## Exhibit 25

## UNITED STATES DISTRICT COURT EASTERN DISTRICT OF VIRGINIA NORFOLK DIVISION

I/P ENGINE, INC.,		)))
V.	Plaintiff,	) ) )
۷.		)
AOL, INC. et al.,		)
	Defendants.	) ) )

Civ. Action No. 2:11-cv-512

## REBUTTAL EXPERT REPORT OF DR. JAIME CARBONELL REGARDING VALIDITY OF U.S. PATENT NOS. 6,314,420 and 6,775,664

75. With respect to claim 28 of the '664 patent, although Dr. Ungar states that Lashkari anticipates claim 28 of the '664 patent, I disagree. For the reasons already noted in connection with claim 26, from which claim 28 depends, claim 28 is not anticipated by Lashkari.

76. With respect to claim 38 of the '664 patent, although Dr. Ungar states that Lashkari anticipates claim 38 of the '664 patent, I disagree. For the reasons already noted in connection with claim 26, from which claim 38 depends, claim 38 is not anticipated by Lashkari.

## XI. U.S. PATENT NO. 6,185,558 TO BOWMAN ("BOWMAN") DOES NOT INVALIDATE THE PATENTS-IN-SUIT

77. Defendants and Dr. Ungar assert that Bowman anticipates claims 10, 14, 15, 25,

27 and 28 of the '420 patent and claims 1, 5, 6, 21, 22, 26, 28 and 38 of the '664 patent. I disagree.

78. With respect to claims 10, 14, 15, 25, 27 and 28 of the '420 patent, Bowman does not disclose:

- "filtering the informons on the basis of applicable content profile data for relevance to the query"; and
- "combining pertaining feedback data . . . with the content profile data in filtering each informon for relevance to the query."

79. Because Bowman does not disclose all of the limitations of claims 10 and 25 of the '420 patent, Bowman cannot disclose all of the limitations recited by claims 14, 15, 27, and 28 of the '420 patent.

80. With respect to claims 1, 5, 6, 21, 22, 26, 28 and 38 of the '664 patent, Bowman does not disclose:

- "searching for information relevant to a query associated with a first user"
- "combining the information from the feedback system with the information from the scanning system and . . . filtering the combined information for relevance to at least

one of the query and the first user" or "combining the information found to be relevant to the query by other users with the searched information [and] . . . filtering the combined information for relevance to at least one of the query and the first user" as recited in claims 1 and 26 of the '664 patent, respectively.

81. Because Bowman does not disclose all of the limitations of claims 1 and 26 of the '664 patent, Bowman cannot disclose all of the limitations recited by claims 5, 6, 21, 22, 28 and 38 of the 664 patent.

82. First, Bowman does not disclose "filtering the informons on the basis of applicable content profile data for relevance to the query" or "searching for information relevant to a query associated with a first user." Dr. Ungar states in paragraph 57, as part of his general description of Bowman, that "search results whose content contains all the terms in the query get higher ranking scores while search results get progressively lower ranking scores as their content contains fewer and fewer of the terms in the query." I disagree. Bowman discloses ranking items "in accordance with collective and individual user behavior, rather than in accordance with attributes of the items." Bowman 2:63-3:2; 4:38-48.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> Bowman initially establishes a rating table without any entries. *See* FIGS. 3, 4 or 6; 5:48-49. To populate the ranking table with entries, Bowman discloses "the facility identifies all of the query result item selections made by users during the period of time for which rating table is being generated." Bowman 5:49-51. Bowman then "identifies the terms used in the query that produced the query result in which the item selection took place." Bowman 5:60-62. The scores in the rating table are augmented when a user clicks on a result by incrementing the score of each term in the query, whether or not that term is actually is contained in the search results. Bowman 6:9-25. Bowman's "facility uses rating tables that it has generated to generate ranking values for items in new query results." Bowman 9:28-29. The facility determines the rating score contained by the most recently generated rating table for the current term and item. Bowman 9:35-39. Bowman's "facility combines the scores for the current item to generate a ranking value for the item. Bowman 9:41-43. To process a new query at run time, Bowman consults the rating table and adds the scores for each terms associated with the item in the query, ranking the items by their ranking scores. Bowman 9:48-49. Bowman also discloses that "scores may be adjusted to more directly reflect the number of query terms that are matched by the item." Bowman 9:50-53.

83. Dr. Ungar then relies upon a described example using an example query "Paris museum vacations" to support his point. Dr. Ungar's example, however, presupposes that Bowman has full search engine capabilities in combination with the use of a popularity ranking system when in fact Bowman only discloses the latter. Bowman 2:19-35; 2:63-3:2; 4:38-48.

84. In paragraph 60 of his report, Dr. Ungar states that "in Bowman, the final ranking score for each item is generated through "a combination [that includes] . . . content-based filtering (analyzing the item's content to see how many of the words from the query appear in the item)." I disagree. As stated above, Bowman does not analyze the items' content, but instead relies on his rating table.<sup>3</sup>

85. Specifically referencing "filtering the informons on the basis of applicable content profile data for relevance to the query" limitation of claim 10 of the '420 patent, Dr. Ungar states in paragraph 105 that Bowman discloses this limitation because "Bowman examines each search result's content profile to see how many of the query terms are contained therein." He goes on to state that "Bowman adjusts the search results ranking scores by giving higher scores to search results every term in the query." First, Dr. Ungar misquotes Bowman. Bowman states "scores may be adjusted to more directly reflect the number of query terms that are matched by the item, so that the items that match more query terms are favored in the ranking." Bowman 4:34-48. As such, Bowman makes no reference to examining a "search results' content profile" or any

<sup>&</sup>lt;sup>3</sup> In paragraph 99 of his report, Dr. Ungar states that "Bowman further adjusts the ranking score of the search results according to how many of the search terms in the query are matched by each search result." It is apparent that, by "matched," Dr. Ungar means that a term of the query is actually found in the document. In my opinion a person of ordinary skill in the art would understand that Bowman uses the word "matched" to indicate that term-item association is contained in Bowman's rating table rather than contained in the item (document). This opinion is fully consistent with Bowman's disclosure of ranking items "in accordance with collective and individual user behavior, rather than in accordance with attributes of the items." Bowman 2:59-3:22; 4:38-48.

refers to only user feedback from prior users with no reference to item (document) contents or other search engine rankings.

88. In paragraph 114 of his report, Dr. Ungar further states that Bowman discloses the "content-based' aspect of this claim element." I again disagree. Dr. Ungar misconstrues Bowman. Bowman discloses that "scores may be adjusted to more directly reflect the number of query terms that are matched by an item." As explained above, in my opinion a person of ordinary skill in the art would understand that Bowman uses the word "matched" to indicate that term-item association is contained in Bowman's rating table rather than contained in the item (document). This opinion is fully consistent with Bowman's disclosure of ranking items "in accordance with collective and individual user behavior, rather than in accordance with attributes of the items." Bowman 2:59-3:22; 4:38-48. Bowman does not refer to the search result's content, or terms appearing in the search result.

89. Second, because Bowman does not disclose a content-based information component, it does not disclose "combining pertaining feedback data . . . with the content profile data"; "combining the information from the feedback system with the information from the scanning system"; or "combining the information found to be relevant to the query by other users with the searched information."

90. Third, Bowman does not disclose "filtering each informon on the basis of applicable content profile data for relevance to the query," "filtering each informon for relevance to the query" or "filtering the combined information for relevance to at least one of the query and the first user" because Bowman does not disclose filtering. Dr. Ungar states that "Bowman then filters out (i.e., excludes) search results whose ranking scores fall below a certain threshold, or presents a predetermined number of search results that have the highest ranking scores and filter

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out all the rest." First, filtering is different from "subsetting," the actual technique disclosed in Bowman on which Dr. Ungar relies. "Subsetting" as disclosed in Bowman is retaining a subset of a ranked list either by thresholding on ranking values or retaining the top "N" results. Bowman 9:58-64. These techniques are relative and carried out with reference to the entire ranked list of search results. The use of these techniques is different than filtering, which does not use a ranked list, but rather is an item-by-item process.<sup>4</sup>

91. Moreover, also for the reasons noted above, Bowman does not disclose filtering. *See* Bowman 9:58-67.

92. With respect to claims 14 and 15 of the '420 Patent, although Dr. Ungar states that Bowman anticipates claims 14 and 15 of the '420 patent, I disagree. For the reasons already noted in connection with claim 10, from which claims 14 and 15 depend, claims 14 and 15 are not anticipated by Bowman.

93. With respect to claim 25 of the '420 patent, Dr. Ungar states that Bowman anticipates claim 25 for the same reasons that it anticipates claim 10. Thus, for at least the reasons that I have opined with respect to claim 10, claim 25 is not anticipated by Bowman. With respect to claims 27 and 28 of the '420 Patent, although Dr. Ungar states that Bowman anticipates claim 25 of the '420 patent, I disagree. For the reasons already noted in connection with claim 25, from which claims 27 and 28 depend, claims 27 and 28 are not anticipated by Bowman.

94. With respect to claim 5 of the '664 patent, although Dr. Ungar states that Bowman anticipates claim 5 of the '664 patent, I disagree. For the reasons already noted in connection with claim 1, from which claim 5 depends, claim 5 is not anticipated by Bowman.

<sup>&</sup>lt;sup>4</sup> In footnote 16, Dr. Ungar states that the "content-based filter system" limitation is obvious over Bowman in view of Rose. I address this argument in the obviousness section of my report.

the combined information for relevance to at least one of the query and the first user" as recited in claims 1 and 26 of the '664 patent, respectively.

105. Because Culliss does not disclose all of the limitations of claims 1 and 26 of the '664 patent, Culliss cannot disclose all of the limitations recited by claims 5, 6, 21, 22, 28 and 38 of the 664 patent.

106. First, Culliss does not disclose "filtering the informons on the basis of applicable content profile data for relevance to the query"; and "searching for information relevant to a query associated with a first user." In paragraph 63 of his report, Dr. Ungar states that in Culliss, the "Internet articles are associated with key terms that they contain" citing column 3, lines 60-64. Dr. Ungar goes on to state in paragraph 64 of his report that Culliss discloses that the "articles are given a 'key term score' for each of the key terms that they contain." Culliss 3:65-66. These passages referenced by Dr. Ungar, however, refer solely to building the "initial index setting." Culliss 3:65-67. For all intents and purposes, Culliss' rankings are based only on popularity information.<sup>5</sup>

107. Second, because Culliss does not disclose a content-based information component, it does not disclose "combining pertaining feedback data . . . with the content profile

<sup>&</sup>lt;sup>5</sup> Culliss builds an index, consisting of a table (Culliss at 4:1-9) whose rows are items and whose columns are terms (i.e., key words). Then when a user clicks on a displayed item shown in response to a query, Culliss updates the entries in that table, for instance by adding +1 to each cell corresponding the combination of a clicked item and query term (Culliss at 4:41-49). Culliss also discloses a more elaborate updating mechanism (Culliss at 5:45-6:14) where he records both the hits and displayed articles not clicked on for each term of each query. All updating mechanisms are purely based on popularity of items by multiple users who issued queries containing the terms in the table. Culliss initializes the table prior to initiating the updates based on popularity. The update step is popularity based. Over time, the popularity counts totally dominate the initialization (e.g., if an item was clicked 1000 times when a given terms was in the query, the entry in the table would be 1000 + 1). In essence, the effect of the initialization disappears over time -- it would be 1/10th or 1 percent in the above example -- and diminishing further over time. Hence as the Culliss method is used it becomes for all intents and purposes a popularity-only method.

data"; "combining the information from the feedback system with the information from the scanning system"; or "combining the information found to be relevant to the query by other users with the searched information."

108. Third, Culliss does not disclose "filtering each informon for relevance to the query" or "filtering the combined information for relevance to at least one of the query and the first user." In paragraph 131 of his report, Dr. Ungar states that "Culliss ranks search results for relevance to a query by calculating their aggregate key term scores for the terms in that query (*id.* at 5:2-10), and each key term score is based on a combination of feedback data and content data Culliss' disclosure of ranking, however, does not disclose filtering." Ranking is different than filtering, which does not use a ranked list, but rather is an item-by-item process that considers each item for exclusion based on its own attributes. Dr. Ungar's example set forth in paragraphs 132-134 of his report does not cure or clarify the deficiencies of paragraph 131. Moreover, the alternative described at column 13, lines 35-49 does not provide sufficient technical details to explain how to combine the two systems and does not disclose filtering.

109. Dr. Ungar in paragraph 140 states that "ranking a set of search results is sufficient to meet the 'filter' limitation even if no candidate search results are excluded." For the reasons stated in the prior paragraph, I disagree. Filtering is an item-by-item process that considers each item for exclusion.

110. With respect to claims 14 and 15 of the '420 Patent, although Dr. Ungar states that Culliss anticipates claims 14 and 15 of the '420 patent, I disagree. For the reasons already noted in connection with claim 10, from which claims 14 and 15 depend, claims 14 and 15 are not anticipated by Culliss.

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