognized, reanalyzing said data to determine if the data has been changed," as claimed. (App. Br. 26-34; Reply Br. 2-5.) In particular, Appellants assert that "[w]hile Beauregard accesses data being added to an electronic document, the data is not monitored to determine if the data has been changed, as required Nor is action data re-analyzed to determine if the data has changed before executing the service script associated with the action data, as required." (Reply Br. 4.) We do not agree.

The Examiner found that Beauregard teaches each of these limitations (Ans. 4), explaining that the multi-item resolution teachings of Beauregard teaches the limitation of reanalyzing the data (Ans. 4, 26-27). We agree with these findings.

In particular, the system of Beauregard monitors the user's input text stream and checks to determine whether the input is actionable. (FF 3-5.) Therefore, under the broadest reasonable interpretation consistent with the Specification, Beauregard teaches the claimed limitation of accessing data being added to an electronic document and monitoring to check if the data has been changed.

Beauregard also teaches that, in the case a dual word is entered, the user must disambiguate the dual word by, for example, pressing the space

bar twice. (FF 4.) Beauregard teaches an embodiment where the user selects an utterance, activates the word by pressing the space bar twice, and uses the space bar to toggle different options. (FF 5.) Moreover, Beauregard teaches a multi-item resolution window for allowing the user to select an item from a list when multiple items match an action word. (FF 8-9.) Therefore, under the broadest reasonable interpretation consistent with the Specification, Beauregard teaches the claimed limitation of reanalyzing the data to determine if the data has been changed.

With respect to independent claim 23, Appellants argue similarly to claim 1 that Beauregard does not teach accessing data being added to an electronic document while monitoring to check if the data has been changed and does not teach reanalyzing the data to determine if the data has been changed. (App. Br. 26-34; Reply Br. 2-5.) We do not agree and find that Beauregard teaches these limitations for the reasons discussed with respect to claim 1.

Similarly, with respect to independent claim 55, Appellants argue that Beauregard does not teach data added by a user that includes recognized semantic information while monitoring to check if the data has been changed and does not teach reanalyzing the data to determine if the data has been changed. (App. Br. 26-34; Reply Br. 2-5.) Again, we do not agree and find that Beauregard teaches these limitations for the reasons discussed with respect to claim 1.

In addition, Appellants argue that the Examiner has not given the claims their broadest reasonable interpretation because Beauregard does not disclose the two limitations listed above. (App. Br. 35-36.) We do not agree. As discussed, Beauregard teaches each and every limitation of

independent claims 1, 23, and 55. The Examiner's interpretation of the claims is reasonable, and Appellants have failed to demonstrate any inconsistency of that interpretation with the Specification.

Accordingly, we conclude that Appellants have not shown that the Examiner erred in rejecting independent claims 1, 23, and 55 under 35 U.S.C. § 102(e). Dependent claims 57-59 were not argued separately (App. Br. 70), and thus fall together with claim 55, from which they depend.

35 U.S.C. § 103(a) Rejection -- Beauregard

Claim 41

Appellants argue that Beauregard does not teach or suggest (1) a user interface for receiving data to be added to an electronic document while monitoring to check if the data has been changed and (2) if the data is recognized as including semantic information, then reanalyzing the data to determine if the data has been changed. (App. Br. 37-40; Reply Br. 5-6.) We do not agree because, as discussed above with respect to claim 1, we find that Beauregard teaches or would have suggested these limitations.

In addition, Appellants argue that Beauregard does not teach or suggest displaying an indication of the location of the recognized semantic information in the data being added. (App. Br. 39.) We do not agree.

Beauregard teaches that designated actions can be executed if the text entered by the user is actionable. (FF 6.) The designated actions include content functions such as text substitutions, punctuation, text formatting, and text content transformation. (FF 6.) Thus, for example, one of ordinary skill in the art would have recognized that regular text could be substituted with

bold or italics text, text of a different font or size, or highlighted text. In addition, an Internet address in plain text could be replaced with a hyperlink. Such substitutions were well known to those of ordinary skill in the art at the time of the invention and were commonly used, for example, in word processing programs. Under a broad but reasonable interpretation of the claim, the altered text would serve as an indication of the location of the recognized semantic information in the data being added, as claimed.

In addition, the Examiner found that one of ordinary skill in the art would have known to display indications such as hyperlinks "for recognized data which might later provide a service to a user." (Ans. 6-7, 29-30.) Appellants have not shown error in this finding.

Accordingly, we conclude that Appellants have not shown that the Examiner erred in rejecting claim 41 under 35 U.S.C. § 103(a).

Claim 42

Appellants argue that the Examiner erred in finding that, at the time the invention was made, it was known to use coloration, highlighting, brackets, and icons as effective visual indicators to identify information. (App. Br. 45.) We do not agree.

As discussed with respect to claim 41, Beauregard teaches that content functions such as text substitutions, punctuation, text formatting, and text content transformation can be executed if the text entered by the user is actionable (FF 6). One of ordinary skill in the art would have recognized that text substitutions and text formatting include, for example, substituting regular text with highlighted text, substituting text of one font color for a different font color, or substituting text for text with brackets. Thus,

Beauregard teaches or would have suggested or would have suggested the use of coloration, highlighting, and brackets, as claimed.

Accordingly, we conclude that Appellants have not shown that the Examiner erred in rejecting dependent claim 42 under 35 U.S.C. § 103(a).

Claim 43

With respect to dependent claim 43, we agree with Appellants that Beauregard does not teach or suggest displaying a nesting of indications of the locations of a plurality of semantic information if a plurality of semantic information is recognized in data being added to an electronic document. (App. Br. 46.)

The Examiner found that Beauregard does not teach displaying a nesting of indications of the locations of a plurality of semantic information if a plurality of semantic information is recognized in data being added to an electronic document. (Ans. 8.) The Examiner then asserted that "[i]t was known at the time of the invention to use a nested display to identify a plurality of identified information objects such as a graphical display of a file tree" (Ans. 8) and therefore found that it would have been obvious to have used such a nested display in Beauregard (Ans. 8). However, the Examiner did not support this conclusory reasoning with evidence or further explanation and, as a result, has not established a prima facie case of obviousness with respect to claim 43.

Therefore, we conclude that Appellants have shown that the Examiner erred in rejecting claim 43.

Claim 48

Appellants argue that the Examiner has not shown sufficient motivation to modify Beauregard and that there is no evidence that the claimed feature of providing a menu when the cursor is positioned over an indication of the location of recognized semantic information can be combined with Beauregard. (App. Br. 47.) We do not agree.

The Examiner correctly found that Beauregard teaches that if more than one potential action is associated with a recognized action word, then a menu is presented so that the user may select one of a plurality of actions. (Ans. 8, 46-47; FF 8-9.) Although Beauregard does not teach displaying the menu in response to the user positioning a cursor over an indication of the location of the recognized semantic information, the Examiner found that it would have been obvious to modify Beauregard to include this feature so that the user could access the actions associated with the semantic label. (Ans. 8, 46-47.) Appellants have not shown error with this finding.

We note that the plain language of the claim does not preclude actions, such as clicking a mouse button, in addition to positioning the cursor over the indication in order to cause the user interface to display a semantic label and associated actions. It was well known to those of ordinary skill in the art at the time of the invention to position a mouse cursor over an item and click on a mouse button (e.g., "right click") in order to display a menu associated with that item. For example, a document entitled "Getting Results with Microsoft Office 97" submitted in an Information Disclosure Statement received April 4, 2005 discloses a feature at page 72 where a menu associated with a possible spelling or grammar

error is displayed when the user moves a pointer over an indication of that information and right-clicks a mouse button.

In addition, we note that the feature of taking action based on a "roll-over" or "mouse-over" without clicking a mouse key was well known to those of ordinary skill in the art at the time of the invention. For example, the document entitled "Getting Results with Microsoft Office 97" submitted in an Information Disclosure Statement received April 4, 2005 discloses a "tip" feature at pages 415 and 420 where information related to a cell or a field of a document map is displayed when the user moves a pointer over an indication of that information.

Accordingly, we conclude that Appellants have not shown that the Examiner erred in rejecting claim 48 under 35 U.S.C. § 103(a).

Claim 49

With respect to dependent claim 49, we agree with Appellants that Beauregard does not teach or suggest displaying a nesting of a plurality of semantic labels and a plurality of actions associated with each semantic label if a plurality of semantic information is recognized in data being added to an electronic document. (App. Br. 48.)

The Examiner found that Beauregard does not teach displaying a nesting of a plurality of semantic labels. (Ans. 9.) The Examiner then asserted that "[i]t was known at the time of the invention to use a nested display to identify a plurality of identified information objects such as a graphical display of a file tree" (Ans. 9) and therefore found that it would have been obvious to have used such a nested display in Beauregard (Ans. 9). However, the Examiner did not support this conclusory reasoning

with evidence or further explanation and, as a result, has not established a prima facie case of obviousness with respect to claim 49.

Therefore, we conclude that Appellants have shown that the Examiner erred in rejecting claim 49.

Claims 50 and 52

Appellants summarily allege that claims 50 and 52 "are allowable at least due to their dependency upon an allowable independent claim." (App. Br. 70.) Because Appellants have not persuasively rebutted the Examiner's prima facie case of obviousness for dependent claims 50 and 52, we will sustain the rejection of claims 50 and 52 for the reasons discussed with respect to independent claim 41, from which claims 50 and 52 depend.

Claim 51

With respect to dependent claim 51, we agree with Appellants that Beauregard does not teach or suggest wherein the recognized semantic information is a photograph, as claimed. (App. Br. 48-51.)

The Examiner found that Beauregard teaches that the semantic information is a photograph and wherein the selected associated action is electronically mailing a link to the photograph. (Ans. 9, 36.) However, we find no such teaching or suggestion in Beauregard at the portions of Beauregard cited by the Examiner, or anywhere else in Beauregard.

Therefore, we conclude that Appellants have shown that the Examiner erred in rejecting claim 51.

Claim 53

Appellants argue that Beauregard does not teach or suggest determining whether an action program module assigned to the selected action is available and, if so, receiving instructions from the action program module, as claimed. (App. Br. 51-53.) We do not agree.

The Examiner correctly found that Beauregard teaches these limitations. (Ans. 10, 37; FF 5-9.) In particular, Beauregard teaches that if the text entered by the user is actionable, a service script is executed to perform a designated action such as a command function, content function, or navigation function. (FF 5-6.) Therefore, under a reasonable interpretation of the claim, Beauregard teaches or would have suggested receiving instructions from the action program module (service script) to perform that selected action. Also, Beauregard teaches or would have suggested determining whether the action program module (service script) is available by executing the service script. The selected action cannot be performed if the service script is not available.

Accordingly, we conclude that Appellants have not shown that the Examiner erred in rejecting claim 53 under 35 U.S.C. § 103(a).

Claim 54

Appellants argue that the Examiner has not shown sufficient motivation to modify Beauregard and that there is no evidence that the claimed feature of downloading missing program modules can be combined with Beauregard. (App. Br. 53-54.) We do not agree.

The Examiner correctly found that, even though Beauregard does not teach using a Uniform Resource Locator (URL) assigned to the selected

action to download the action program module if the action program module is not available, a person of ordinary skill in the art at the time of the invention would have known to download program modules using a URL. (Ans. 10, 49-50.) Indeed, it would have been common sense for one of ordinary skill in the art to have downloaded missing program modules using a URL. *See Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, 485 F.3d 1157, 1161 (Fed. Cir. 2007) (citing *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739 (2007)) ("Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not.").

Accordingly, we conclude that Appellants have not shown that the Examiner erred in rejecting claim 54 under 35 U.S.C. § 103(a).

Claims 60-75³

With respect to independent claim 60, we agree with Appellants that Beauregard does not teach or suggest a user interface displaying an indication that a semantic label was applied to recognized semantic information, as claimed. (App. Br. 40-45; Reply Br. 6.)

The Examiner found that, since Beauregard immediately acts upon the recognized data, it does not teach displaying an indication of the location of the recognized semantic indication in the data being added. (Ans. 12, 32.) The Examiner also found that at the time of the invention, it was known to display indications such as a hyperlink for recognized data that might later

³ Although claims 62-67 were rejected under 35 U.S.C. § 103(a) as being obvious over Beauregard and Craft, we include them here due to the reversal of the rejection of independent claim 60, from which claims 62-67 depend.

provide a service to a user. (Ans. 12.) The Examiner then stated without evidence or further reasoning that "[i]t would have been obvious and desirable to have used the recognition and labeling system of Beauregard to have identified useful semantic information and labeled it appropriately and then marked the semantic information using visual indications such that the semantic information could be used by the user at a later time." (Ans. 12.)

However, the Examiner has not provided evidence or an explanation of how Beauregard teaches or suggests displaying an indication that a semantic label was applied to recognized semantic information and, as a result, has not established a prima facie case of obviousness with respect to claim 60.

Therefore, we conclude that Appellants have shown that the Examiner erred in rejecting claim 60 and claims 61-75, which depend from claim 60.

35 U.S.C. § 103(a) Rejection -- Beauregard and Craft

Claims 2-4, 11, 16, 24-26, 33, 37, 44, and 56

Appellants have argued claims 2-4, 11, 16, 24-26, 33, 37, 44, and 56 together as a group. (App. Br. 62-64.) Thus, in accordance with 37 C.F.R. § 41.37(c)(1)(vii), we select claim 2 as representative.

Appellants argue that there is no proper motivation to combine the disclosures of Beauregard and Craft. (App. Br. 62-64.) We do not agree.

The Examiner correctly found that although Beauregard does not teach that the data being added to the electronic document includes a media object and the semantic label is applied to semantic information recognized

in the data related to the media object, Craft teaches these features. (Ans. 17; FF 10.)

The Examiner also found that it would have been obvious to one of ordinary skill in the art at the time of the invention to have combined the media object tagging teachings of Craft with the system of Beauregard "so that . . . data other than text would have been recognized for semantic labeling [which] would have enabled additional data such as image data to be tagged as is shown by Craft in fig. 5." (Ans. 17.) Appellants have not shown error in this reasoning.

Accordingly, we conclude that Appellants have not shown that the Examiner erred in rejecting claim 2 under 35 U.S.C. § 103(a). Claims 3-4, 11, 16, 24-26, 33, 37, 44, and 56 were argued as a group with claim 2, and fall together with claim 2.

Claims 5-10, 18, 27-32, 38, and 45-47

Appellants summarily allege that claims 5-10, 18, 27-32, 38, and 45-47 "are allowable at least due to their dependency upon an allowable independent claim." (App. Br. 70.) Because Appellants have not persuasively rebutted the Examiner's prima facie case of obviousness for dependent claims 5-10, 18, 27-32, 38, and 45-47, we will sustain the rejection of claims 5-10, 18, 27-32, 38, and 45-47 for the reasons discussed with respect to independent claims 1, 23, and 41, from which claims 5-10, 18, 27-32, 38, and 45-47 depend.

Claims 12 and 34

Appellants have argued claims 12 and 34 together as a group. (App. Br. 64-65.) Thus, in accordance with 37 C.F.R. § 41.37(c)(1)(vii), we select claim 12 as representative.

Appellants argue that "[s]ince Beauregard does not teach or suggest a recognizer component coupled to the application program module for receiving semantic information in data being added to the electronic document, and for monitoring said data to check if it has been changed, it is self-evident that Beauregard cannot teach the claim recitation of Claims 12 and 34". (App. Br. 65.) We do not agree.

The Examiner correctly found that the combination of Beauregard and Craft teaches or would have suggested these limitations because the combined references teach comparing data related to a media object with stored data associated with stored semantic labels to find a match, and if a match is found, determining the stored semantic label associated with the match and applying the stored semantic label to the recognized semantic information. (Ans. 19-20; FF 3-5.) Appellants have not demonstrated error in these findings.

Accordingly, we conclude that Appellants have not shown that the Examiner erred in rejecting claim 12 under 35 U.S.C. § 103(a). Claim 34 was argued as a group with claim 12, and falls together with claim 12.

Claims 13 and 35

With respect to claims 13 and 35, we agree with Appellants that neither Beauregard nor Craft teach or suggest modifying the content of the

electronic document to reflect the semantic label, as claimed. (App. Br. 65-66.)

The Examiner found that Beauregard does not teach modifying the content of the electronic document to reflect the semantic label. (Ans. 20.) The Examiner then asserted that "it was known how to insert display indications into a document for recognized data which might later provide a service to a user such as a hypertext link enabling a user to link to another document or file" (Ans. 20) and therefore found that it would have been obvious to have used the system of Beauregard "to have identified useful semantic information and labeled it appropriately and then modified the document to have marked the semantic information using visual indications such that the semantic information could be used by the user at a later time than when it was originally entered" (Ans. 20-21). However, the Examiner did not support this conclusory reasoning with evidence or further explanation and, as a result, has not established a prima facie case of obviousness with respect to claims 13 and 35.

Therefore, we conclude that Appellants have shown that the Examiner erred in rejecting claims 13 and 35.

Claims 14 and 36

With respect to claims 14 and 36, we agree with Appellants that neither Beauregard nor Craft teach or suggest displaying an indication that the semantic label has been applied, as claimed. (App. Br. 66-67.)

The Examiner found that Beauregard does not teach displaying an indication of the location of the recognized semantic information in the data being added. (Ans. 21.) The Examiner then asserted that "it was known

how to display indications for recognized data which might later provide a service to a user such as a hypertext link enabling a user to link to another document or file" (Ans. 21) and therefore found that it would have been obvious to have used the system of Beauregard "to have identified useful semantic information and labeled it appropriately and then marked the semantic information using visual indications such that the semantic information could be used by the user at a later time than when it was originally entered" (Ans. 21). However, the Examiner did not support this conclusory reasoning with evidence or further explanation and, as a result, has not established a prima facie case of obviousness with respect to claims 14 and 36.

Therefore, we conclude that Appellants have shown that the Examiner erred in rejecting claims 14 and 36.

Claims 15, 17, and 21-22

No arguments were presented with respect to dependent claims 15, 17, and 21-22. Because Appellants have not persuasively rebutted the Examiner's prima facie case of obviousness for dependent claims 15, 17, and 21-22, we will sustain the rejection of claims 15, 17, and 21-22 and for the reasons discussed with respect to independent claim 1, from which claims 15, 17, and 21-22 depend.

Claims 19 and 39

Appellants have argued claims 19 and 39 together as a group. (App. Br. 67-69.) Thus, in accordance with 37 C.F.R. § 41.37(c)(1)(vii), we select claim 19 as representative.

Appellants argue that Beauregard does not teach or suggest determining whether an action program module assigned to the selected action is available and, if so, receiving instructions from the action program module, as claimed. (App. Br. 67-69.) We do not agree.

The Examiner correctly found that Beauregard teaches these limitations. (Ans. 22; FF 5-9.) In particular, Beauregard teaches that if the text entered by the user is actionable, a service script is executed to perform a designated action such as a command function, content function, or navigation function. (FF 5-6.) Therefore, under a reasonable interpretation of the claim, Beauregard teaches or would have suggested receiving instructions from the action program module (service script) to perform that selected action. Also, Beauregard teaches or would have suggested determining whether the action program module (service script) is available by executing the service script. The selected action cannot be performed if the service script is not available.

Accordingly, we conclude that Appellants have not shown that the Examiner erred in rejecting claim 19 under 35 U.S.C. § 103(a). Claim 39 was argued as a group with claim 19, and falls together with claim 19.

Claims 20 and 40

Appellants have argued claims 20 and 40 together as a group. (App. Br. 69-70.) Thus, in accordance with 37 C.F.R. § 41.37(c)(1)(vii), we select claim 20 as representative.

Appellants argue that the Examiner has not shown sufficient motivation to modify Beauregard and that there is no evidence that the

feature of downloading missing program modules can be combined with Beauregard. (App. Br. 70.) We do not agree.

The Examiner correctly found that, even though Beauregard does not teach using a Uniform Resource Locator (URL) assigned to the selected action to download the action program module if the action program module is not available, a person of ordinary skill in the art at the time of the invention would have known to download program modules using a URL. (Ans. 23.) Indeed, it would have been common sense for one of ordinary skill in the art to have downloaded missing program modules using a URL. *See Leapfrog*, 485 F.3d at 1161 (citing *KSR*, 127 S. Ct. at 1739) ("Indeed, the common sense of those skilled in the art demonstrates why some combinations would have been obvious where others would not.").

Accordingly, we conclude that Appellants have not shown that the Examiner erred in rejecting claim 20 under 35 U.S.C. § 103(a). Claim 40 was argued as a group with claim 20, and falls together with claim 20.

CONCLUSION OF LAW

Based on the findings of facts and analysis above, we conclude that:

(1) Appellants have not shown that the Examiner erred in rejecting claims 1, 23, 55, and 57-59 for anticipation under 35 U.S.C. § 102(e).

(2) Appellants have not shown that the Examiner erred in rejecting claims 2-12, 15-22, 24-34, 37-42, 44-48, 50, 52-54, and 56 for obviousness under 35 U.S.C. § 103.

(3) Appellants have shown that the Examiner erred in rejecting claims 13-14, 35-36, 43, 49, 51, and 60-75 for obviousness under 35 U.S.C. § 103.

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DECISION

The rejection of claims 1, 23, 55, and 57-59 for anticipation under 35 U.S.C. § 102(e) is affirmed.

The rejection of claims 2-12, 15-22, 24-34, 37-42, 44-48, 50, 52-54, and 56 for obviousness under 35 U.S.C. § 103 is affirmed.

The rejection of claims 13-14, 35-36, 43, 49, 51, and 60-75 for obviousness under 35 U.S.C. § 103 is reversed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART

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