read as teaching this element of the claims. Accordingly, claims 1 and 23 are not anticipated by *Culliss*.

Further, even if somehow the computation of the cumulative score is read to be estimation, the *Culliss* system operates according to activities of prior users. Articles retrieved for the first user are so retrieved on the basis of a conventional searching approach, *Culliss* at 5:59-60 ("initially retrieve articles for presentation to the first user using a conventional search engine"); thereafter, articles retrieved for future users depend on the results of this previous user's search activity and any similarities of personal data between the prior and future users. *Id*. at Abstract. In other words, the mechanism employed by *Culliss* is not specific to the user. It is entirely dependent on prior users and their search activities. This is a further reason why *Culliss* cannot anticipate claims 1 and 23.

Finally, *Culliss* does not teach *estimat[ing] a probability that the retrieved/collected document is of interest to the user*, as recited in claims 1 and 23. *Culliss* describes using personal data to refine search results presented to a user in response to a received query. See e.g., *Culliss*, Fig. 1 and 3:12-13. *Culliss* also describes tracking that personal data to recall different lists of articles in response to new queries from new users, *id.* at 5:35-37, and storing all elements of personal data, individually or in key term groupings, within the index separately, with components of the query or otherwise. *Id*. at 5:37-48. The grouped relationships are used as a basis to retrieve articles, and relevancy scores of those retrieved articles are to determine their respective rankings. *Id*. In other words, it is the computed score of a particular article that is used to determine its relevancy to a query.

Such groupings and relevancy scores do not establish an estimation of a probability. If anything, *Culliss* eschews any probability determinations in favor of direct numerical computations to group users together and determine the relevancy of a particular article to a particular query. At best, user data is used to interpret a query and determines how relevant a given document is to the query, not a particular user as required by claims 1 and 23. This is yet another reason why claims 1 and 23 are not anticipated by *Culliss*.

Claims 3, 6, 7, 21 and 22 depend from claim 1 and so are patentable over *Culliss* for at least all of the same reasons as claim 1. Further, with respect to claims 3 and 6, because *Culliss* does not teach *transparently monitoring*, it follows that *Culliss* cannot teach *[transparently] monitoring*, as recited in claims 3 and 6. Hence, claims 3 and 6 are not anticipated by *Culliss*.

With respect to claim 21, because *Culliss* does not teach estimating probabilities, it follows that *Culliss* cannot be said to teach *presenting . . . at least said portion of the retrieved documents based on the estimated probability . . .*, as recited in claim 21. Accordingly, claim 21 is not anticipated by *Culliss*.

Issue #10: Claim 5 is Not Obvious Under 35 USC 103 in View of Culliss even when Considered in Combination with Mladenic.

Above it was noted that *Culliss* and *Mladenic* are not in related fields of art and that because *Mladenic* specially chose not to build a system that was based on search (despite being well aware of such systems and even naming the PWW system in honor of one), one of ordinary skill in the art would not seek to combine the teachings of *Culliss* and *Mladenic* Hence, this rejection based on the combination of *Culliss* and *Mladenic* should be removed.

At a substantive level, above it was shown that *Culliss* and *Mladenic* share common deficiencies with respect to claim 1, hence combining their teachings still would not yield the invention recited in claim 1. By virtue of its dependency on claim 1 then, claim 5 remains patentable over *Culliss* and Mladenic.

Further, because *Mladenic* fails to teach *estimating parameters of a user-specific learning machine*, *Mladenic* cannot teach "wherein estimating parameters of a user-specific learning machine further comprises estimating parameters of a user-specific learning machine based at least in part on the documents not of interest to the user", as recited in claim 5. This is a further reason why claim 5 is patentable over the combination of *Culliss* and *Mladenic*.

Issue #11: Claim 14 is Not Obvious Under 35 USC 103 in View of Culliss even when Considered in Combination with Refuah.

Above it was shown that *Refuah* fails to teach *estimating parameters of a user-specific learning machine* and is not concerned with *estimating probabilities* that a retrieved document is of interest to a user or *using the estimated probabilities* to present at least a portion of any retrieved documents to the user. *Refuah* thus shares many of the same deficiencies as *Culliss* vis-à-vis the elements of claim 1. Consequently, claim 14 must be deemed patentable over these references by virtue of its dependency on claim 1.

Further, *Refuah* does not teach *whether at least one of said documents of interest contains a link to said retrieved document*, as recited in claim 14. At col. 17, ll. 44-47, *Refuah* discusses properties including the "number of links from the site." In the context being described, these would not be links *to* a retrieved document, but rather links *from* a retrieved document. Accordingly, claim 14 is patentable over *Culliss* and *Refuah*.

Issue #12: Claim 24 is Not Obvious Under 35 USC 103 in View of Culliss even when Considered in Combination with Montebello.

Claim 24 includes all of the features of claim 23 and is therefore patentable over *Culliss* for at least all of the same reasons set forth above with respect to claim 23. The Office Action tacitly admits that *Culliss* does not teach "wherein presenting said selected collected documents to said user comprises displaying said selected collected documents to said user on a personal web page associated with the user" but, relying on the Third Party Requestor's analysis, cites *Montebello* for this teaching. Whether this is true or not, *Montebello* fails to cure the deficiencies of *Culliss* with respect to the features that make claim 23 patentable over that reference. For example, and as demonstrated above, *Montebello* fails to teach, "applying the identified properties of the collected document to the user-specific learning machine to estimate a probability that the collected document is of interest to the user", as recited in claim 23. Hence claim 23, and by virtue thereof the subject claim 24, must be deemed patentable over the combination of *Culliss* and *Montebello*.

5. Response to Rejections Based on Primary Reference Montebello

Issue #13: Claims 1, 3, 6, 7, and 21-24 are Not Anticipated Under 35 USC 102(a) and 102(b) by Montebello.

As explained above, *Montebello* describes an administrator-conducted search using terms of interest to a user group. The retrieved documents are stored to a main index. Individual users then bookmark and highlight specific documents of interest from the main index and those marked documents are saved to individual personal indices. *Montebello* at p. 5, ll. 1-6. Sometime later, *Montebello's* PEA generates a profile from a user's personal index and predicts which of the other documents from the main index might be of interest to that user. The user then reviews these predictions and can add the corresponding documents to his/her personal index or simply delete them. The process repeats as documents are added to the user's personal index. *Id.* at p. 5, ll. 6-10.

Montebello thus fails to teach, applying identified properties of retrieved / collected documents to a user-specific learning machine to estimate a probability that the retrieved / collected document is of interest to the user, as recited in independent claims 1 and 23. Nowhere is it suggested that the *prediction* employed by *Montebello's* PEA is an estimation of a probability that the collected document is of interest to the user as recited in the claims. A prediction may be a forecast or prophecy, but this is not sufficient to conclude that it is an estimation of a probability. Indeed, by referring to it as a prediction, *Montebello* appears to suggest that the PEA has some knowledge about the subject that allows the system to arrive at the conclusion being advanced. Such activities do not bear the hallmarks of estimations of probabilities.

Further, because *Montebello* does not teach applying the identified properties of the retrieved / collected document to the user-specific learning machine to estimate a probability that the retrieved / collected document is of interest to the user, as recited in claims 1 and 23, it necessarily follows then that the reference cannot teach or suggest, using the *estimated probabilities* to present / select at least a portion of the retrieved / collected documents either. If there are no probabilities estimated, there can be no estimated probabilities. Hence claims 1 and 23 are not anticipated by *Montebello*.

Claims 3, 6, 7, 21 and 22 depend from claim 1 and are therefore patentable over *Montebello* for at least the same reasons as claim 1. Additionally, with respect to claim 21, because *Montebello* does not teach using the estimated probabilities, it follows that *Montebello* cannot teach, *presenting to the user at least said portion of the retrieved documents based on the estimated probability*, as recited in claim 21. This is a further reason why claim 21 is not anticipated by *Montebello*. Claim 24 depends from claim 23 and is patentable over *Montebello* for at least the same reasons as claim 23.

Issue #14: Claim 5 is Not Obvious Under 35 USC 103 in View of Montebello even when Considered in Combination with Mladenic.

Above it was indicated that neither *Montebello* nor *Mladenic* teach applying identified properties of a retrieved document to a user-specific learning machine to estimate a probability that the retrieved document is of interest to the user, as recited in claim 1, and so cannot be said to collectively teach or suggest same. It necessarily follows then that the combination of these references cannot teach or suggest, "using the *estimated probabilities* for the respective plurality of retrieved documents to present at least a portion of the retrieved documents". For if there are no probabilities estimated, there can be no estimated probabilities.

Furthermore, because *Mladenic* fails to teach *estimating parameters of a user-specific learning machine*, as discussed above, *Mladenic* cannot teach "wherein estimating parameters of a user-specific learning machine further comprises estimating parameters of a user-specific learning machine based at least in part on the documents not of interest to the user", as recited in claim 5.

Hence claim 5, and by virtue of its dependency on claim 1 and further for the reasons given above, must be deemed patentable over the combination of *Montebello* and *Mladenic*.

Issue #15: Claim 14 is Not Obvious Under 35 USC 103 in View of Montebello even when Considered in Combination with Refuah.

As explained above, *Refuah*, like *Montebello*, fails to teach estimating probabilities that a retrieved or collected document is of interest to a user and using the estimated probabilities to present at least a portion of any retrieved documents to a user, as recited in claim 1. Consequently, the combination of these references cannot be relied upon to teach these features of claim 1. By virtue of its dependency con claim 1, claim 14 must therefore be patentable over *Montebello* and *Refuah*.

Further, *Refuah* does not teach *whether at least one of said documents of interest contains a link to said retrieved document*, as recited in claim 14. At col. 17, ll. 44-47, *Refuah* discusses properties including the "number of links from the site." In the context being described, these would not be links *to* a retrieved document, but rather links *from* a retrieved document. This is a further reason why claim 14 is patentable over *Montebello* and *Refuah*.

6. Response to Rejections Based on Primary Reference Barrett

Issue #16: Claims 23 and 24 are Not Anticipated Under 35 USC 102(a) and 102(b) by Barrett.

Barrett describes a Web Browser Intelligence (WBI) system that is intended to reside between a user's web browser and the web. The WBI is intended to personalize the web for a user by acting as a proxy, monitoring, editing, and generating documents. *Barrett* at pp. 3-4. The WBI includes four types of agents, monitor agents to track user actions and provide information for other agents, editor agents to intercept a communication stream and deliver a modified version thereof, generator agents that act like an HTTP proxy to convert a request into a response, and autonomous agents triggered independently of the communication stream. *Id*. None of these agents, however, "estimate parameters" of a "user-specific learning machine" or apply properties of documents to such a learning machine to "estimate a probability", as recited in claim 23.

Barrett readily acknowledges that the WBI system is rather simplistic in its operation. That is, at the time the *Barrett* reference was written, only simple forms of the above-described agents existed. Among those agents were one to "derive clusters and keywords from the [user's] personal history and then [find] documents containing those keywords." *Id.* at p. 11. Left for the future was the task of creating more sophisticated agents. *Id.* No guidance (other than a basic recognition of the problem space involving "inferring what a user is thinking" and then "determining what the computer should do [next]") as to how to implement those more sophisticated agents was provided.

The mere recognition of a problem that requires a solution is an insufficient basis on which to base an anticipation rejection. A reference must teach the **identical invention in as complete detail as is contained in the claim** before such a rejection is appropriate *Richardson, supra,* 868 F.2d at 1236, 9 USPQ2d at 1920. No such teaching is present here. Parsing documents for keywords is not estimating parameters of a user-specific learning machine.[15] Running searches to find additional documents containing those keywords is not "estimating a probability that the collected document is of interest to the user".[16] While these may be hallmarks of the kind of sophisticated agent that Barrett recognized would one day be needed, merely identifying such a need does not rise to the level of an anticipatory teaching.

It necessarily follows that because *Barrett* does not teach estimating parameters of a user-specific learning machine and estimating a probability that the collected document is of interest to the user, *Barrett* cannot teach "using the estimated probabilities" to select documents. Because there are no probabilities estimated, there are not estimated probabilities to use (in this or any other fashion).

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[15] If anything, the keywords are features of the subject documents, not any user-specific learning machine.

[16] Looking for keyword matches of the kind described by *Barrett* does not rise to the level of estimating probabilities. *Barrett* is quite clear on this point – the presence of keywords is *assumed* to identify an interesting document. No estimation of probabilities is involved. The decision is binary in nature: If the keywords are present, the document is interesting otherwise it is not. *Barrett* at p. 11.

For at least these reasons, *Barrett* does not anticipate claim 23. Claim 24 depends from claim 23 and is therefore patentable over *Barrett* for at least the same reasons as claim 23.

Issue #17: Claims 1, 3, 5, 6, 21 and 22 are Not Obvious Under 35 USC 103 in View of Barrett even when Considered in Combination with Mladenic.

Like claim 23, claim 1 recites estimating parameters of a user-specific learning machine, applying identified properties of a document to the user-specific learning machine to estimate a probability that the retrieved document is of interest to the user, and using the estimated probabilities to present at least a portion of the retrieved documents to the user. Because, as discussed above, *Barrett* fails to teach any of these features, claim 1 is patentable over *Barrett*.

Earlier it was shown that *Mladenic* also fails to teach estimating parameters of a user-specific learning machine, estimating a probability that the retrieved document is of interest to the user, and using the estimated probabilities to present at least a portion of the retrieved documents to the user, as recited in claim 1. Consequently, with both *Barrett* and *Mladenic* having the same failings, the combination of these references cannot be said to teach or suggest these elements of the claim. Therefore, irrespective of any teachings regarding searches and documents retrieved in response thereto which may or may not exist in *Mladenic*,[17] claim 1 must be deemed patentable over these references.

Furthermore, the Office Action is simply wrong when it adopts the Third Party Requestor's view of *Mladenic's* teachings regarding search. It is important to recognize the Requestor cites *Mladenic's* comments regarding the WebWatcher, and NOT the Personal WebWatcher, when it comes to search requests. In fact, as we have seen above, *Mladenic's* Personal WebWatcher eschews such an approach and no such search query or any documents returned in response to it are found in that system. Indeed, one might conclude that Mladenic actually teaches away, or at a minimum counsels against, the

[17] This point is not conceded, as demonstrated below.

incorporation of search in a system like PWW.[18] Consequently, one cannot convincingly argue that *Mladenic* teaches "receiving a search query from the user", as recited in claim 1. If anything, just the opposite is true.

Because *Mladenic* does not teach receiving a search query from the user, it follows that *Mladenic* cannot teach, "retrieving a plurality of documents based on the search query", as further recited in claim 1. Instead, *Mladenic* relies on users to specify particular documents of interest, and the Personal WebWatcher "watches over the user's shoulder" to record the addresses of those documents. *Id.* at p. 2, ll. 18-19, p. 3, ll. 3-7.

All of these are additional reasons why claim 1 is patentable over the combination of *Barrett* and *Mladenic*. Claims 3, 5, 6, 21 and 22 depend from claim 1 and are therefore patentable over the combination of *Barrett* and *Mladenic* for at least the same reasons as claim 1.

With respect to claim 5, it follows that because *Mladenic* fails to teach *estimating parameters of a user-specific learning machine*, as discussed above, *Mladenic* cannot teach "wherein estimating parameters of a user-specific learning machine further comprises estimating parameters of a user-specific learning machine based at least in part on the documents not of interest to the user", as recited in claim 5. This is a further reason why claim 5 is patentable over *Barrett* and *Mladenic*.

With respect to claim 21, because *Mladenic* does not teach "receiving a search query", "retrieved document[s]" or using "estimated probabilities for the respective plurality of retrieved documents to present at least a portion of the retrieved documents to the user", as in claim 1, it follows that *Mladenic* cannot teach "presenting to the user at least said portion of the retrieved documents based on the estimated probability that the retrieved document is of interest to the user and the relevance of the retrieved document to the search query", as recited in claim 21. As explained above, *Mladenic* does not teach receiving a search query from the user. It therefore follows that none of *Mladenic's* computations can be made based on any "relevance of the retrieved document to the search query". Indeed, and as discussed above, there are no "retrieved documents" in the

[18] *Mladenic* is quite clear that such a mechanism is not employed by the Personal Web Watcher ("it doesn't ask the user for any keywords"). *Mladenic* at p. 3, l. 5.

sense of claim 1 (or claim 21) in *Mladenic's* Personal WebWatcher. Consequently, this is a further reason why claim 21 is patentable over *Barrett* and *Mladenic*.

Issue #18: Claims 7 and 14 are Not Obvious Under 35 USC 103 in View of Barrett even when Considered in Combination with Mladenic and Refuah.

Claims 7 and 14 depend from claim 1 and are therefore patentable over the combination of *Barrett* and *Mladenic* for at least all of the reasons set forth above with respect to claim 1. In addition, the Office Action tacitly admits that neither *Barrett* nor *Mladenic* teach "wherein said plurality of retrieved documents correspond to a respective plurality of products", but relies on *Refuah* for it. Whether this is true or not, because *Refuah* does not cure the deficiencies of *Barrett* and *Mladenic*, claim 7 remains patentable over the combination of these references.

Like the other references, *Refuah* fails to teach estimating parameters of a user-specific learning machine, applying identified properties of a document to the user-specific learning machine to estimate a probability that the retrieved document is of interest to the user, and using the estimated probabilities to present at least a portion of the retrieved documents to the user. As demonstrated above, *Refuah's* personas and moods are not necessarily user-specific, and no estimation takes place. Furthermore, *Refuah* does not teach estimating probabilities that a retrieved document is of interest to a user or using the estimated probabilities to present at least a portion of any retrieved documents to the user. Nowhere does *Refuah* discuss the concept of such probabilities. Instead, the personalities are used as a filter to manage information for a client. *Refuah* at 13:57-61. When describing this filtering approach, *Refuah* fails to mention estimating probabilities or using any estimated probabilities to make decisions.

Thus, *Refuah* shares all the same deficiencies as *Barrett* and *Mladenic* vis-à-vis the elements of the claim. Consequently, the combination of *Barrett*, *Mladenic* and *Refuah* would still not teach the presently claimed invention and so claim 7 must be deemed patentable over these references.

The same conclusion applies with respect to claim 14. Like claim 7, claim 14 depends from claim 1 and so includes all of the same features as claim 1. As demonstrated above, the combination of *Barrett*, *Mladenic* and *Refuah* fails to teach or suggest all of these features and so claim 14 must be deemed patentable over the combination of these references.

Further, *Refuah* does not teach *whether at least one of said documents of interest contains a link to said retrieved document*, as recited in claim 14. At col. 17, ll. 44-47, *Refuah* discusses properties including the "number of links from the site." In the context being described, these would not be links *to* a retrieved document, but rather links *from* a retrieved document. This is a further reason why claim 14 is patentable over *Barrett*, *Mladenic* and *Refuah*.

7. Response to Rejections Based on Primary Reference Asnicar

Issue #19: Claims 23 and 24 are Not Anticipated Under 35 USC 102(a) and 102(b) by Asnicar.

Asnicar does not anticipate claims 23 and 24 under any statutory provision. As indicated above, to anticipate a claim, "The **identical invention must be shown in as complete detail as is contained in the . . . claim**." *Richardson, supra,* 868 F.2d at 1236, 9 USPQ2d at 1920. In this case, claim 23 recites several features that are not disclosed by *Asnicar*.

The ifWeb system of *Asnicar* offers "support to the user for executing specific tasks, without imposing specific solutions and/or decisions." *Asnicar,* p. 2. The system has two modes of operation: a navigation support mode and a document search mode, both of which are initiated when a user selects an initial document. *Id.* When operating in navigation support mode, the ifWeb system collects, analyzes, and classifies World Wide Web (WWW) documents, then graphically shows the user a structure of hypertextual links present in the documents that have been accessed. *Id.* When operating in document search mode, the ifWeb system performs an extended navigation of the WWW in order to retrieve and classify documents and then presents a "set of documents which have been classified as the most relevant ones, order downward from the most interesting." *Id.*

Importantly, both the classification and navigation strategies are based on a model that, "is constituted by a set of attribute-value pairs corresponding to the structured part of the documents (host, size, number of images,…), and a weighted semantic network whose nodes correspond to terms (concepts) found in documents and where arcs link together terms which co-occurred in some document." *Id.* Although this model is termed a "user model", its description makes clear that it is really a *document model*. That is, the model's constituents are attributes of the document, and are not user-specific. While *Asnicar* does make provisions for updating this document model through "implicit relevance feedback provided by the user" it remains the case that the model is a document model. See *Id.* at p. 4 (explaining that a Document Processor Agent is used to extract information concerning the structure and content of a document and to build a document internal representation, which subsequently is used as the basis for any classification decision – it is apparent that such a classification must compare similar document structure representations, hence, the model is a document model).

Contrary to the document model described by *Asnicar*, claim 23 recites, "estimating parameters of a *user-specific learning machine*". The document model discussed by *Asnicar* is specific to a document, not to a user. Asnicar reveals as much by indicating that it is constituted by the document properties described above. This is a significant distinction from the claimed subject matter, hence, Asnicar does not anticipate claim 23.

It necessarily follows that because *Asnicar* does not discuss a user-specific learning machine, there can be no discussion of "estimating parameters" for such a user-specific learning machine. Likewise, there can be no application of any identified properties of collected documents to the *user-specific learning machine* to estimate a probability that a collected document is of interest to the user, as recited in claim 23. Finally, if there is no such application to estimate a probability, there can be no use of such an estimated probability to select at least a portion of any collected documents for presentation (or other action), as recited in claim 23. These are further reasons why *Asnicar* does not anticipate claim 23.

Even if the document model of *Asnicar* is somehow equated to the user-specific learning machine of claim 23, *Asnicar* still fails to describe any estimation of parameters for that document model. Instead, *Asnicar* teaches the use of attribute-value pairs corresponding to the structured parts of documents, and a weighted semantic network whose nodes correspond to terms found in documents and where arcs link together co-occurrence of those terms. Such attributes are not estimated parameters they are extracted values. Consequently, *Asnicar* fails to teach this element of claim 23 and Asnicar does therefore not anticipate claim 23.

Claim 23 further recites, "transparently monitoring user interactions". It appears, however, that *Asnicar* demands explicit user feedback (provided through a separate iWeb browser window, see Fig. 3, reproduced below) in order to provide the iWeb services.

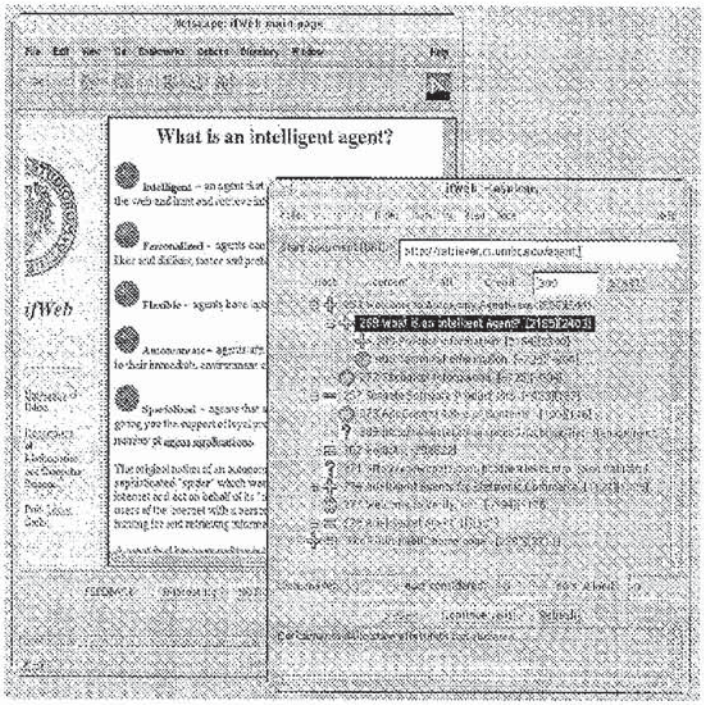

Fig. 3 - User interface of ifWeb (full-size).

In addition to this feedback, users are expected to modify system parameters and orders of analysis, request access to links, exclude documents from navigation and ask for display. According to the results presented by *Asnicar*, without this feedback, the iWeb system performs rather poorly (see results reported in *Asnicar's* Fig. 4, p. 6). Indeed, the feedback was needed even to seed the iWeb system before any results were even

available. *Asnicar* at p. 5 ("iWeb was started with a user model obtained through (positive and negative) feedback on a limited set of documents (4-6)."). Consequently, *Asnicar* cannot be said to teach transparent monitoring of user interactions and this is a further reason why *Asnicar* fails to anticipate claim 23.

Claim 24 depends from claim 23 and is not anticipated by Asnicar for at least all of the same reasons as claim 23. Further, claim 24 recites, "displaying . . . collected documents . . . on a personal web page associated with the user." In Fig. 3, Asnicar shows the use of a separate web page to display recommendations, however, it is not clear that this is a *personal web page associated with the user*, as required by the claim. Recall that *Asnicar* is concerned with operating on a specific starting document chosen by a user. Recommendations, to the extent they are provided, depend on characteristics of this initial document. *Asnicar* at p. 2. Consequently, the web page reporting the recommendations is best considered as being associated with that initial document and should not be considered a *personal web page associated with the user*. This is a further reason why *Asnicar* fails to anticipate claim 24.

Issue #20: Claims 1, 5, 6, 14, 21 and 22 are Not Obvious Under 35 USC 103 in View of Asnicar even when Considered in Combination with Mladenic.

With respect to claim 1, it was previously noted that *Asnicar* fails to teach or suggest estimating parameters of a learning machine and transparently monitoring user interactions. Of course, because *Asnicar* does not discuss estimating parameters of a user-specific learning machine, there can be no discussion of applying any identified properties of retrieved documents to the *user-specific learning machine* to estimate a probability that a retrieved document is of interest to the user, as recited in claim 1. Further, if there is no such application to estimate a probability, there can be no use of such an estimated probability to select at least a portion of any retrieved documents, as recited in claim 1.

As demonstrated above, *Mladenic* suffers from the same failings as *Asnicar*. That is, neither reference teaches or suggests the elements of claim 1 just described.

Consequently, the combination of these references cannot teach or suggest the features of claim 1 and claim 1 must be deemed patentable over these references.

It is also questionable whether one of ordinary skill in the art would make the suggested combination at all. *Asnicar* is concerned with searches, while *Mladenic* specifically is not.[19] While references relied upon in an obviousness rejection need not necessarily be in the same field of endeavor, before such a rejection can be made it is imperative that the examiner demonstrate the existence of a design incentive or other market forces that would prompt a person of ordinary skill in the relevant art to adopt solutions from outside of his or her field.[20] Here, no such showing has been made. Instead, an unsupported assertion regarding the propriety of the combination has been advanced, but such an assertion lacks any foundation. If anything, *Mladenic* demonstrates just how unlikely it is that one of ordinary skill in the art considering the teachings of *Asnicar*, which is directed to search, would adopt teachings of *Mladenic*. Its author was specifically aware of such applications (i.e., the WebWatcher system), and yet specifically chose to avoid search when creating the Personal WebWatcher. If anything, this would demonstrate the impropriety of combining teachings from the search-based art with *Mladenic*. Hence, the rejections based on the combination of *Asnicar* and *Mladenic* should be removed.

Claims 5, 6, 14, 21, and 22 depend from claim 1 and are patentable over *Asnicar* for all of the same reasons as claim 1, as discussed above. With further respect to claim 5, above it was shown that Asnicar is concerned with document-specific models, not user-specific learning machines. Hence, *Asnicar* cannot teach the further elements of claim 5 directed to the user-specific learning machines and this is a further reason why claim 5 is patentable over *Asnicar* and *Mladenic*. With respect to claim 6, the monitoring recited is transparent monitoring and as demonstrated above, neither of the cited references teaches such transparent monitoring. This is a further reason why claim 6 is patentable over these references. With respect to claim 21, above it was shown that *Mladenic* does not teach "receiving a search query", "retrieved document[s]" or using "estimated probabilities for

[19] "[I]t doesn't ask the user for any keywords . . . ." *Mladenic* at p. 3, l. 5.

[20] See, e.g., *KSR*, supra, 550 U.S. at 417, 82 USPQ2d at 1396.

the respective plurality of retrieved documents to present at least a portion of the retrieved documents to the user", as in claim 1, and so it follows that *Mladenic* cannot teach "presenting to the user at least said portion of the retrieved documents based on the estimated probability that the retrieved document is of interest to the user and the relevance of the retrieved document to the search query", as recited in claim 21. This is a further reason why claim 21 is patentable over the *Asnicar – Mladenic* combination.

Issue #21: Claims 3 and 7 are Not Obvious Under 35 USC 103 in View of Asnicar even when Considered in Combination with Mladenic and Culliss.

Claims 3 and 7 depend from claim 1 and are patentable over *Asnicar* and *Mladenic* for all of the reasons set forth above with respect to claim 1.

Above it was shown that *Culliss* and *Mladenic* are not in related fields of art and so the rejections based on any combination of *Mladenic* and *Culliss* should be removed. Even if one were to combine the substantive teachings of *Culliss* with *Asnicar* and *Mladenic*, however, one would not arrive at the invention recited in claim 3. As discussed above, in *Culliss* system information services that are provided to a user are dependent upon and informed by activities of prior users. Thus, *Culliss* does not offer or provide transparent monitoring of a user's interactions, as recited in claim 1. Consequently, any combination of *Asnicar*, *Mladenic* and *Culliss* would still lack these teachings. It follows that if the combination of *Asnicar*, *Mladenic* and *Culliss* fails to include "transparently monitoring" as recited in claim 1, then this combination of references cannot teach [transparently] monitoring user interactions with data during multiple different modes of user interaction with network data, as recited in claim 3. Consequently, claim 3 is patentable over the combination of *Asnicar*, *Mladenic* and *Culliss*.

A similar rationale applies to claim 7. Accordingly, claims 3 and 7 are patentable over the combination of *Asnicar, Mladenic,* and *Culliss*.

8. Response to Rejections Based on Primary Reference Stefani

Issue #22: Claims 23 and 24 are Not Anticipated Under 35 USC 102(a) and 102(b) by Stefani.

Stefani describes SiteIF, a system that takes into account a user's past browsing behavior to try and anticipate what documents in a web site could be interesting for the user. *Stefani,* Abstract, p. 1. To do so, SiteIF checks, "for every word in [a] representation of [a] document, whether the context in which it occurs has already been found in previously visited documents and already stored in [a] semantic net." *Id.* at p. 4. The semantic net is produced by an agent (the Web User Profiling Agent) and is termed a "user model" by *Stefani. Id.*

Stefani does not anticipate claims 23 and 24 under any statutory provision. As indicated above, to anticipate a claim, "The **identical invention must be shown in as complete detail as is contained in the . . . claim**." *Richardson, supra,* 868 F.2d at 1236, 9 USPQ2d at 1920. In this case, claim 23 recites several features that are not disclosed by *Stefani*, including, *estimat[ing] a probability that [a] collected document is of interest to the user.*

Stefani reveals very little about how a determination is made that a document is or is not worth a user's attention. See *id.* at p. 4. After criticizing approaches based on "standard keyword matches", *Stefani* states only that SiteIF, "for every word in [a] representation of [a] document, [a] check is made as to] whether the context in which it occurs has already been found in previously visited documents and already stored in the semantic net." *Id.* The reader is not advised as to what criteria need to be satisfied based on this check, nor anything else for that matter. Certainly, there is no suggestion of any estimate of probability being made. Consequently, *Stefani* cannot anticipate claim 23.

Further, Stefani does not teach *estimating parameters of a user-specific learning machine*. Instead, Stefani relies on direct observations of the user's past browsing history to construct he aforementioned semantic net, in which nodes are words (presumably from the subject web pages visited) and arcs between nodes are the co-occurrence relations of two words. *Id.* Such a model does not appear to be based on estimated parameters, but rather directly extracted attributes of prior web pages. Stefani does indicate that the