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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JIE LIU, SUMAN KUMAR NATH, JITENDRA D. PADHYE, and LENIN RAVINDRANATH SIVALINGAM

Appeal 2019-006289
Application 14/959,938
Technology Center 2100

Before CARL W. WHITEHEAD JR., DAVID M. KOHUT, and IRVIN E. BRANCH, *Administrative Patent Judges*.

PUR CURIAM, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the Examiner's decision to reject claims 1–3, 5–14, 16–18, and 21–24.[2] We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

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[1] We use "Appellant" to reference the applicant as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as "Microsoft Technology Licensing, LLC." Appeal Br. 2.

[2] Claims 4, 15, 19, and 20 were previously cancelled.

STATEMENT OF THE CASE

Appellant's Invention

Appellant's invention relates to a "deep application crawling technique [that] crawls one or more applications, commonly referred to as 'apps', in order to extract information inside of them." Spec., Abst. Independent claim 1, reproduced below, is illustrative of argued subject matter.

> 1. A computing system comprising:
>
> at least one processor; and
>
> memory that comprises instructions that, when executed by the at least one processor, cause the at least one processor to perform acts comprising:
>
> responsive to receipt of a query from a mobile computing device, executing a search over indexed data for content related to the query, the indexed data that is searched over comprises data extracted from within an application, the application is available for download from a marketplace of applications, wherein the data extracted from within the application comprises at least one of:
>
> data extracted from binary code of the application; or
>
> data retrieved by the application from a web page when the application was previously executed; and
>
> based upon the search, providing search results to the mobile computing device, the search results comprise the data extracted from the application.

Appeal Br. 17 (Claims Appendix).

Independent claim 21, reproduced below, is also illustrative of argued subject matter.

> 21. A mobile computing device comprising:
>
> a processor; and

memory storing instructions that, when executed by the processor, cause the processor to perform acts comprising:

receiving a search query;

invoking a search by a search engine based on the received search query, the search being over indexed data for generating search results, wherein the indexed data comprises data retrieved by the application from a web page when the application was previously executed, the application is configured to be executed on the mobile computing device, the application available for download from a marketplace of applications, and wherein the data extracted from within the application is identified during the search as being relevant to the query;

receiving the search results; and

responsive to receiving the search results, displaying an indication that a search result in the search results corresponds to the application when the application is installed on the mobile computing device and a link to download the application from the marketplace of applications when the mobile computing device fails to have the application installed thereon.

Appeal Br. 20 (Claims Appendix).

Rejections

Claims 1–3, 5, 8, 9, 11–14, and 18 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Macbeth (US 2012/0124062 A1; May 17, 2012) and Wyatt (US 2012/0240236 A1; Sept. 20, 2012). Final Act. 7–14.[3]

[3] The statement of rejection (Final Act. 7) incorrectly lists claims 21–24 for this rejection. Claims 21–24 are not addressed by the body of this rejection. Final Act. 7–14. Claims 21–24 are addressed by the statement and body of another rejection. Final Act. 19–23.

Claims 6, 7, and 17 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Macbeth, Wyatt, and Tuttle. Final Act. 14–17.

Claims 10 and 16 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Macbeth, Wyatt, and Tullis (US 2012/0124028 A1; May 17, 2012). Final Act. 17–19.

Claims 21–24 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Macbeth and Tuttle (US 7,584,194 B2; Sept. 1, 2009). Final Act. 19–23.

OPINION

Claims 1–3, 5, 9, 11–14, and 18; Representative Claim 1

Appellant argues claims 1–3, 5, 9, 11–14, and 18 with reference to claim 1. Appeal Br. 7–11 (addressing claim 1), 12 (contending claim 11 is allowable because its "features are similar to those recited in claim 1"), 14 (contending claims 2, 3, 5, 9, 12–14, and 18 "are allowable [because] of their dependency" from claims 1 and 11). We agree claim 1 is representative. *See* 37 C.F.R. § 41.37(c)(1)(iv). For the following reasons, we are unpersuaded of error in the rejection of claim 1 and accordingly sustain the rejections of claims 1–3, 5, 9, 11–14, and 18.

Appellant contends the applied prior art does not teach or suggest the following claim limitations:

> executing a search over indexed data for content related to the query, the indexed data that is searched over comprises data extracted from within an application, the application is available for download from a marketplace of applications, wherein the data extracted from within the application comprises at least one of data extracted from binary code of the application; or data retrieved by the application from a web page when the application was previously executed;

Appeal Br. 7 (identifying the limitations), 10–13 (addressing Macbeth).

Appellant characterizes the above limitations as follows (strikethrough added):

> The features of claim 1 highlight that data in the index that is searched over is extracted from within an application, *wherein the application is available for download from a marketplace of applications,* and further wherein the data extracted from within the application includes at least one of: 1) data extracted from binary code of the application*; or* 2) *data retrieved by the application from a web page when the application was previously executed*.

Appeal Br. 8.

In asserting all the above features against the rejection of claim 1 (as "highlighted features . . . not suggested by the cited references of record" (*id.* at 7–8)), Appellant argues the first italicized limitation against a reference (Tuttle)[4] unapplied in the rejection and neglects the second italicized limitation is an alternative feature (*see* Manual of Patent Examining Procedure § 2173.05(h), "Alternative Limitations") unaddressed by the rejection. We accordingly consider only the non-italicized limitation in our analysis for claim 1.

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[4] The Final Action states, in the "Response to Arguments" section, that the first struck-through feature (and, specifically, the above block-quoted limitations (*supra* 4)) "will be rejected under new ground of rejection, i.e., 103 rejection by the combination of Macbeth with EITHER Wyatt OR Tuttle." Final Act. 3. However, the actual new ground of rejection (i.e., the presently standing rejection) does not list Tuttle in the statement of rejection or address Tuttle in the body of the rejection. *Id.* at 7–9 (present rejection). The actual new ground of rejection, which changes the rejection's statutory basis from 35 U.S.C. § 102(a) to § 103(a), applies only Macbeth and Wyatt. *Id.*; *see also* Non-Final Act. (Dec. 12, 2017) at 4 (rejecting claim 1 under § 102(a)). Claim 1 is not rejected over Tuttle.

With respect to the at-issue claim limitations (i.e., above non-italicized limitations), Appellant contends the rejection relies on paragraphs of Macbeth that do not teach or suggest the limitations in two respects. Appeal Br. 8–9. Appellant first contends "paragraphs [30–31] of Macbeth disclose that the index includes titles of applications and metadata describing the applications[,] but [are] silent as to the index including any content extracted from within the applications." Appeal Br. 9. Appellant secondly contends

> [p]aragraph [69] of Macbeth [discloses that] . . . the index searched over to identify apps is limited to including metadata about the application, such as data that the developer of the app has set forth to describe the application and/or title of the application[;] Macbeth makes no reference to an ability to crawl an application itself.

Id. Appellant additionally contends the Examiner's proposed combination of Macbeth's and Wyatt's teachings does not cure Macbeth's above-alleged deficiencies because:

> Macbeth describes the conventional approach, where author-generated metadata (a title of the application and/or descriptive metadata assigned to the application) is used to index the application. . . . Wyatt describes detecting that an app may include malware based upon a comparison between a binary file for the app and a binary file for a known "safe" app. . . . .[Thus, t]here is nothing in either Macbeth or Wyatt that suggests . . . part of [a] binary file of [an] app . . . can be used to index such app.

Id. at 10.

We are unpersuaded of error because the Examiner relies on additional disclosures of Macbeth and Wyatt that are not addressed by Appellant and suggest the at-issue claim features (above non-italicized limitations). Final Act. 2–6 (Macbeth ¶¶ 25, 28, 31, 50, 54–56, 60, 69–70;

Wyatt ¶¶ 242, 262), 7–9 (Macbeth ¶¶ 28, 30–31, 35, 38, 39, 47, 69; Wyatt ¶¶ 242, 262); Ans. 4–6 (Macbeth ¶¶ 2, 28, 31, 40, 50; Wyatt ¶¶ 255–56, 262). Specifically, cited paragraphs disclose an application crawler/indexer that extracts and indexes information embedded within applications. Macbeth ¶¶ 28, 40, 50; Wyatt ¶¶ 255–56, 262. The paragraphs disclose the embedded information (i.e., extracted and indexed) may be parameters such as functions and content for performing tasks. Macbeth ¶¶ 3, 28. The paragraphs disclose the functions and content may be embedded in the application's binary data, e.g., as embedded permissions. Wyatt ¶ 255, 262. The paragraph further discloses indexed parameters may be query-searched and returned. Macbeth ¶¶ 3, 31, 40, 50; Wyatt ¶ 255–56. We agree with the Examiner that this combination yields the at-issue claim limitations.

In the Reply Brief, Appellant contends the Examiner presents an unreasonable claim interpretation: "Th[e] overly broad interpretation of 'data extracted from within an application', which would encompass metadata assigned to an application by a developer (in contrast to data within the application itself), is inconsistent with the specification." Reply Br. 3. We are unpersuaded of error because, even assuming the Examiner's claim interpretation is unreasonable, the above combination of Macbeth and Wyatt discloses the disputed claim limitations.

In the Reply Brief, Appellant also contends: "From a fair reading of Macbeth, in the application index 610, the applications are not indexed by features/content, in contrast to the statement of the Examiner." *Id.* at 5. Appellant further contends:

> Macbeth notes that Fig. 6 depicts an example call to a specific feature level within an application. . . . [T]he app search service

> 124 can identify that the intent of the searcher is to read reviews for the restaurant . . . and can ascertain that an application (Yelp®) has a reviews section due to . . . parameters set forth by the developer[, which] . . . cannot fairly be characterized as being extracted from within an application. In other words, Macbeth does not contemplate that the Yelp® application is crawled to identify the "reviews" section, but instead teaches that the developer identifies the reviews section in the parameters.

Id. at 6.

We are unpersuaded of error. Appellant does not explain why the above Yelp® reviews would not be understood as an extracted and indexed "parameter" of the Yelp® application. *See* Reply Br. 6. As discussed, Macbeth teaches that parameters are crawled and thereby extracted/indexed. *See* Reply Br. 7. Macbeth teaches that these "[p]arameters . . . within an app include . . . functions to perform a task." Macbeth ¶ 28. Macbeth discloses the Yelp® reviews are such parameters (objects) by stating: "[T]he ranking has identified Yelp® . . . Reviews as the inferred task the user desires to access." Macbeth ¶ 58.

Claims 8 and 13; Representative Claim 8

Appellant argues claims 8 and 13 with reference to claim 8. Appeal Br. 13–14. We agree claim 8 is representative. For the following reasons, we are unpersuaded of error in the rejection of claim 8 and accordingly sustain the rejections of claims 8 and 13.

Claim 8 depends from claim 1 and adds that "the data extracted from within the application, when included in the search results, is indicated as corresponding to the application." Appeal Br. 18 (Claims Appendix). Appellant contends Macbeth's cited disclosures do not suggest these limitations because (bracketed numerals added):

> Figs. 5–6 of Macbeth illustrate a list of search results using the Bing® search engine app[.] . . . Macbeth provides an example where . . . [:] the Bing® search application can indicate that Yelp® is the better app to use in (in a particular instance)[; and, t]he architecture . . . uses the query 604, the contextual information 606, and the inferred tasks 608 to rank applications and direct the user to a specific feature level within the chosen application as a result of the search. . . . There is no discussion . . . , however, of [1] any search results including content extracted from within applications, [2] much less content extracted . . . being indicated as belonging to the application.

Appeal Br. 13.

We are unpersuaded because argued limitation "1" is suggested by the above combination of Macbeth and Wyatt. *See* Final Act. 7. Specifically, the feature is suggested because Macbeth's "indexer 306 accumulates the information from the crawler 302 . . . into a format . . . that provides a useful result in response to a submitted query." Macbeth ¶ 50. Thus, the combination's indexer extracts information from within applications, indexes the information into a format for providing query results, and accordingly provides query results that include information extracted (and indexed) from within applications. *See also* Final Act. 7 (described combination).

Further, claim limitations "1" and "2" are suggested by Macbeth's cited Figures 5–6. Specifically, the searched index of extracted data is shown as including reviews extracted from the Yelp® application. Macbeth Fig. 6 (showing an "I Love Sushi" query returns Yelp® reviews from the application index). The returned results (i.e., reviews) are also shown, to the user, as corresponding to Yelp®. *Id.* at Fig. 5 (showing Yelp® "I Love Sushi" review).

Claims 6, 7, 10, 16, and 17

Dependent claims 6, 7, 10, 16, and 17 are not separately argued. Appeal Br. 14. We are not persuaded of error in the rejections of their base and intervening claims. We accordingly sustain the rejections of claims 6, 7, 10, 16, and 17.

Claims 21–24; Representative Claim 21

Appellant argues claims 21–24 with reference to claim 21. Appeal Br. 15. For the following reasons, we are unpersuaded of error in the rejection of claim 21 and accordingly sustain the rejections of claims 21–24.

Independent claim 21 is similar to claim 1, but differs inasmuch that claim 21's scope is restricted to alternative limitation "2" of claim 1; i.e., that is, claim 21 recites limitation "2" of claim 1 instead of reciting "1" and "2" of claim 1 (which are alternative limitations). Claim 21 recites: "the indexed data comprises data retrieved by the application from a web page when the application was previously executed."

Addressing the above limitation, Appellant contends:

> [This feature is] directed towards when an application, when executing, retrieves content from a web page. For instance, a weather application, when executed by a mobile telephone, may retrieve weather information from a web page. . . . Tuttle describes a web crawler that crawls a web page[, but does] not suggest crawling a web page . . . retrieved by an application.

Appeal Br. 15.

We are unpersuaded of error because the argument neglects the combination of the references. Macbeth is cited as teaching an application crawler that indexes "any kind of information associate[d with] applications." Final Act. 5. Tuttle is cited to show that, at the time of

Appellant's invention, application crawlers had the capability to instantiate and crawl a webpage. *Id.* at 5–6. The combination of Macbeth and Tuttle thereby suggests an application crawler that instantiates and crawls an associated webpage to index its information. *Id.*; *see also* Final Act. 21–22. We add that Macbeth's indexed parameters include "[c]ontent 114 . . . such as a map" (Macbeth ¶ 28), which is indicative of webpage content.

Appellant also argues the following "marketplace" limitation of claim 21: "the application available for download from a marketplace of applications." Appeal Br. 15; see also supra n.3 ("first italicized" limitation of claim 1). Specifically, Appellant contends:

> [T]he Examiner cites Macbeth as suggesting indexed data, and asserts that one would modify the indexed data of Macbeth to include data extracted from a web page by the web crawler of Tuttle. . . . The crawler of Tuttle, however, is not described as being capable of crawling an app that is available in an app store[.]

Id.

We are unpersuaded of Examiner error.

Appellant's argument is premised upon the ***unsupported*** assertion that "[c]onventional Web crawlers (like the crawler of Tuttle) are unable to crawl apps that are available by way of application marketplaces[] because such applications are configured to prevent crawling (e.g., the applications are 'walled gardens')." Appeal Br. 11. Such mere attorney argument is not persuasive. *See In re Geisler*, 116 F.3d 1465, 1470 (Fed. Cir. 1997) ("An assertion of what seems to follow from common experience is just attorney argument and not the kind of factual evidence that is required to rebut a prima facie case of obviousness.").

OVERALL CONCLUSION

We affirm the Examiner's decision to reject claims 1–3, 5–14, 16–18, and 21–24.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	References	Affirmed	Reversed
1–3, 5, 8, 9, 11–15, 18, 21–24	103	Macbeth, Wyatt	1–3, 5, 8, 9, 11–14, 18, 21–24	
21–24	103	Macbeth, Tuttle	21–24	
6, 7, 17	103	Macbeth, Wyatt, Tuttle	6, 7, 17	
10, 16	103	Macbeth, Wyatt, Tullis	10, 16	
Overall Outcome			1–3, 5–14, 16–18, 21–24	

TIME PERIOD FOR RESPONSE

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

AFFIRMED