IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Inventors: Naimark, et al.

Patent No.: 6,757,682

Filed: September 7, 2000

For: ALERTING USERS TO ITEMS OF CURRENT INTEREST

REQUEST FOR REEXAMINATION UNDER 35 U.S.C. §§ 311 *ET SEQ.*, AND 37 C.F.R. §§ 1.913 AND 1.915

Mail Stop *Inter Partes* Reexamination
ATTN: Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST FOR *INTER PARTES* REEXAMINATION OF U.S. PATENT 6,757,682

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being transmitted today via the Office electronic filing system (EFS-Web) in accordance with 37 CFR §1.6 (a)(4).

Date: March 16, 2011

Signature: /Lance A. Smith/
Printed Name: Lance A. Smith

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LIST OF EXHIBITS

The exhibits to the present Request are arranged in four groups: prior art ("PA"), relevant patent prosecution file history, patents, and claim dependency relationships ("PAT"), claim charts ("CC"), and other ("OTH").

A. PRIOR ART (PA)

PA-SB08A/B USPTO Form SB/08A/B

PA-A U.S. Patent No. 7,082,407 to Bezos, filed August 19, 1999, issued July 25, 2006 ("Bezos")

PA-A1 U.S. Provisional Application No. 60/128,557 to Bezos filed April 9, 1999 ("Bezos Provisional")

PA-B U.S. Patent No. 6,466,918 to Spiegel et al., filed November 18, 1999, issued October 15, 2002 ("Spiegel")

PA-C U.S. Patent No. 6,195,657 to Rucker, filed September 25, 1997, issued February 27, 2001 ("Rucker")

PA-D U.S. Patent No. 6,049,777 to Sheena filed March 14, 1997, issued April 11, 2000 ("Sheena")

PA-E U.S. Patent No. 5,724,567 to Rose, filed April 25, 1995, issued March 3, 1998 ("Rose")

PA-F U.S. Patent No. 6,681,369 to Meunier, filed May 5, 1999, issued January 20, 2004 ("Meunier")

B. RELEVANT PATENT MATERIALS (PAT)

PAT-A U.S. Patent No. 6,757,682 ("the '682 patent")

C. CLAIM CHARTS (CC)

CC- A Claim Chart comparing claims 1-13, 16-17, and 20 of the '682 patent with the disclosure of Bezos

CC- B Claim Chart comparing claims 1-13, 16-17, and 20 of the '682 patent with the disclosure of Spiegel (which incorporates by reference the disclosures of Bezos)

CC- C Claim Chart comparing claims 1-13, 16-17, and 20 of the '682 patent with the disclosure of Bezos in view of Meunier

CC- D Claim Chart comparing claims 1-13, 16-17, and 20 of the '682 patent with the disclosure of Spiegel (which incorporates by reference the disclosures of Bezos) in view of Meunier

CC- E Claim Chart comparing claims 1-13, 16-17, and 20 of the '682 patent with the disclosure of Rucker

CC-F Claim Chart comparing claims 1-5, 8-10, 16-17, and 20 of the '682 patent with the disclosure of Sheena

CC-G Claim Chart comparing claims 6-7 and 11-13 of the '682 patent with the disclosure of Sheena in view of Bezos

CC-H Claim Chart comparing claims 1-5, 8, 17, and 20 of the '682 patent with the disclosure of Rose

CC-I Claim Chart comparing claims 6-7, 9-13, and 16 of the '682 patent with the disclosure of Rose in view of Bezos

CC-J Claim Chart comparing claims 9-10 and 16 of the '682 patent with the disclosure of Rose in view of Sheena

D. OTHER DOCUMENTS (OTH)

OTH-A Complaint filed August 27, 2010 in the case of *Interval Licensing LLC v. AOL, Inc. et al.*, Case No. 2:10cv01385 (W.D. Wash.)

OTH-B Infringement Contentions from *Interval Licensing LLC v. AOL, Inc. et al.*, Case No. 2:10cv01385 (W.D. Wash.)

- OTH-B1 Apple – App Store
- OTH-B2 Apple – Genius Recommendations for Apps
- OTH-B3 Apple – iTunes Genius
- OTH-B4 Apple – iTunes Store
- OTH-B5 Apple – Ping
- OTH-B6 eBay – eBay Website
- OTH-B7 eBay – eBay Half.com Website
- OTH-B8 Facebook – News Feed
- OTH-B9 Facebook – People You May Know
- OTH-B10 Netflix – Netflix Website
- OTH-B11 Office Depot – Office Depot Website
- OTH-B12 Office Depot – TechDepot Website
- OTH-B13 Staples – Staples Website
- OTH-B14 Yahoo! – Delicious Website
- OTH-B15 Yahoo! – Flickr Website – "Interestingness"
- OTH-B16 Yahoo! – Yahoo! Answers
- OTH-B17 Yahoo! – Yahoo! Buzz
- OTH-B18 Yahoo! – Yahoo! Music Website

	OTH-B19	Yahoo! – Yahoo! Shopping Website
OTH-C	Prosecution History of the '682 patent	

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Inventors: Naimark, et al. Patent No.: 6,757,682 Filed: September 7, 2000 For: ALERTING USERS TO ITEMS OF CURRENT INTEREST	REQUEST FOR REEXAMINATION UNDER 35 U.S.C. §§ 311 *ET SEQ.*, AND 37 C.F.R. §§ 1.913, 1.915

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ATTN: Central Reexamination Unit
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

REQUEST FOR *INTER PARTES* REEXAMINATION OF U.S. PATENT 6,757,682

Dear Sir:

Pursuant to 37 C.F.R. § 1.915(b)(8), the Real Parties in Interest, Apple Inc., eBay Inc., Facebook, Inc., Netflix, Inc., Office Depot, Inc., Staples, Inc., and Yahoo! Inc. ("Requesters") respectfully request reexamination pursuant to 35 U.S.C. §§ 311 *et seq.* and 37 C.F.R. § 1.902 *et seq.*, of original claims 1-13, 16-17 and 20 of U.S. Patent No. 6,757,682 ("the '682 patent") filed September 7, 2000 and issued June 29, 2004 to Naimark et al. (Exhibit PAT-A).

Reexamination is requested in view of the substantial new questions of patentability ("SNQs") set forth in detail below and in the accompanying claim charts. The Requesters reserve all rights and defenses available including, without limitation, defenses as to invalidity and unenforceability. By simply filing this Request in compliance with applicable statutes, rules, and regulations, Requesters do not represent, agree or concur that the '682 patent is enforceable. As alleged by Patent Owner in the below defined Concurrent Litigation, and as required by 37 C.F.R. § 1.913, the '682 patent is still within its period of enforceability for reexamination purposes, to the extent that the '682 patent has not lapsed for failure to pay maintenance fees, has not been the subject of any Terminal Disclaimer, and has not yet been held unenforceable in a court of competent

jurisdiction. By asserting the SNQs herein, Requesters specifically assert that original claims 1-13, 16-17 and 20 of the '682 patent are in fact not patentable.

Each Requester is a named defendant in *Interval Licensing v. AOL Inc., et al.*, Case No. 2:10-cv-01385-MJP, currently pending in the United States District Court for the Western District of Washington. In the litigation, the plaintiff (a non-practicing patent-holding company) has accused each Requester of infringing the '682 patent. Each Requester has denied that it infringes the '682 patent and has asserted in the litigation that the patent is invalid.

The '682 patent is directed to a system and method for recommending items that are of current interest to users. Each independent claim of the '682 patent generally recites (1) receiving an indication from a source (i.e., other than the user to whom recommendations will be provided) that an item is of current interest; (2) determining "an intensity value to be associated with the indication and an intensity weight value, and adjusting the intensity value based on a characteristic for the item provided by the source;" and (3) notifying the user that the item is of current interest. Although the claims are not a model of clarity (and may suffer from § 112 problems which are not the subject of this Request), the idea of providing recommendations about items based on the input of other users was known in the art well before the application for the '682 patent was filed.

The substantial new questions of patentability set forth in this Request are precipitated by five prior art references that were neither cited nor considered during the original prosecution of the '682 Patent, as well as one reference that was previously considered for which a material new argument and interpretation is presented in this Request. Claims 1-13, 16-17 and 20 of the '682 patent are not patentable in view of this prior art under 35 U.S.C. § 102 and/or 35 U.S.C. § 103. Accordingly, the U.S. Patent and Trademark Office (the "Office" or "PTO") should order a reexamination and find claims 1-13, 16-17 and 20 of the '682 patent unpatentable and cancel those claims, rendering them null, void, and otherwise unenforceable.

I. REQUIREMENTS FOR *INTER PARTES* REEXAMINATION UNDER 37 C.F.R. § 1.915

Requesters satisfy each requirement for *Inter Partes* reexamination of the '682 patent pursuant to 37 C.F.R. § 1.915.

Requesters hereby certify that none is prohibited under the provisions of 35 U.S.C. § 317 or 37 C.F.R. § 1.907 from filing this Request for Inter Partes Reexamination. Requesters may request inter partes reexamination because neither they nor those in privity with them have previously requested inter partes reexamination of the '682 Patent. 37 C.F.R. § 1.907; 35 U.S.C. § 317(b); MPEP § 2612.

A. 37 C.F.R. § 1.915(b)(3): STATEMENT POINTING OUT EACH SUBSTANTIAL NEW QUESTION OF PATENTABILITY

This Request is based on the cited prior art documents set forth herein and on the accompanying Form PTO-SB/08A/B. *See* Exhibit PA-SB/08A/B. All of the cited prior art patents and publications constitute effective prior art as to the claims of the '682 patent under 35 U.S.C. § 102 and/or 35 U.S.C. § 103.

A statement pointing out each SNQ based on the cited patents and printed publications, and a detailed explanation of the pertinency and manner of applying the patents and printed publications to Claims 1-13, 16-17 and 20 of the '682 patent, is presented below and in attached claim charts in accordance with 37 C.F.R. § 1.915 (b)(3).

All but one of these references were never cited or considered during the original prosecution of the '682 patent, and the one reference that was cited during the original prosecution is being presented herein with a material new argument and interpretation, and therefore, is presented in a new light. Each raises a substantial new question of patentability ("SNQ") for claims 1-13, 16-17 and 20 of the '682 patent. A more detailed identification and explanation of each SNQ is provided in Section VI, beginning on page 22. The SNQs presented by this Request for *Inter Partes* Reexamination are listed below:

No.	Substantial New Questions for the '682 Patent
1	Bezos raises an SNQ as to claims 1-13, 16-17, and 20 under 35 U.S.C. § 102
2	Spiegel raises an SNQ as to claims 1-13, 16-17, and 20 under 35 U.S.C. § 102
3	Bezos in view of Spiegel raises an SNQ as to claims 1-13, 16-17, and 20 under 35 U.S.C. § 103
4	Bezos in view of Meunier raises an SNQ as to claims 1-13, 16-17, and 20 under 35 U.S.C. § 103

No.	Substantial New Questions for the '682 Patent
5	Spiegel in view of Meunier raises an SNQ as to claims 1-13, 16-17, and 20 under 35 U.S.C. § 103
6	Rucker raises an SNQ as to claims 1-13, 16-17, and 20 under 35 U.S.C. § 102
7	Sheena raises an SNQ as to claims 1-5, 8-10, 16-17, and 20 under 35 U.S.C. § 102
8	Sheena in view of Bezos raises an SNQ as to claims 6-7 and 11-13 under 35 U.S.C. § 103
9	Rose raises an SNQ as to claims 1-5, 8, 17, and 20 under 35 U.S.C. § 102
10	Rose in view of Bezos raises an SNQ as to claims 6-7, 9-13, and 16 under 35 U.S.C. § 103
11	Rose in view of Sheena raises an SNQ as to claims 9-10 and 16 under 35 U.S.C. § 103

Based on these SNQs and the prior art cited in this Request, the Requesters propose that the PTO enter the following rejections with respect to claims 1-13, 16-17 and 20:

No.	Proposed Rejections for the '682 Patent
1	Claims 1-13, 16-17, and 20 are ***anticipated*** by Bezos
2	Claims 1-13, 16-17, and 20 are ***anticipated*** by Spiegel
3	Claims 1-13, 16-17, and 20 are ***obvious*** over Bezos in view of Spiegel
4	Claims 1-13, 16-17, and 20 are ***obvious*** over Bezos in view of Meunier
5	Claims 1-13, 16-17, and 20 are ***obvious*** over Spiegel in view of Meunier
6	Claims 1-13, 16-17, and 20 are ***anticipated*** by Rucker
7	Claims 1-5, 8-10, 16-17, and 20 are ***anticipated*** by Sheena
8	Claims 6-7 and 11-13 are ***obvious*** over Sheena in view of Bezos
9	Claims 1-5, 8, 17, and 20 are ***anticipated*** by Rose

No.	Proposed Rejections for the '682 Patent
10	Claims 6-7, 9-13, and 16 are ***obvious*** over Rose in view of Bezos
11	Claims 9-10 and 16 are ***obvious*** over Rose in view of Sheena

B. 37 C.F.R. § 1.915 (b)(4): COPY OF EVERY PATENT OR PRINTED PUBLICATION RELIED UPON TO PRESENT AN SNQ

Pursuant to 37 C.F.R. §1.915(b)(4), a copy of every patent or printed publication relied upon to present an SNQ is submitted herein at Exhibits PA-A through PA-F, citation of which may be found on the accompanying Form PTO-SB/08A as Exhibit PTO-SB/08A in accordance with 37 C.F.R. § 1.915(b)(2). Each of the cited prior art publications constitutes effective prior art as to the claims of the '682 patent under 35 U.S.C. § 102 and/or 35 U.S.C. § 103. Furthermore, each piece of prior art submitted was either not considered by the Office during the prosecution of the '682 patent or is being presented in a new light under MPEP § 2642 as set forth in the detailed explanation below and in the attached claim charts.

C. 37 C.F.R. § 1.915 (b)(5): COPY OF THE ENTIRE PATENT FOR WHICH REEXAMINATION IS REQUESTED

A full copy of the '682 patent is submitted herein as Exhibit PAT-A in accordance with 37 C.F.R. § 1.915(b)(5).

D. 37 C.F.R. § 1.915 (b)(6): CERTIFICATION THAT A COPY OF THE REQUEST HAS BEEN SERVED IN ITS ENTIRETY ON THE PATENT OWNER

A copy of this request has been served in its entirety on the Patent Owner in accordance with 37 C.F.R. § 1.915(b)(6) at the following address:

VAN PELT, YI & JAMES LLP
10050 N. Foothill Blvd. #200
Cupertino, CA 95014

E. 37 C.F.R. § 1.915(B)(7); CERTIFICATION THAT ESTOPPEL PROVISIONS DO NOT PROHIBIT *INTER PARTES* REEXAMINATION

Requesters hereby certify that they are not prohibited under the provisions of 35 U.S.C. § 317 or 37 C.F.R. § 1.907 from filing this Request for *inter partes* reexamination. Requesters may request *inter partes* reexamination because neither they, nor their privies, have previously requested *inter partes* reexamination of the '682 patent. 35 U.S.C. § 317(b); 37 C.F.R. § 1.907; M.P.E.P. § 2612.

F. 37 C.F.R. § 1.915 (a): FEE FOR REEXAMINATION

In accordance with 37 C.F.R. § 1.915(a), a credit card authorization to cover the Fee for reexamination of $8,800.00 is attached. If this authorization is missing or defective, please charge the Fee to the Novak Druce and Quigg Deposit Account No. 14-1437.

II. OVERVIEW OF THE '682 PATENT AND PROSECUTION HISTORY

A. INTRODUCTION

The '682 patent purports to disclose a system and method of "disseminating to a participant an indication that an item accessible by the participant via a network is of current interest." *See* '682 Patent, Abstract. The "Background of the Invention" asserts that the widespread proliferation of Web content "presents certain challenges from the perspective of users seeking content of current interest." '682 Patent, Col. 1, lines 42-43. One of these challenges, according to the '682 patent, is that "the shear [sic] volume of content available makes it difficult for users to find the content in which they are most interested in accessing at any given time." '682 Patent, Col. 1, lines 44-46. The specification further claims that "[a]part from having to sort through the enormous volume of content available, much of the content of potentially greatest interest, at least to many users, is dynamic. At certain times, a file or other electronic resource may be of great interest while at other times, or perhaps even most of the time, it is not great interest or not interesting at all." '682 Patent, Col. 1, lines 49-52.

In an attempt to address these and other perceived deficiencies, the '682 patent purports to disclose a system for alerting users of items of current interest. The system determines a user's level of interest for a particular item based on indications of interest provided by other users of the system. *See* '682 patent, Col. 2, lines 31-33. In particular, the system disclosed in

the '682 patent receives an indication from other (alerting) users that an item is of current interest, determines the level of interest in that item to a particular participant, and notifies the participant that the item is of current interest. These steps are reflected in all three independent claims of the '682 patent (*i.e.* claims 1, 2, and 3). Claim 1 of the '682 patent reads:

> A system for disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, comprising:
>
> a computer configured to receive in real time from a source other than the participant an indication that the item is of current interest; process the indication; determine an intensity value to be associated with the indication and an intensity weight value, and adjusting the intensity value based on a characteristic for the item provided by the source; and; and [sic] inform the participant that the item is of current interest; and
>
> a database, associated with the computer, configured to store data related to the item.

Independent claims 2 and 3 recite much of the same language as claim 1, but are written as a computer program product and a method claim, respectively. The dependent claims for which reexamination is requested all depend directly or indirectly from claim 3. These claims recite additional features such as, for example, associating items with a category (*see, e.g.*, claims 9-10) and ranking the items by the level of predicted interest (*see, e.g.*, claims 12-13).

B. ORIGINAL PROSECUTION HISTORY OF THE '682 PATENT

The '682 patent issued from U.S. Patent Application No. 09/656,638 ("'638 Application"), which was filed on September 7, 2000. The '638 Application included claims 1-20. *See* Application filed September 7, 2000, pp. 32-35. The '638 Application claimed priority to U.S. Provisional Patent Application Ser. No. 60/178,627, filed on January 28, 2000. *See* '638 Application Transmittal dated September 7, 2000.

On April 9, 2003, the PTO issued its first Office Action rejecting all claims as anticipated by U.S. Patent No. 6,385,619 to Eichstaedt et al. ("Eichstaedt"). *See* Office Action mailed April 9, 2003, p. 2. Eichstaedt discloses a method of generating a profile based on a user's own web activity, and using that profile to suggest content to the user. The Patent Owner mailed a response on July 3, 2003, in which independent Claim 1 was amended to recite, among other

things, "receiving in real time from a source other than the participant an indication that the item is of current interest." Application Claim 19 recited a system for practicing the method of claim 1, and Application Claim 20 recited a computer program product for practicing the method of claim 1. Claims 19-20 were amended in the same manner as claim 1. *See* Patent Owner Response filed July 10, 2003, p. 6. No other claims were amended in the reply. *See id.* at pp. 3-6. The Patent Owner attempted to distinguish amended claim 1 over Eichstaedt by arguing that Eichstaedt teaches a method of selecting items of interest to a user based on the user's *own* past actions, rather than based on indications of interest *by others*. *See id.* at p. 7.

On September 16, 2003, the PTO issued a second Office Action maintaining the rejection of claims 1-20 as anticipated by Eichstaedt. This action was made final. *See* Office Action mailed September 16, 2003, p. 2.

The Patent Owner requested an Examiner Interview, and it appears that a telephonic interview was held on November 18, 2003. *See* Applicant Initiated Interview Request Form received December 4, 2003. The Patent Owner filed a response that included a document entitled "Interview Summary Under 35 CFR § 1.133 and MPEP § 713.04," but which did not disclose the substance of the interview. The summary merely stated that an interview was held to discuss "the rejections of Claims 1-20 in light of [Eichstaedt] and the proposed amendments set forth herein were discussed with the intent of to place the claims in better condition for allowance or appeal." Patent Owner's Response received December 4, 2003, p.7.

In the Patent Owner's Response, claim 1 (renumbered as claim 3 in the issued patent) was amended to require "determining an intensity value to be associated with the indication and an intensity weight value, and adjusting the intensity value based on a characteristic for the item provided by the source…" *Id.* at p. 8. Claims 19 and 20 (renumbered as claims 1 and 2 in the issued patent, respectively) were amended in the same manner as claim 1 (except that claim 19 recited "determine" rather than "determining"). *Id.* at p. 6.

On December 17, 2003, the PTO issued a Notice of Allowability as to all pending claims. The Notice of Allowability did not include a statement of Reasons for Allowance. The Patent Owner paid the issue fee on December 18, 2003, and submitted formal drawings for the specification on March 8, 2004. The '682 patent issued on June 29, 2004.

III. PRIORITY DATE TO WHICH THE '682 PATENT IS ENTITLED

The application for the '682 patent was filed on September 7, 2000 and claims priority to U.S. Provisional Patent Application Serial No. 60/178,627 filed on January 28, 2000 ("the '627 Provisional") (Exhibit PAT-B). The claims of the '682 patent, however, are not entitled to the priority date of the '627 Provisional.

The Federal Circuit has held that unless the Office has explicitly considered priority date issues during prosecution of the patent (which did not occur here), the Patent Owner bears the burden of establishing entitlement to the priority date of an earlier-filed application. *See PowerOasis, Inc. v. T-Mobile USA, Inc.*, 522 F.3d 1299, 1303-07, 86 U.S.P.Q.2d 1385, 1388-89 (Fed. Cir. 2008). Under 35 U.S.C. §119(e), in order to claim the benefit of an earlier-filed provisional application, "the disclosure of the invention in the prior application and in the later-filed application must be sufficient to comply with the requirements of the first paragraph of 35 U.S.C. §112." MPEP §201.11(I) (citations omitted). As the Federal Circuit has recently emphasized, "[e]ntitlement to a filing date extends only to the subject matter that is disclosed [in the parent application]; not what is obvious. Therefore, the parent application must actually or inherently disclose the elements of the later-filed claims." *Research Corp. Tech., Inc. v. Microsoft Corp.*, 627 F.3d 859, 870, 97 U.S.P.Q.2d 1274 (Fed. Cir. 2010) (emphasis added). The MPEP further provides:

> for a nonprovisional application to be afforded the priority date of the provisional application, "the specification of the provisional must 'contain a written description of the invention and the manner and process of making and using it, in such full, clear, concise, and exact terms," 35 U.S.C. §112 ¶1, to enable an ordinarily skilled artisan to practice the invention claimed in the nonprovisional application.

MPEP §201.11(I)(A) (citing *New Railhead Mfg., L.L.C. v. Vermeer Mfg. Co.*, 298 F.3d 1290, 1948 (Fed. Cir. 2002)). MPEP 201.11(I)(A) further recites that "[i]f a claim in the provisional is not adequately supported by the written description and drawings (if any) of the provisional application (as in *New Railhead*), that claim in the nonprovisional application is not entitled to the benefit of the filing date of the provisional application."

The '682 patent is not entitled to the benefit of the filing date of the '627 Provisional in accordance with these standards. The disclosure of the sparse '627 Provisional included only

eight pages of text and two figures (neither of which was included with the subsequent non-provisional application). The '627 Provisional is directed to "a real time meta-data infrastructure allowing people who see interesting occurrences to alert other interested parties." PAT-B at p. 1. It describes a system for alerting users who are monitoring a web video when an interesting event occurs. *See id.* at pp. 2-3. According to the '627 Provisional, an alert is sent based on a "Sensitivity Threshold" and a "Time Span." *See id.* at p. 7. The Sensitivity Threshold is described as the number of alerts a particular URL receives, and the Time span is described as how recent the alerts were sent. *See id.* at pp. 5 and 7.

The '627 Provisional does not disclose or enable several elements recited in each issued independent claim of the '682 patent. Each independent claim recites, for example, determination of "an intensity value to be associated with the indication" and determination of "an intensity weight value." *See* '682 Patent, Claims 1-3. But neither of these elements is disclosed in any way in the '627 Provisional. The terms "intensity" and "weight," in fact, are nowhere to be found in the '627 Provisional, let alone "intensity value" or "intensity weight value." Because these elements are recited in all independent claims of the '682 patent, no claims are entitled to the January 28, 2000 filing date of the '627 Provisional. The priority date to which the '682 patent is entitled, therefore, is no earlier than September 7, 2000.

IV. IDENTIFICATION AND STATUS OF CO-PENDING LITIGATION IN WHICH THE '682 PATENT IS INVOLVED

A. RELATED CO-PENDING LITIGATION REQUIRES TREATMENT WITH SPECIAL DISPATCH AND PRIORITY OVER OTHER CASES

The '682 patent is presently the subject of co-pending litigation styled *Interval Licensing LLC v. AOL, Inc. et al.*, Case No. 2:10cv01385 (W.D. Wash.) ("the Concurrent Litigation") before the Honorable Marsha J. Pechman. See Exhibit OTH-A. The Patent Owner initiated the Concurrent Litigation on August 27, 2010 against Requesters and several other defendants, specifically AOL Inc., Google Inc., OfficeMax, Inc., and YouTube LLC. On December 10, 2010, the Court granted a motion to dismiss filed by the defendants and dismissed the Complaint without prejudice. The Patent Owner filed a First Amended Complaint on December 28, 2010 and, on the same day, served its "Disclosure of Asserted Claims and Infringement Contentions" purporting to explain how the defendants allegedly infringed claims 1-13, 16-17 and 20 of the

'682 patent and the other patents-in-suit. A copy of the infringement contentions served on Requesters with respect to the '682 patent are attached as Exhibit OTH-B.

Each Requester has denied that it infringes any claim of the '682 patent and contends that the patent is invalid and/or unenforceable. The Concurrent Litigation is currently in the early stages of discovery. A claim construction hearing is set for July 22, 2011 and a trial date with respect to the '682 patent is set for June 18, 2012.

Pursuant to 35 U.S.C. § 314, the Requesters respectfully urge that this Request be granted and reexamination be conducted not only with "special dispatch," but also with "priority over all other cases" in accordance with MPEP § 2661 due to the ongoing nature of the Concurrent Litigation. Further, pursuant to the policy of the Office concerning revised reexamination procedures to provide for a scheduling-type order of expected substantive action dates in Requests ordered after the Office's 2005 fiscal year, Requesters respectfully seek such a scheduling order upon the granting of this Request.

B. CLAIM CONSTRUCTION

For purposes of this Request, the claim terms are presented by the Requesters in accordance with 37 C.F.R § 1.555(b) and MPEP § 2111. Specifically, each term of the claims is to be given its "broadest reasonable construction" consistent with the specification. MPEP § 2111; *In re Swanson*, 540 F.3d 1368, 88 U.S.P.Q.2d 1196 (Fed. Cir. 2008); *In re Trans Texas Holding Corp.*, 498 F.3d 1290, 1298 (Fed. Cir. 2007) (citing *In re Yamamoto*, 740 F.2d 1569, 1571 (Fed. Cir. 1984)).

Although the court presiding over the Concurrent Litigation has yet to construe the claims of the '682 patent, the Federal Circuit noted in *Trans Texas* that the Office has traditionally applied a broader standard than a Court does when interpreting claim scope. MPEP § 2111. The Office applies to the verbiage of the proposed claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill in the art. *In re Morris*, 127 F.3d 1048, 1054-55, 44 U.S.P.Q.2d 1023, 1027-28 (Fed. Cir. 1997). The rationale underlying the "broadest reasonable construction" standard is that it reduces the possibility that a claim, after issue or certificate of reexamination, will be interpreted more broadly than is justified. 37 C.F.R § 1.555(b), MPEP § 2111.

Because the standards of claim interpretation used in the courts in patent litigation are different from the standards used by the Office in claim examination proceedings (including

reexamination), any claim interpretations submitted herein for the purpose of demonstrating an SNQ are not binding upon Requesters in any litigation related to the '682 patent; nor do such claim interpretations necessarily correspond to the construction of claims under the legal standards that are mandated to be used by courts in patent litigation. *See* 35 U.S.C. § 314; *see also* MPEP § 2686.04 II (determination of an SNQ is made independently of a court's decision on validity because of different standards of proof and claim interpretation employed by the district courts and the Office); *see also Trans Texas Holding*, 498 F.3d at 1297-98; *In re Zletz*, 893 F.2d 319, 322, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

The interpretation and/or construction of the claims in the '682 patent presented either implicitly or explicitly herein should not be viewed as constituting, in whole or in part, Requesters' own interpretation and/or construction of such claims, but instead should be viewed as constituting an interpretation and/or construction of such claims as may be raised by the Patent Owner through a broadest reasonable claim construction. In fact, Requesters expressly reserve the right to present their own interpretation of such claims at a later time, which interpretation may differ, in whole or in part, from that presented herein. This right includes, but is not limited to, construing or interpreting the claims in light of the Patent Owner's construction of the claims as set forth in the Patent Owner's Infringement Contentions or as reasonably inferred therefrom. Moreover, it would not be proper for the Patent Owner to assert later that the explicit and/or implicit constructions from its Infringement Contentions are outside the scope of the broadest reasonable interpretation of the claims. The Patent Owner's Infringement Contentions as to the Requesters are attached as Exhibit OTH-B.

Requesters note that certain claim terms in the '682 patent are indefinite. Requesters are aware that a substantial new question of patentability or proposed rejection cannot be based on § 112 indefiniteness. Requesters nonetheless note that any effort by Requesters to chart elements of any of the claims of the '682 patent should not be taken as an admission that any of the terms contained therein are sufficiently definite. Rather, Requesters are merely attempting to provide one possible reading of otherwise indefinite claim terms within the "broadest reasonable construction" standard applied during reexamination.[1]

[1] In fact, the Requesters are pursuing an invalidity defense in the Concurrent Litigation based on the indefiniteness of certain terms recited in the asserted claims of the '682 patent. Among the terms

C. INFRINGEMENT CONTENTIONS IN THE CONCURRENT LITIGATION

The Requesters have considered the specification of the '682 patent for determining the scope of the claim elements. However, the Requesters also identify excerpts of Patent Owner's Infringement Contentions ("Infringement Contentions") to demonstrate Patent Owner's broad construction of the claim elements. *See* OTH-B. As can be seen from the Patent Owner's Infringement Contentions, its interpretation of the claims is exceedingly broad and/or ambiguous. The Requesters do not agree with the Patent Owner's claim interpretation and/or claim construction, but the Requesters request that the Office note the Patent Owner's Infringement Contentions for purposes of the reexamination because such contentions constitute an admission by the Patent Owner. 37 CFR § 1.104(c)(3), MPEP § 2217.

Although the Requesters do not agree with the Patent Owner's infringement allegations, Requesters nonetheless provide the Infringement Contentions to provide the Examiner with examples of how the Patent Owner views its own claims. Again, please note that the Requesters expressly reserve the right to present their own interpretation of such claims at a later time, which interpretation may differ, in whole or in part, from that presented herein.

V. SUMMARY AND § 102/103 DATE QUALIFICATION OF THE PRIOR ART

A. BEZOS

U.S. Patent No. 7,082,407 to Jeffrey P. Bezos et al., entitled "Purchase Notification Service for Assisting Users in Selecting Items from an Electronic Catalog" ("Bezos"), issued July 25, 2006 from U.S. Application No. 09/377,322, filed on August 19, 1999. Bezos claims priority benefit of U.S. Provisional Application No. 60/128,557, filed April 9, 1999.

Bezos qualifies as prior art to the '682 patent under 35 U.S.C. § 102(e) for two independent reasons. First, Bezos issued from an application filed in the United States on August 19, 1999, prior to the earliest application to which the '682 patent could attempt to claim

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Requesters have already identified as indefinite include: "indication" (all claims); "receive/receiving in real-time" (all claims); "intensity weight value" (all claims); "adjusting the intensity value" (all claims); "based on a characteristic for the item provided by the source" (all claims); "[item… of] current interest" (all claims); "current" (claims 1 and 2); "a computer configured to… inform the participant that the item is of current interest" (claim 1); "computer instructions for . . . informing the participant that the item is of current interest" (claim 2); "based at least in part on the intensity value of the indication" (claims 5 and 6); "identifying all items of current interest within the selected categories" (claims 6 and 11-13); and "associating the item with a category of interest to which the item relates" (claims 6, 9 and 11).

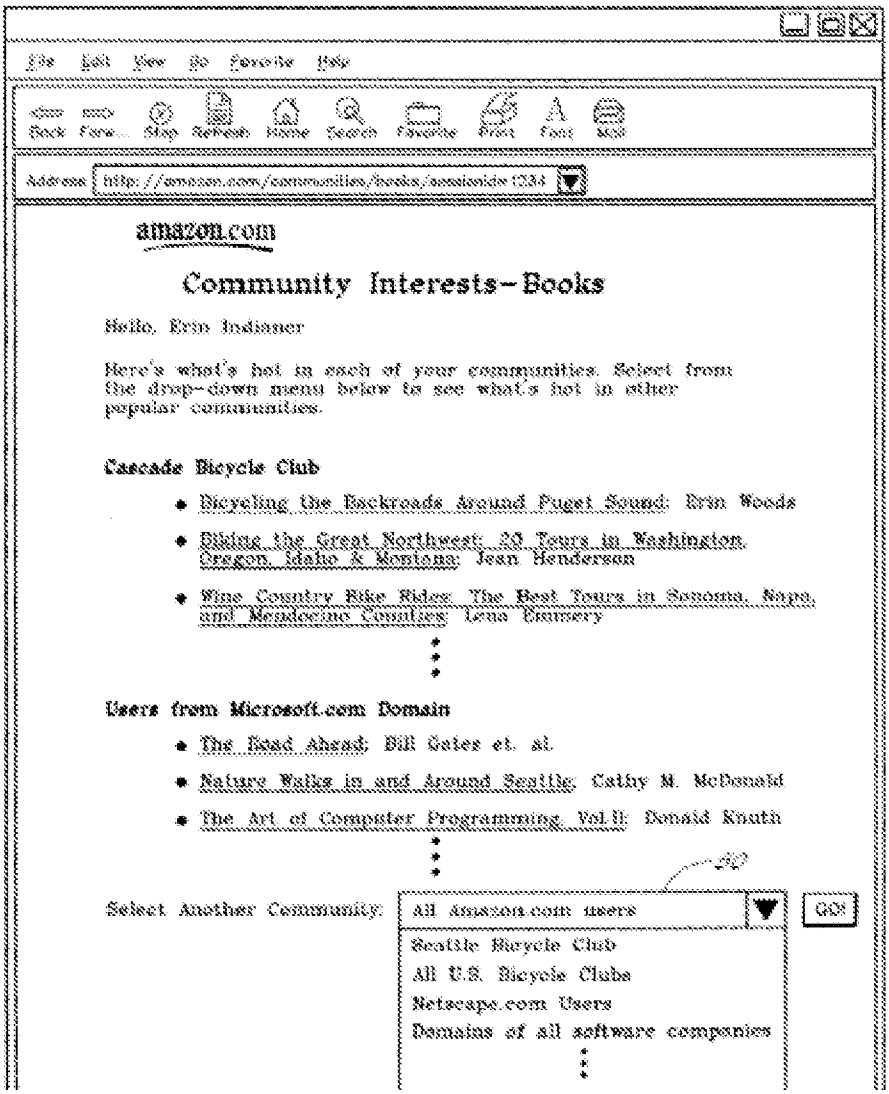
priority. Second, Bezos itself claims priority to an earlier-filed provisional application, U.S. Provisional Application No. 60/128,557, filed on April 9, 1999. The invalidating disclosures from the issued Bezos '407 patent were identically present in the earlier-filed provisional application, as shown beginning on page 1 of the specification of the Bezos provisional application. Bezos is therefore entitled to a § 102(e) priority date of no later than April 19, 1999. *See Ex parte Yamaguchi*, 88 U.S.P.Q.2d 1606, 1609, 2008 WL 4233306, at *3-4 (BPAI 2008) (holding that an issued patent claiming the benefit of earlier-filed provisional application is prior art under § 102(e) as of the filing date of the provisional application). A copy of the issued Bezos '407 patent is attached as Exhibit PA-A, and a copy of the provisional application to which it claims priority is attached as Exhibit PA-A1.

Bezos describes a computerized system referred to as a "Community Interests" system that notifies users that particular items, such as books and other products, are of interest. A user selects one or more member communities, which can relate to specific activities (e.g., bicycle or hiking clubs) or particular organizations (e.g., employees of a particular company). *See* Bezos, Col. 6, lines 8-17 and Col. 8, lines 14-20. The system then notifies members of those communities whenever books and other products have become popular among other community members. "The Community Interests services operate generally by tracking purchases of books within particular user communities, and using this information to assist potential customers in locating and evaluating book titles." Bezos, Col. 5, lines 1-4. One such service, known as the "Hotseller Notification" service,

> automatically notifies users of titles that have become unusually popular within their respective communities. For example, a user within a particular hiking club might be notified that several other users within his club have recently purchased a new book on local hiking trails. In one embodiment, a community's "hotsellers" are identified by comparing, for each title on the community's bestseller list, the title's popularity within the community to the title's popularity within the general user population.

Bezos, Col. 6, lines 8-17.

When an item of interest is identified, the user is notified via email or through a Web page. *See* Bezos, Col. 10, lines 3-8. One such example is illustrated in Figure 2, shown below, which depicts an exemplary email message notifying a member about certain "hot selling" items in two of its communities ("Cascade Bicycle Club" and "Users from Microsoft.com Domain"):



Bezos – Figure 2

Bezos discloses a series of techniques for identifying and ranking best-selling items within a community. *See* Bezos, Col. 12, line 24-Col. 14, line 34. In particular, the Community Interests system monitors certain purchase-related events by other users such as buying, rating or reviewing a book or other product. *See* Bezos, Col. 1, lines 45-51; Col 12, lines 24-33; *and* Col. 13, lines 46-51. The Bezos system processes these indications of interest by computing a score for the item based on, for example, the number of times it has been purchased by other members of the communities to which the user belongs. *See* Bezos, Col. 12, lines 40-42 *and* Col. 12, lines 45-55; *see also* Col. 13, lines 1-6. To refine further the list of items that are becoming popular, Bezos applies "velocity" and "acceleration" values that are used to track the rate at which the

item has climbed up the bestseller's list over time and to identify "hot selling" items. *See* Bezos, Col. 5, lines 45-50 *and* Col. 13, lines 10-22. The resulting list of popular items is ranked, sorted, and then provided to the user. *See* Bezos, Col. 13, lines 1-9; Col. 14, lines 15-34; *see also* Bezos, Figures 2, 7A, and 7B.

B. SPIEGEL

U.S. Patent No. 6,466,918 to Joel R. Spiegel et al., entitled "System and Method for Exposing Popular Nodes Within a Browse Tree" ("Spiegel"), issued October 15, 2002 from U.S. Application No. 09/433,013, filed on November 18, 1999. Spiegel qualifies as prior art to the '682 patent under 35 U.S.C. § 102(e). A copy of the Spiegel patent is attached as Exhibit PA-B.

Spiegel discloses a system for identifying and notifying users of popular items within an on-line system. Spiegel is closely related to the system disclosed in Bezos; they both purport to describe aspects of Amazon.com (the assignee of both patents), and Spiegel explicitly incorporates by reference the disclosures of Bezos. *See* Spiegel, Col. 10, lines 52-58.[2] Spiegel and Bezos are therefore properly treated as a single prior art reference for invalidity purposes as authorized by MPEP 2163.07(b).

Spiegel, like Bezos, discloses a system for recommending popular items to a user based on the activities of other users. Spiegel, Col. 1, lines 60-66; Col. 2, lines 46-67. Because Spiegel incorporates by reference the entirety of Bezos, the summary of Bezos set forth above is not repeated here. Spiegel is cited in this Request because it provides an alternative technique in addition to the one disclosed in Bezos for determining and adjusting the values associated with purchase-related events by other users. In particular, when another user purchases an item, searches for it, adds the item to its shopping cart or provides a rating, the value associated with that indication is adjusted in accordance with its significance. "For example, actual purchases are preferably given more weight than merely placing an item in a shopping cart." Spiegel, Col. 13, lines 42-43. An example is provided in Table 7, which shows some actions (such as "Purchase") being given numerically greater significance than other actions:

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[2] Spiegel specifically incorporates by reference the disclosures of the Bezos provisional application, U.S. Provisional Application No. 60/128,557, filed April 9, 1999, not the issued Bezos patent. *See* Spiegel, Col. 10, lines 52-58. This distinction is of no significance because, as explained in Section V.A above, the disclosures of the issued Bezos patent were also disclosed in the earlier-filed provisional application.

TABLE 7

Purchase	10
Click-through	1
Search	3
Rating	8
Shopping Cart	7

Table 7 – Spiegel

These numbers are used as multipliers to adjust the value given to the indication of interest – thus affecting whether the item will be recommended to the user. This adjustment is shown in Table 8, which shows the calculation of scores for categories of items:

TABLE 8

Book Category	Purchase (10)		Click-Through (1)		Search (3)		Rating (8)		Shopping Cart (7)		Weighted Scores
Air Sports & Recreation	(564 * 10)	+	(616 * 1)	+	(1055 * 3)	+	(61 * 8)	+	(57 * 7)	=	16009
Audiobooks	(2016 * 10)	+	(8465 * 1)	+	(2461 * 3)	+	(248 * 8)	+	(189 * 7)	=	39315
Automotive	(5354 * 10)	+	(7715 * 1)	+	(3403 * 3)	+	(1127 * 8)	+	(2092 * 7)	=	95124
. . .											
Reference	(715 * 10)	+	(946 * 1)	+	(1035 * 3)	+	(183 * 8)	+	(247 * 7)	=	14394
Scuba	(226 * 10)	+	(546 * 1)	+	(887 * 3)	+	(311 * 8)	+	(302 * 7)	=	10069
Swimming	(3452 * 10)	+	(4652 * 1)	+	(4512 * 3)	+	(415 * 8)	+	(521 * 7)	=	59675
Yoga	(1530 * 10)	+	(765 * 1)	+	(996 * 3)	+	(534 * 8)	+	(454 * 7)	=	26503

Table 8 – Spiegel

Spiegel further discloses that this calculation "may be extended to generate individual and/or user history scores for specific items of the catalog." Spiegel, Col. 15, lines 48-50. Popular items may be presented to the user in ranked order so items with the highest scores appear at the top of the list. *See* Spiegel Table 3, Col. 9, lines 17-18.

C. RUCKER

U.S. Patent No. 6,195,657 to James L. Rucker et al. entitled "Software, Method and Apparatus for Efficient Categorization and Recommendation of Subjects According to

Multidimensional Semantics" ("Rucker") issued on February 27, 2001 from U.S. Application No. 08/936,726, filed September 25, 1997. Rucker therefore qualifies as prior art to the '682 patent under 35 U.S.C. § 102(e).

Rucker describes "[a] system for determining recommendations which are likely to be relevant to a user's current interests." Rucker, Abstract. The system in Rucker maintains a database of items that can be identified and recommended to a participant, which can include documents (referred to in Rucker as "information objects"), categories of information objects, or even other users. *See* Rucker, Col. 2, lines 8-21 *and* Col. 6, lines 3-11. In fact, "any uniquely identifiable object is recommendable." Rucker, Col. 2, lines 20-21. Another user indicates interest in an object by submitting it to the recommendation system within a specific category:

> Each recommended information object delivered to the target user was submitted to the recommendation system by one or more "originating users". For each originating user the information object was submitted in the context of a particular category, referred to as the "originating category". As well as delivering recommended information objects, at step 408 the recommendation system will additionally deliver identifiers of the originating categories and originating users.

Rucker, Col. 5, line 65-Col. 6, line 2 (emphasis added).

The "originating user" submits items to the recommendation system by creating an "electronic folder" (*i.e.*, a category) on his or her local computer, and associating one or more associated information objects to that category. *See* Rucker, Col. 4, lines 51-63; *see also* Rucker, Col. 6, lines 18-22. Users can also provide numerical ratings for each item that indicate the degree of relevance of an object to a category. *See* Rucker, Col. 12, lines 23-32. This rating is optional and not required by the recommendation system, "but its inclusion can potentially lead to a more precise ranking of recommendations." Rucker, Col. 12, lines 31-32.

Rucker calculates a value called a "match count" that represents the number of objects within the "originating category" that are also present in at least one category of the participant (referred to in Rucker as the "target user category"). The "match count," in other words, reflects the number of shared objects between the "target user" and the originating user's category. *See* Rucker, Col. 12, lines 33-39 *and* Col. 13, lines 1-14 *and* Figure 8. This "match count" value is then adjusted based on the rating for the shared object(s) provided by the originating user (when one has been provided). *See* Rucker, Col. 13, lines 15-26. The adjusted "match count" values

for each originating category, in turn, are used to calculate a "score" for the objects contained in the categories. *See* Rucker, Col. 12, lines 1-31 *and* Col. 13, lines 15-26. The system in Rucker then assembles a "recommendations list" ordered based on the "score" for each item and disseminates the list to the user. *See* Rucker, Col. 14, lines 32-48.

D. SHEENA

U.S. Patent No. 6,049,777 to Jonathan Ari Sheena et al. entitled "Computer-Implemented Collaborative Filtering Based Method for Recommending an Item to a User" ("Sheena") issued on April 11, 2000 from U.S. Application No. 08/818,515, filed March 14, 1997. Sheena therefore qualifies as prior art to the '682 patent under 35 U.S.C. § 102(e), and/or under 35 U.S.C. § 102(a) if the '682 patent is not entitled to claim priority to its priority provisional application. *See* Section III, above. A copy of Sheena is attached hereto as Exhibit PA-D.

Sheena describes a system and method for recommending items to users based on ratings provided by other users. Specifically, Sheena describes a system in which users can provide ratings for a plurality of items that are stored in a database as part of a user profile. Ratings may be entered on an alphabetic scale (e.g., "A" to "F") or on a numerical scale (e.g., "1" to "10"). *See* Sheena, Col. 4, lines 21-26. When a user submits a new rating, the system compares that rating to the rating of other users who have rated the same item. *See* Sheena, Col. 7, lines 54-56. Based on those ratings, the system then calculates a "similarity factor" between each pair of users reflecting the correlation between those two users' ratings. *See* Sheena, Col. 7, lines 42-47; Col. 9, lines 31-56 (describing algorithm for calculating similarity factor).

The similarity factor is then used to select a set of "neighboring users" for each individual user, the neighboring users having a high degree of correlation to the individual user. *See* Sheena, Col. 10, lines 18-20. A weight is assigned to each neighboring user so that neighboring users with high similarity factors will be assigned higher weights. *See* Sheena, Col. 11, lines 26-34. Weights may also be assigned based on users' level of experience or expertise in a certain field. *See* Sheena, Col. 11, lines 35-44. The ratings provided by each neighboring user are then weighted based on each neighboring user's assigned weight and the results of that analysis are used to recommend items to the individual user. *See* Sheena, Col. 2, lines 17-20.

Additionally, Sheena discloses the use of categories for items that are used to further increase recommendation certainty. *See* Sheena, Col. 14, lines 30-36. When submitting a rating of an item, users can enter information about the category to which the item belongs (e.g. music-

related items may be grouped according to genres such as "pop," "rock," "opera" and others). *See* Sheena, Col. 14, lines 30-39.

E. ROSE

U.S. Patent No. 5,724,567 to Daniel E. Rose et al., entitled "System for Directing Relevance-Ranked Data Objects to Computer Users" ("Rose"), issued March 3, 1998 from U.S. Application No. 08/231,656, filed April 25, 1994. Rose qualifies as prior art to the '682 patent under 35 U.S.C. § 102(b). A copy of Rose is attached hereto as Exhibit PA-E.

Rose discloses systems and methods for identifying items that may be of interest to a user. Specifically, Rose describes a system where users are able to provide indications of interest for various items. *See* Rose, Col. 5, lines 26-35. One example is provided in Figure 4 of Rose, shown below, in which a user can indicate interest in a particular item by clicking on a "thumbs-up" or "thumbs-down" icon. *See* Rose, Col. 5, lines 26-32.

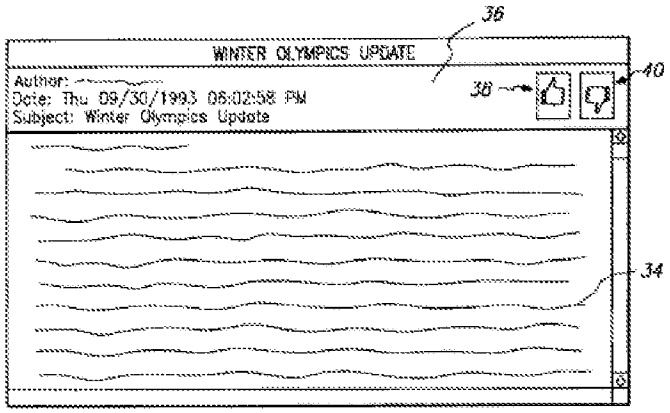


FIG. 4

Figure 4 – Rose

When a "thumbs-up" or "thumbs-down" indication is received from the user, the system updates the profile of the user who provided the indication. *See* Rose, Col. 5, lines 32-35. The system also provides the user with additional options to indicate a more specific level of interest (*e.g.* high, medium, low, etc.). *See* Rose, Col. 5, lines 39-42. The system uses those indications to calculate a "correlation matrix" reflecting the degree of correlation between the various users' interests in commonly retrieved messages. *See* Rose, Col. 6, line 67-Col. 7, line 5. The correlation matrix reflects the degree of similarity between a pair of users such that a pair of users who have indicated interest in similar items will have a higher correlation measure than a pair of users who have not.

When an individual user uses the system in Rose, the indications provided by other users are used in combination with the correlation measures to predict the likelihood that the individual user will be interested in a given item. *See* Rose, Col. 7, lines 10-33 (discussing algorithm for determining predicted level of interest in a particular document). The system in Rose then presents the user with a ranked list of items in order based on the predicted level of interest. *See* Rose, Col. 9, lines 40-44. An example of a ranked list of recommended items which can be presented to a user is shown below in Figure 3, with the left-most column (entitled "Score") showing the predicted level of interest for each item:

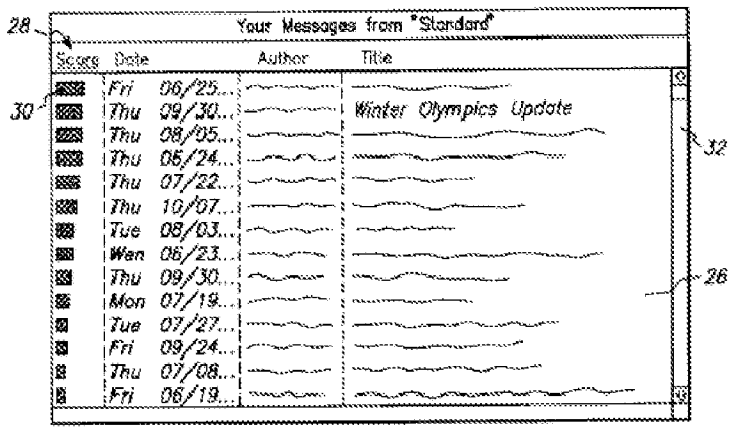


FIG. 3

Figure 3 – Rose

These rankings can be updated each time a user submits a new indication. *See* Rose, Col. 9, lines 36-38.

F. MEUNIER

U.S. Patent No. 6,681,369 to Jean-Luc Meunier, entitled "System for Providing Document Change Information for a Community of Users" ("Meunier"), issued on January 20, 2004 from U.S. Application No. 09/305,845, filed May 5, 1999. Meunier qualifies as prior art to the '682 patent under 35 U.S.C. § 102(e). A copy of Meunier is attached hereto as Exhibit PA-F.

Meunier discloses a system for recommending items of current interest to users by detecting changes to existing documents and notifying users about those changes. Meunier explains that "[t]he ever-increasing universe of electronic information, for example as found on the World Wide Web (herein after referred to as the Web), competes for the effectively fixed and limited attention of people. Both consumers and producers of information want to understand

what kinds of information are available, how desirable it is, and how its content and use change through time." Meunier, Col. 1, lines 13-19. Meunier explains that "[c]hanges to documents are also of interest to users. Such changes can take many forms: substantive content change, cosmetic/syntactic changes, and disappearance of the document." Meunier, Col. 2, lines 1-4. He claims that one of the failings of existing recommender systems is that "they provide static recommendations of potentially dynamic objects." Meunier, Col. 1, lines 65-67.

Meunier purports to overcome these limitations by providing a system that monitors and detects changes to existing documents to locate items of interest. Meunier, Col. 5, lines 16-18 ("A document change monitoring agent provides a means to track changes in online documents and to notify interested people about the change."). Meunier combines this document change system with existing recommender systems so that users can be notified that recommended documents have since changed, and therefore, are of current interest. *See* Meunier, Col. 4, lines 47-50 ("By coupling the document change monitoring agent with a recommender system, users who have recommended items which have since changed can be notified of that change, if they so desire.").

VI. SUBSTANTIAL NEW QUESTIONS OF PATENTABILITY UNDER 37 CFR § 1.915 (B)

This section presents a brief summary of the prior art and its application in the SNQs. A more detailed discussion of the manner of applying the prior art to the claims of the '682 patent for which reexamination is requested is provided in Section VII below beginning on page 31.

A. SUMMARY IDENTIFICATION OF SNQS AND REQUESTERS' PROPOSED REJECTIONS

This Request raises several substantial new questions of patentability as to claims 1-13, 16-17, and 20 of the '682 patent. For ease of reference for the Examiner, the SNQs identified in this Request are set forth in the chart below:

No.	Substantial New Questions for the '682 Patent
1	Bezos raises an SNQ as to claims 1-13, 16-17, and 20 under 35 U.S.C. § 102
2	Spiegel raises an SNQ as to claims 1-13, 16-17, and 20 under 35 U.S.C. § 102
3	Bezos in view of Spiegel raises an SNQ as to claims 1-13, 16-17, and 20 under 35 U.S.C. § 103

No.	Substantial New Questions for the '682 Patent
4	Bezos in view of Meunier raises an SNQ as to claims 1-13, 16-17, and 20 under 35 U.S.C. § 103
5	Spiegel in view of Meunier raises an SNQ as to claims 1-13, 16-17, and 20 under 35 U.S.C. § 103
6	Rucker raises an SNQ as to claims 1-13, 16-17, and 20 under 35 U.S.C. § 102
7	Sheena raises an SNQ as to claims 1-5, 8-10, 16-17, and 20 under 35 U.S.C. § 102
8	Sheena in view of Bezos raises an SNQ as to claims 6-7 and 11-13 under 35 U.S.C. § 103
9	Rose raises an SNQ as to claims 1-5, 8, 17, and 20 under 35 U.S.C. § 102
10	Rose in view of Bezos raises an SNQ as to claims 6-7, 9-13, and 16 under 35 U.S.C. § 103
11	Rose in view of Sheena raises an SNQ as to claims 9-10 and 16 under 35 U.S.C. § 103

Based on these SNQs and the prior art cited in this Request, the Requesters propose that the PTO enter the following rejections with respect to claims 1-13, 16-17 and 20:

No.	Proposed Rejections for the '682 Patent
1	Claims 1-13, 16-17, and 20 are ***anticipated*** by Bezos
2	Claims 1-13, 16-17, and 20 are ***anticipated*** by Spiegel
3	Claims 1-13, 16-17, and 20 are ***obvious*** over Bezos in view of Spiegel
4	Claims 1-13, 16-17, and 20 are ***obvious*** over Bezos in view of Meunier
5	Claims 1-13, 16-17, and 20 are ***obvious*** over Spiegel in view of Meunier
6	Claims 1-13, 16-17, and 20 are ***anticipated*** by Rucker
7	Claims 1-5, 8-10, 16-17, and 20 are ***anticipated*** by Sheena

No.	Proposed Rejections for the '682 Patent
8	Claims 6-7 and 11-13 are ***obvious*** over Sheena in view of Bezos
9	Claims 1-5, 8, 17, and 20 are ***anticipated*** by Rose
10	Claims 6-7, 9-13, and 16 are ***obvious*** over Rose in view of Bezos
11	Claims 9-10 and 16 are ***obvious*** over Rose in view of Sheena

B. BEZOS RAISES SNQS AS TO CLAIMS 1-13, 16-17, AND 20 (SNQ NOS. 1, 3, 4, 8, AND 10)

Bezos was not before the Office during the original prosecution of the '682 patent. As discussed below in Section VII.A beginning on page 31, Bezos teaches all the limitations of claims 1-13, 16-17, and 20, including the amendments made by Patent Owner to distinguish the prior art. Bezos is not cumulative to any prior art previously considered. Before the Notice of Allowance, the claim rejections were traversed in light of the following amendment: "As amended, Claim 1 recites '... determining an intensity value to be associated with the indication and an intensity weight value, and adjusting the intensity value based on a characteristic for the item provided by the source ....'" Patent Owner's Response received December 4, 2003, p.8.

Because Bezos teaches the above technical features under their broadest reasonable construction, along with each element of claims 1-13, 16-17, and 20, a reasonable examiner would consider Bezos important in deciding the patentability of the '682 patent. For example, as explained in more detail in the summary provided in Section V.A above at page 13, Bezos discloses a series of techniques for identifying and ranking best-selling items of interest within a community. *See* Bezos, Col. 12 line 24-Col. 14, line 34. The system monitors certain purchase-related events by other users such as buying, rating or reviewing a book or other product. *See* Bezos, Col. 1, lines 45-51; *see also* Bezos, Col. 12, lines 24-33 *and* Col. 13, lines 46-51. The system of Bezos computes a score for the item based on, among other things, the number of times it has been purchased by other members of the communities to which the user belongs. *See* Bezos, Col. 12, lines 40-42 and lines 45-55; *see also* Bezos, Col. 13, lines 1-6; Bezos, Figure 6. The scores can be adjusted based on characteristics for the item provided by other users, such as product ratings, reviews, or other user actions. *See* Bezos, Col. 13, lines 46-51.

To refine further the list of items that are becoming popular, Bezos applies "velocity" and "acceleration" values that track the rate at which the item has climbed up the bestseller's list over time. *See* Bezos, Col. 5, lines 45-50 and Col. 13, lines 10-22. The resulting list of popular items is ranked, sorted, and then provided to the user. *See* Bezos, Col. 13, lines 1-9; *see also* Bezos, Col. 14, lines 15-34 *and* Bezos, Figures 2, 7A, and 7B.

In view of the above and the detailed application of the prior art against the claims presented below and in the attached claim charts, Bezos raises an SNQ under 35 U.S.C. § 102 as to claims 1-13, 16-17, and 20 because it teaches all features of claims 1-13, 16-17, and 20 (SNQ No. 1), including those that the Applicants argued were missing from the prior art considered in the original prosecution. Bezos raises two additional SNQs as to claims 1-13, 16-17, and 20 under 35 U.S.C. § 103 in view of Spiegel and in view of Meunier, respectively (SNQ Nos. 3 and 4). Moreover, Bezos raises an SNQ as to claims 6-7 and 11-13 under 35 U.S.C. § 103 when combined with Sheena (SNQ No. 8), and an SNQ as to claims 6-7, 9-13, and 16 under 35 U.S.C. § 103 when combined with Rose (SNQ No. 10). Spiegel, Sheena, and Rose are discussed separately below.

C. SPIEGEL RAISES SNQS AS TO CLAIMS 1-13, 16-17, AND 20 (SNQ NOS. 2, 3, AND 5)

Spiegel was not before the Office during the original prosecution of the '682 patent. As discussed below in Section VII.B.1 beginning on page 63, Spiegel teaches all the limitations of claims 1-13, 16-17, and 20, including the amendments made by Patent Owner to distinguish the prior art. Spiegel also renders obvious claims 1-13, 16-17 and 20 when combined with Bezos, as explained in Section VII.B.2 beginning on page 66, below. Spiegel is not cumulative to any prior art previously considered. Before the Notice of Allowance, the existing claim rejections were traversed in light of the following amendment: "As amended, Claim 1 recites '... determining an intensity value to be associated with the indication and an intensity weight value, and adjusting the intensity value based on a characteristic for the item provided by the source ....'" Patent Owner's Response received December 4, 2003, p.8.

Because Spiegel teaches the above technical features under their broadest reasonable construction, along with each element of claims 1-13, 16-17, and 20, a reasonable examiner would consider Spiegel important in deciding the patentability of the '682 patent. As explained in more detail in Section V.B above at page 16, Spiegel incorporates by reference the entirety of

Bezos. *See* Spiegel, Col. 10, lines 52-58. Spiegel and Bezos are therefore properly treated as a single prior art reference for invalidity purposes as authorized by MPEP 2163.07(b).

Like Bezos, Spiegel discloses a technique for identifying and ranking items of interest by monitoring certain purchase-related events by other users such as buying, rating or reviewing a book or other product. Because Spiegel fully incorporates and includes the disclosures of Bezos, it raises an SNQ for at least the same reasons explained in the preceding section. However, Spiegel discloses an additional algorithm for computing the scores used to identify recommended items. In particular, when another user purchases an item, searches for it, adds the item to its shopping cart, or provides a rating for the item, the value associated with that indication can be adjusted in accordance with the perceived significance of the user's action. "For example, actual purchases are preferably given more weight than merely placing an item in a shopping cart." Spiegel, Col. 13, lines 42-43; *see also* Spiegel Table 7 (showing certain user actions (such as product purchases) being given greater significance than other actions), *id.* Table 8 (showing score adjustment through a use of different numerical multipliers based on type of user action). Spiegel further discloses that its calculation "may be extended to generate individual and/or user history scores for specific items of the catalog." Spiegel, Col. 15, lines 48-50. Popular items may be ranked and presented to the user in order. *See* Spiegel Table 3, Col. 9, lines 17-18. For these additional reasons, Spiegel raises an SNQ as to claims 1-13, 16-17, and 20, above and beyond its incorporation of Bezos.

In view of the above and the detailed application of the prior art against the claims presented below and in the attached claim charts, Spiegel raises an SNQ under 35 U.S.C. § 102 as to claims 1-13, 16-17, and 20 because it teaches all features of claims 1-13, 16-17, and 20 (SNQ No. 2), including those that the Applicants argued were missing from the prior art considered in the original prosecution. Moreover, Spiegel raises two additional SNQs as to claims 1-13, 16-17, and 20 under 35 U.S.C. § 103 when combined with Bezos and Meunier, respectively (SNQ Nos. 3 and 5), neither of which was considered by the Office during the original prosecution.

D. RUCKER RAISES AN SNQ AS TO CLAIMS 1-13, 16-17, AND 20 (SNQ NO. 6)

Rucker was not before the Office during the original prosecution of the '682 patent. As discussed below in Section VII.A beginning on page 72, Rucker teaches all the limitations of

claims 1-13, 16-17, and 20, including the amendments made by Patent Owner to distinguish the prior art. Rucker is not cumulative to any prior art previously considered. Before the Notice of Allowance, the claim rejections were traversed in light of the following amendment: "As amended, Claim 1 recites '... determining an intensity value to be associated with the indication and an intensity weight value, and adjusting the intensity value based on a characteristic for the item provided by the source ....'" Patent Owner's Response received December 4, 2003, p.8.

Because Rucker teaches the above technical features under their broadest reasonable construction, along with each element of claims 1-13, 16-17, and 20, a reasonable examiner would consider Rucker important in deciding the patentability of the '682 patent. For example, as explained in more detail in the summary provided in Section V.A above at page 17, Rucker describes "[a] system for determining recommendations which are likely to be relevant to a user's current interests." Rucker, Abstract. Another user indicates interest in an object by submitting it to the recommendation system within a specific category, with an optional numerical rating indicating its degree of relevance. *See* Rucker, Col. 5, line 65-Col. 6, line 2 and Col. 12, lines 23-32. The system in Rucker identifies items by calculating a "score" for each potentially recommendable item, then assembling a "recommendations list" ordered based on the respective score for each item. *See* Rucker, Col. 14, lines 32-48.

More specifically, Rucker calculates the "score" for each item by determining a value for all categories submitted by other "originating users." This value, called a "match count," represents the number of objects within the category submitted by the "originating user" that are also present in at least one category of the participant (referred to in Rucker as the "target user category"). *See* Rucker, Col. 12, lines 33-39 *and* Col. 13, lines 1-14 *and* Figure 8. This "match count" value is then adjusted based on the rating for the shared object(s) provided by the originating user (when one has been provided). *See* Rucker, Col. 13, lines 15-26. The adjusted "match count" values for each originating category, in turn, are used to calculate the "score" for the objects contained in the categories. *See* Rucker, Col. 12, lines 1-31.

In view of the above and the detailed application of the prior art against the claims presented below and in the attached claim charts, Rucker raises an SNQ under 35 U.S.C. § 102 as to claims 1-13, 16-17, and 20 because it teaches all features of claims 1-13, 16-17, and 20 (SNQ No. 6), including those that the Applicants argued were missing from the prior art

considered in the original prosecution.

E. SHEENA RAISES SNQS AS TO CLAIMS 1-13, 16-17, AND 20 (SNQ NOS. 7, 9, 11)

Sheena was not before the Office during the original prosecution of the '682 patent. Sheena anticipates claims 1-5, 8-10, 16-17 and 20 as discussed below in Section VII.F beginning on page 72. Sheena also renders obvious claims 6-7 and 11-13 when combined with Bezos, as discussed below in Section VII.G beginning on page 123, and renders claims 9-10 and 16 obvious when combined with Rose, as discussed in Section VII.J beginning on page 143.

Sheena is not cumulative to any prior art previously considered. Before the Notice of Allowance, the claims were traversed in light of the following amendment: "As amended, Claim 1 recites '... determining an intensity value to be associated with the indication and an intensity weight value, and adjusting the intensity value based on a characteristic for the item provided by the source ....'" Patent Owner's Response received December 4, 2003, p.8.

Because Sheena teaches the above technical features, under their broadest reasonable construction, and either anticipates or renders obvious claims 1-13, 16-17, and 20, a reasonable Examiner would consider it important in deciding the patentability of the '682 patent. In particular, Sheena discloses a system that allows other users to submit an indication of interest such as a rating for an item. The system compares that rating to the rating of other users who have rated the same item. *See* Sheena, Col. 7, lines 54-56. Based on those ratings, the system calculates a "similarity factor" between each pair of users reflecting the correlation between those two users' ratings. *See* Sheena, Col. 7, lines 42-47; Col. 9, lines 31-56 (describing algorithm for calculating similarity factor). The similarity factor is then used to select a set of "neighboring users" for each individual users who have a high degree of correlation to the individual user. *See* Sheena, Col. 10, lines 18-20. A weight is assigned to each neighboring user so that neighboring users with high similarity factors will be assigned higher weights. *See* Sheena, Col. 11, lines 26-34. Weights may also be assigned based on users' level of experience or expertise in a certain field. *See* Sheena, Col. 11, lines 35-44. The ratings provided by each neighboring user are then weighted based on each neighboring user's assigned weight and the results of that analysis are used to recommend items to the individual user. *See* Sheena, Col. 2, lines 17-20.

In view of the above, and the detailed application of the prior art against the claims presented below and the attached claim charts, Sheena raises an SNQ with respect to claims 1-13, 16-17, and 20 because, in a new and non-cumulative manner: it (a) teaches all features of claims 1-5, 8-10, 16-17, and 20 (SNQ No. 7) and therefore raises an SNQ under 35 U.S.C. § 102; (b) raises an SNQ under 35 U.S.C. § 103 as to dependent claims 6-7 and 11-13 when combined with Bezos (SNQ No. 8); and (c) raises an SNQ under 35 U.S.C. § 103 as to dependent claims 9-10 and 16 when combined with Rose (SNQ No. 11). Rose is discussed separately below.

F. ROSE RAISES SNQS AS TO CLAIMS 1-13, 16-17, AND 20 (SNQ NOS. 9-11)

Rose was cited during the original prosecution, but it appears to have received summary or cursory treatment with respect to its applicability to the '682 patent. Rose was not mentioned in any Office Action, let alone relied upon as part of any rejection. Nor is there any record of Rose having been specifically considered in evaluating the amendment that led to the Notice of Allowability. There is nothing in the file history explaining how the claims could have been deemed patentable over Rose.

The MPEP is clear that, for any reexamination requested on or after November 2, 2002, a substantial new question of patentability can be found based entirely on art that was cited in the original prosecution. "Determinations on whether a substantial new question of patentability exists in such an instance shall be based upon a fact-specific inquiry done on a case-by-case basis. For example, a substantial new question of patentability may be based solely on old art where the old art is being presented/viewed in a new light, or in a different way, as compared with its use in the earlier examination(s), in view of a material new argument or interpretation presented in the request." MPEP § 2242.

Rose presents a substantial new question of patentability for at least two reasons. Rose is cited in this Request in combination with two other references – Bezos and Sheena – neither of which was cited during the original prosecution. The combination of Rose with each of these two new references raises substantial a new question of patentability that was unavailable to the Examiner during the original prosecution. These two combinations render claims 6-7, 9-13 and 16 obvious under § 103(a) as explained beginning at Section VII.I below beginning on page 140.

Second, Rose may be considered as an anticipatory reference by itself under § 102(b) because it is being presented "in a new light" based on "a material new argument or interpretation presented in the request." MPEP § 2242. The detailed explanation provided in Part VII.H below beginning on page 125 and the accompanying claim chart demonstrate that Rose discloses each and every element of claims 1-5, 8, 17, and 20. The Examiner did not have the benefit of these detailed, element-by-element explanations during the original prosecution. For example, the Examiner does not appear to have been aware of or considered Rose's teaching of recommendations originating from a source other than the participant that are "weighted" based on input from the source. For at least these reasons, therefore, Rose can properly be considered in determining whether a substantial new question of patentability exists as to claims 1-13, 16-17, and 20 of the '682 patent.

As noted, Rose anticipates claims 1-5, 8, 17, and 20 (as discussed below in Section VII.H beginning on page 125) and renders claims 6-7, 9-13 and 16 obvious under § 103(a) when combined with Bezos (as discussed beginning at Section VII.I below beginning on page 140) and renders claims 9-10 and 16 obvious under § 103(a) when combined with Sheena (as discussed beginning at Section VII.J beginning on page 143). Rose is not cumulative to any prior art previously considered. Before the Notice of Allowance, the claims were traversed in light of the following amendment: "As amended, Claim 1 recites '... determining an intensity value to be associated with the indication and an intensity weight value, and adjusting the intensity value based on a characteristic for the item provided by the source ....'" Patent Owner's Response received December 4, 2003, p.8.

Because Rose teaches the above technical features, under their broadest reasonable construction, and either anticipates or renders obvious claims 1-13, 16-17 and 20, a reasonable Examiner would consider it important in deciding the patentability of the '682 patent. In particular, Rose discloses a system in which other users can provide an indication of interest for an item, such as a "thumbs-up" or "thumbs-down" indication or a more specific level of interest (*e.g.* high, medium, low, etc.). *See* Rose, Col. 5, lines 32-35, 39-42. The system uses those indications to calculate a "correlation matrix" reflecting the degree of similarity between a pair of users such that a pair of users who have indicated interest in similar items will have a higher correlation measure than a pair of users who have not. *See* Rose, Col. 6, line 67-Col. 7, line 5. When a user accesses the system in Rose, these indications are used in combination with the

correlation measures to predict the likelihood that the individual user will be interested in a given item. *See* Rose, Col. 7, lines 10-33 (discussing algorithm for determining predicted level of interest in a particular document). The system in Rose then presents the user with a ranked list of items in order based on the predicted level of interest. *See* Rose, Col. 9, lines 40-44.

In view of the above, and the detailed application of the prior art against the claims presented below and the attached claim charts, Rose raises an SNQ with respect to claims 1-13, 16-17, and 20 because, in a new and non-cumulative manner: it (a) teaches all features of claims 1-5, 8, 17 and 20 (SNQ No. 9), (b) renders dependent claims 6-7, 9-13 and 16 obvious when combined with Bezos (SNQ No. 10), and (c) renders dependent claims 9-10 and 16 obvious when combined with Sheena (SNQ No. 11). Bezos and Sheena were discussed separately above.

VII. MANNER OF APPLYING PRIOR ART AS REQUIRED BY 37 C.F.R. § 1.915(B)

As required by 37 C.F.R. § 1.915(b)(3), a detailed explanation of the pertinence and manner of applying the prior art references to all claims for which reexamination is requested is set forth below. Claims 1-13, 16-17, and 20 are anticipated under 35 U.S.C. § 102 and/or obvious under 35 U.S.C. § 103 in view of the several different prior art references cited herein, as explained below and in the attached claim charts. (Exhibits CC-A through CC-J).

As explained in more detail in Section IV.B above at page 11, by applying the claim language of the '682 patent as set forth in the explanations provided below and in the attached claim charts, the Requesters are not admitting and/or acquiescing to the correctness and/or reasonableness of any particular construction for the purposes of the Underlying Litigation. Moreover, by mapping claim language to the prior art as set forth below and in the attached claim charts, Requesters are not conceding that any particular language in the claims of the '682 patent is entitled to "patentable weight."

A. CLAIMS 1-13, 16-17, AND 20 ARE ANTICIPATED BY BEZOS UNDER 35 U.S.C. § 102

Requesters respectfully submit that Bezos anticipates claims 1-13, 16-17 and 20 and therefore renders them invalid under 35 U.S.C. § 102(e). A detailed explanation of the pertinence and manner of applying Bezos to claims 1-13, 16-17, and 20 is set forth below and in the attached claim chart (Exhibit CC-A).

Please see attached Claim Chart, Exhibit CC-A, for a comparison of Claims 1-13, 16-17, and 20 of the '682 Patent with Bezos

1. A system for disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, comprising:

Bezos discloses a "Community Interests System" for disseminating to a participant an indication that an item accessible by the participant (e.g., a book or other item for sale) via a network (e.g., the Internet) is of interest to a user. *See* Bezos, Col. 5, lines 33-38 ("The Community Interests system includes four different types of services. The first, referred to herein as 'Community Bestsellers,' involves generating and displaying lists of the bestselling titles within specific communities. Using this feature, users can identify the book titles that are currently the most popular within their own communities and/or other communities.") (emphasis added).

The Community Interests system also includes a feature for identifying "hot selling" items that have recently become popular among users:

> The third service [in Bezos], referred to as "Hotseller Notification," automatically notifies users of titles that have become unusually popular within their respective communities. For example, a user within a particular hiking club might be notified that several other users within his club have recently purchased a new book on local hiking trails.

Bezos, Col. 6, lines 8-13 (emphasis added).

Figure 4 of Bezos, shown below, illustrates an example of an e-mail notifying a participant that a "hot selling" item (such as a book or other item) is of interest:

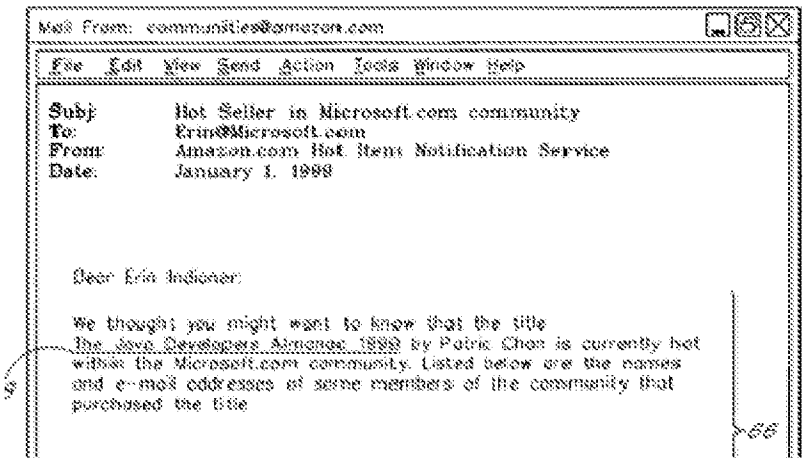


Figure 4 - Bezos

Although Bezos provides an example in which items comprise books, music and other content available for purchase, it emphasizes that it is applicable to any type of item, including downloadable information content, stocks or mutual fund shares. *See* Bezos, Col. 4, lines 44-52 ("It will be recognized, however, that the services and their various features are also applicable to the marketing and sales of other types of items. For example, in other embodiments, the items that are the subject of the services could be cars sold by an online car dealer, movies titles rented by an online video store, computer programs or informational content electronically downloaded to users' computers, or stock and mutual fund shares sold to online investors.").

a computer configured to receive in real time from a source other than the participant an indication that the item is of current interest;

Bezos discloses a computer (e.g., web server 76) configured to receive in real time from a source other than the participant (e.g., one or more other users) an indication that the item is of current interest, giving this claim language its broadest reasonable construction. *See* Bezos, Col. 10, lines 37-47 ("The Web site system includes a Web server 76 which accesses a database 78 of HTML (Hypertext Markup Language) and related content.") (emphasis added).

The indication may take the form, for example, of purchase events for an item that reflect when the item has been purchased, rated, reviewed or accessed by one or more other users:

> Web sites also commonly implement services for collecting and posting subjective and objective information about the product tastes of the online community. For example, the Web site of Amazon.com, the assignee of the present application, provides a service for allowing users to submit ratings (on a scale of 1-5) and textual reviews of individual book, music and video titles.

Bezos, Col. 1, lines 45-51 (emphasis added). Bezos discloses that these indications of interest may be received and processed "in real-time":

> A process which updates the tables in real-time in response to purchase events may alternatively be used. In step 100, the process retrieves the purchase histories of all users that have purchased products within the last N days (e.g., 60 days). Submissions of ratings or reviews may be treated as purchases and thus included in the purchase histories.

Bezos, Col. 12, lines 24-33 (emphasis added). Additionally, Bezos discloses the ability to automatically generate (e.g., in real-time) and display community-based lists of popular items.

See Bezos, Col. 2, lines 36-47 ("[A] service is provided for automatically generating and displaying community-based popular items lists."); *see also* Bezos, Col. 6, lines 8-10 ("The third service, referred to as 'Hotseller Notification,' automatically notifies users of titles that have become unusually popular within their respective communities.").

process the indication;

Bezos discloses processing the indication (e.g., by executing a series of steps that retrieve and process the purchase events to compile a list of the items purchased within a community):

> FIG. 6 illustrates the steps performed by the table generation process 80A to generate the tables 86A, 86B. The process may, for example, be executed once per day at an off-peak time. A process which updates the tables in real-time in response to purchase events may alternatively be used. In step 100, the process retrieves the purchase histories of all users that have purchased products within the last N days (e.g., 60 days). Submissions of ratings or reviews may be treated as purchases and thus included in the purchase histories.

Bezos, Col. 12, lines 24-37 (emphasis added); *see also* Bezos at Col. 12, lines 40-44 ("In step 102, the retrieved purchase histories are processed to build a list of all products that were purchased within the last N days. Preferably, this list includes any products that were purchased solely by global community members, and thus is not limited to base community purchases.") (emphasis added).

determine an intensity value to be associated with the indication and an intensity weight value, and

Bezos discloses "determining an intensity value to be associated with the indication" and "an intensity weight value" (a phrase that does not appear in the specification), giving this claim language its broadest reasonable construction.

The Bezos "**intensity value**" can represent, for example, a numerical value provided by a user in connection with the rating of the item. *See* Bezos, Col. 1, lines 45-51. The Bezos "intensity value" can also be represented by a value that reflects the popularity of the item to which the indication relates. For example, the system in Bezos responds to an indication by calculating how many times that the item has been purchased by other users who are members of a community to which the participant also belongs.

> In step 102 [of Fig. 6], the retrieved purchase histories are processed to build a list of all products that were purchased within the last N days. . .
>
> In step 104, the process uses the data structures obtained from steps 100 and 102 to generate a temporary purchase count array 104A. Each entry in the array 104A contains a product count value which indicates, for a corresponding community: product pair, the number of times the product was purchased by a member of the community in the last N days. For example, the array 104A shown in FIG. 6 indicates that a total of 350 users purchased product "PROD1," and three of those purchases came from base community "BASE_1."

Bezos, Col. 12, lines 40-42, 45-55 (emphasis added).

An "**intensity weight value**" in Bezos, giving the claim language its broadest reasonable construction, can be represented by product purchase "velocity" or "acceleration" values (or the combination of the "velocity" and "acceleration" values) that track the rate at which the item has moved up the bestseller's list over time:

> One preferred method that may be used to identify bestselling or popular titles involves monitoring the "velocity" of each product (the rate at which the product moves up a bestsellers list) or the "acceleration" of each product (the rate at which the velocity is changing, or at which sales of the product are increasing over time). This method tends to surface products that are becoming popular.

Bezos, Col. 5, lines 45-50.

> As indicated by the parenthetical in block 106 [of Fig. 6], product velocity and/or acceleration may be incorporated into the process. The velocity and acceleration values may be calculated, for example, by comparing purchase-count-ordered lists generated from the temporary table 104A to like lists generated over prior time windows. For example, a product's velocity and acceleration could be computed by comparing the product's position within a current purchase-count-ordered list to the position within like lists generated over the last 3 days. The velocity and acceleration values can be used, along with other criteria such as the purchase counts, to score and select the products to be included in the bestseller lists.

Bezos, Col. 13, lines 10-22 (emphasis added).

> **adjusting the intensity value based on a characteristic for the item provided by the source;**

Bezos discloses "adjusting the intensity value based on a characteristic for the item provided by the source," giving this claim language its broadest reasonable construction. In particular, a product rating, review, "click-through" or other characteristic for the item provided by the source can be used in the calculation of the Bezos "intensity value." *See* Bezos, Col. 13, lines 46-51 ("Any of a variety of other types of user activity data could be monitored and incorporated into the FIG. 6 process as a further indication of product popularity. Such data may include, for example, 'click-through' events to product detail pages, 'add to shopping cart' events, and product ratings and reviews submitted by users.") (emphasis added); *see also* Bezos, Col. 12, lines 31-33 ("Submissions of ratings or reviews may be treated as purchases and thus included in the purchase histories.")

and; and [SIC] inform the participant that the item is of current interest; and

Bezos discloses informing the participant that the item is of current interest (e.g., that it is a "hot seller"), giving this claim language its broadest reasonable construction:

> The third service, referred to as "Hotseller Notification," automatically notifies users of titles that have become unusually popular within their respective communities. For example, a user within a particular hiking club might be notified that several other users within his club have recently purchased a new book on local hiking trails.

Bezos, Col. 6, lines 8-13; *see also* Bezos, Col, 10, lines 3-8 ("FIG. 4 illustrates an example of an email document which may be used to notify community members of a hotselling book title. Similar notifications may be provided to users through customized Web pages or other communications methods."). As noted above, Bezos discloses that its techniques apply to items such as "computer programs or informational content electronically downloaded to users' computers" *See e.g.*, Bezos, Col. 4, lines 49-51.

a database, associated with the computer, configured to store data relating to the item.

Bezos discloses a database (e.g., product database) associated with the computer (e.g., web server 76), configured to store data relating to the item (e.g., product). *See e.g.*, Bezos, Col. 10, lines 43-47 ("The Web server 76 accesses service code 80, which in-turn accesses a user database 82, a community database 84, a bibliographic database of product data (not shown), and a database or other repository of community data 86") (emphasis added); *see also* Bezos, Col. 1,

lines 12-16 ("This invention relates to electronic commerce and information filtering. More specifically, this invention relates to information processing methods for assisting online users in identifying and evaluating items from a database of items based on user purchase histories or other historical data.") (emphasis added).

2. A computer program product for disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, the computer program product being embodied in a computer readable medium and comprising computer instructions for:

Claim 2 is substantially similar to claim 1, except that claim 2 is directed to a computer program product whereas claim 1 is directed to a system. As explained above with respect to claim 1, Bezos discloses a system for disseminating to a participant an indication that an item accessible by the participant via a network is of current interest. *See* disclosures for claim 1, above. The system in Bezos also includes a computer program product being embodied in a computer readable medium and comprising computer instructions (*e.g.*, executable "service code 80" and other executable software stored on a server):

> FIG. 5 illustrates a set of Web site system components that may be used to implement the above-described features. . . The Web server 76 accesses service code 80, which in-turn accesses a user database 82, a community database 84, a bibliographic database of product data (not shown), and a database or other repository of community data 86. The various databases are shown separately in FIG. 5 for purposes of illustration, but may in practice be combined within one or more larger database systems. The service code 80 and other executable components may, for example, run on one or more Unix or Windows NT based servers and/or workstations.

Bezos, Col. 10, lines 36-50 (emphasis added).

As explained above in connection with claim 1, Bezos discloses a "Community Interests System" for disseminating to a participant an indication that an item accessible by the participant (e.g., a book or other item for sale) via a network (e.g., the Internet) is of interest to a user. *See* Bezos, Col. 5, lines 33-38 ("The Community Interests system includes four different types of services. The first, referred to herein as 'Community Bestsellers,' involves generating and displaying lists of the bestselling titles within specific communities. Using this feature, users can identify the book titles that are currently the most popular within their own communities and/or other communities.") (emphasis added).

The Community Interests system also includes a feature for identifying "hot selling" items that have recently become popular among users:

> The third service [in Bezos], referred to as "Hotseller Notification," automatically notifies users of titles that have become unusually popular within their respective communities. For example, a user within a particular hiking club might be notified that several other users within his club have recently purchased a new book on local hiking trails.

Bezos, Col. 6, lines 8-13 (emphasis added).

Figure 4 of Bezos, shown below, illustrates an example of an e-mail notifying a participant that a "hot selling" item (such as a book or other item) is of interest:

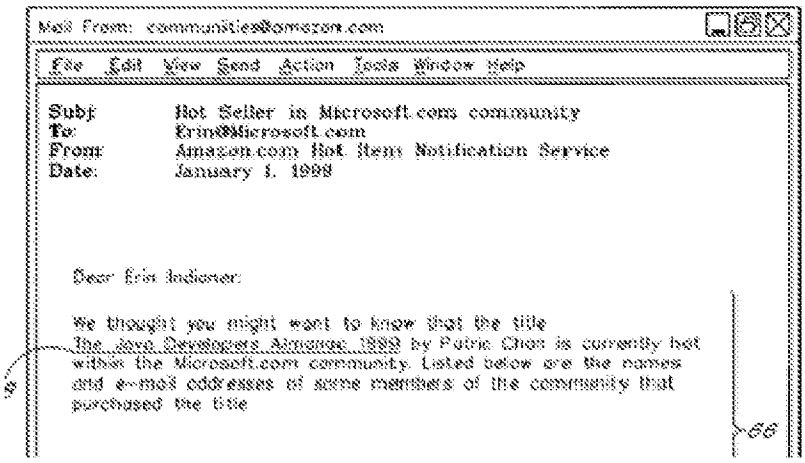


Figure 4 - Bezos

Although Bezos provides an example in which items comprise books, music and other content available for purchase, it emphasizes that any type of item including downloadable information content, stocks or mutual fund shares. *See* Bezos, Col. 4, lines 44-52 ("It will be recognized, however, that the services and their various features are also applicable to the marketing and sales of other types of items. For example, in other embodiments, the items that are the subject of the services could be cars sold by an online car dealer, movies titles rented by an online video store, computer programs or informational content electronically downloaded to users' computers, or stock and mutual fund shares sold to online investors.").

receiving in real time from a source other than the participant an indication that the item is of current interest;

As explained above with respect to claim 1, Bezos discloses receiving in real time from a source other than the participant (e.g., one or more other users) an indication that the item is of current interest, giving this claim language its broadest reasonable construction. The indication may take the form, for example, of purchase events for an item that reflect when the item has been purchased, rated, reviewed or accessed by one or more other users:

> Web sites also commonly implement services for collecting and posting subjective and objective information about the product tastes of the online community. For example, the Web site of Amazon.com, the assignee of the present application, provides a service for allowing users to submit ratings (on a scale of 1-5) and textual reviews of individual book, music and video titles.

Bezos, Col. 1, lines 45-51 (emphasis added). Bezos discloses that these indications of interest may be received and processed "in real-time":

> A process which updates the tables in real-time in response to purchase events may alternatively be used. In step 100, the process retrieves the purchase histories of all users that have purchased products within the last N days (e.g., 60 days). Submissions of ratings or reviews may be treated as purchases and thus included in the purchase histories.

Bezos, Col. 12, lines 24-33 (emphasis added).

Bezos additionally discloses the ability to automatically generate (e.g., in real-time) and display community-based lists of popular items. *See* Bezos, Col. 2, lines 36-47 ("[A] service is provided for automatically generating and displaying community-based popular items lists."); *see also* Bezos, Col. 6, lines 8-10 ("The third service, referred to as 'Hotseller Notification,' automatically notifies users of titles that have become unusually popular within their respective communities.").

processing the indication;

As explained above with respect to claim 1, Bezos discloses processing the indication (e.g., by executing a series of steps that retrieve and process the purchase events to compile a list of the items purchased within a community):

> FIG. 6 illustrates the steps performed by the table generation process 80A to generate the tables 86A, 86B. The process may, for example, be executed once per day at an off-peak time. A process which updates the

> tables in real-time in response to purchase events may alternatively be used. In step 100, the process retrieves the purchase histories of all users that have purchased products within the last N days (e.g., 60 days). Submissions of ratings or reviews may be treated as purchases and thus included in the purchase histories.

Bezos, Col. 12, lines 24-37 (emphasis added); *see also* Bezos at Col. 12, lines 40-44 ("In step 102, the retrieved purchase histories are processed to build a list of all products that were purchased within the last N days. Preferably, this list includes any products that were purchased solely by global community members, and thus is not limited to base community purchases.") (emphasis added).

determining an intensity value to be associated with the indication and an intensity weight value, and

As explained above with respect to claim 1, Bezos discloses "determining an intensity value to be associated with the indication" and "an intensity weight value" (a phrase that does not appear in the specification), giving this claim language its broadest reasonable construction.

The Bezos "**intensity value**" can represent, for example, a numerical value provided by a user in connection with the rating of the item. *See* Bezos, Col. 1, lines 45-51. The Bezos "intensity value" can also be represented by a value that reflects the popularity of the item to which the indication relates. For example, the system in Bezos responds to an indication by calculating how many times the that item has been purchased by other users who are members of a community to which the participant also belongs.

> In step 102 [of Fig. 6], the retrieved purchase histories are processed to build a list of all products that were purchased within the last N days. . .
>
> In step 104, the process uses the data structures obtained from steps 100 and 102 to generate a temporary purchase count array 104A. Each entry in the array 104A contains a product count value which indicates, for a corresponding community: product pair, the number of times the product was purchased by a member of the community in the last N days. For example, the array 104A shown in FIG. 6 indicates that a total of 350 users purchased product "PROD1," and three of those purchases came from base community "BASE_1."

Bezos, Col. 12, lines 40-42, 45-55 (emphasis added).

An "**intensity weight value**" in Bezos, giving the claim language its broadest reasonable construction, can be represented by product purchase "velocity" or "acceleration" values (or the combination of the "velocity" and "acceleration" values) that track the rate at which the item has moved up the bestseller's list over time:

> One preferred method that may be used to identify bestselling or popular titles involves monitoring the "velocity" of each product (the rate at which the product moves up a bestsellers list) or the "acceleration" of each product (the rate at which the velocity is changing, or at which sales of the product are increasing over time). This method tends to surface products that are becoming popular.

Bezos, Col. 5, lines 45-50.

> As indicated by the parenthetical in block 106 [of Fig. 6], product velocity and/or acceleration may be incorporated into the process. The velocity and acceleration values may be calculated, for example, by comparing purchase-count-ordered lists generated from the temporary table 104A to like lists generated over prior time windows. For example, a product's velocity and acceleration could be computed by comparing the product's position within a current purchase-count-ordered list to the position within like lists generated over the last 3 days. The velocity and acceleration values can be used, along with other criteria such as the purchase counts, to score and select the products to be included in the bestseller lists.

Bezos, Col. 13, lines 10-22 (emphasis added).

adjusting the intensity value based on a characteristic for the item provided by the source; and

As explained above with respect to claim 1, Bezos discloses "adjusting the intensity value based on a characteristic for the item provided by the source," giving this claim language its broadest reasonable construction. In particular, a product rating, review, "click-through" or other characteristic for the item provided by the source can be used in the calculation of the Bezos "intensity value." *See* Bezos, Col. 13, lines 46-51 ("Any of a variety of other types of user activity data could be monitored and incorporated into the FIG. 6 process as a further indication of product popularity. Such data may include, for example, 'click-through' events to product detail pages, 'add to shopping cart' events, and product ratings and reviews submitted by users.") (emphasis added); *see also* Bezos, Col. 12, lines 31-33 ("Submissions of ratings or reviews may be treated as purchases and thus included in the purchase histories.").

informing the participant that the item is of current interest.

As explained above with respect to claim 1, Bezos discloses informing the participant that the item is of current interest (e.g., that it is a "hot seller"), giving this claim language its broadest reasonable construction:

> The third service, referred to as "Hotseller Notification," automatically notifies users of titles that have become unusually popular within their respective communities. For example, a user within a particular hiking club might be notified that several other users within his club have recently purchased a new book on local hiking trails.

Bezos, Col. 6, lines 8-13; *see also* Bezos, Col, 10, lines 3-8 ("FIG. 4 illustrates an example of an email document which may be used to notify community members of a hotselling book title. Similar notifications may be provided to users through customized Web pages or other communications methods."). As noted above, Bezos discloses that its techniques apply to items such as "computer programs or informational content electronically downloaded to users' computers" *See e.g.*, Bezos, Col. 4, lines 49-51.

3. A method of disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, comprising:

Claim 3 of the '682 patent is substantially similar to claim 1, except that claim 3 is directed to a method whereas claim 1 is directed to a system. As explained above with respect to Claims 1 and 2 of the '682 patent, Bezos discloses a system for disseminating to a participant an indication (e.g., a notification) that an item accessible by the participant via a network (e.g., the Internet) is of current interest.

As explained above in connection with claim 1, Bezos discloses a "Community Interests System" for disseminating to a participant an indication that an item accessible by the participant (e.g., a book or other item for sale) via a network (e.g., the Internet) is of interest to a user. *See* Bezos, Col. 5, lines 33-38 ("The Community Interests system includes four different types of services. The first, referred to herein as 'Community Bestsellers,' involves generating and displaying lists of the bestselling titles within specific communities. Using this feature, users can identify the book titles that are currently the most popular within their own communities and/or other communities.") (emphasis added).

The Community Interests system also includes a feature for identifying "hot selling" items that have recently become popular among users:

> The third service [in Bezos], referred to as "Hotseller Notification," automatically notifies users of titles that have become unusually popular within their respective communities. For example, a user within a particular hiking club might be notified that several other users within his club have recently purchased a new book on local hiking trails.

Bezos, Col. 6, lines 8-13 (emphasis added).

Figure 4 of Bezos, shown below, illustrates an example of an e-mail notifying a participant that a "hot selling" item (such as a book or other item) is of interest:

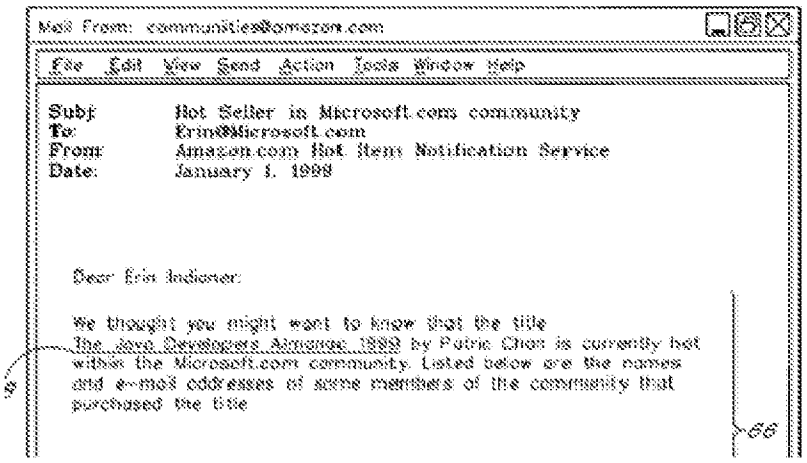


Figure 4 - Bezos

Although Bezos provides an example in which items comprise books, music and other content available for purchase, it emphasizes that it is applicable to any type of item including downloadable information content, stocks or mutual fund shares. *See* Bezos, Col. 4, lines 44-52 ("It will be recognized, however, that the services and their various features are also applicable to the marketing and sales of other types of items. For example, in other embodiments, the items that are the subject of the services could be cars sold by an online car dealer, movies titles rented by an online video store, computer programs or informational content electronically downloaded to users' computers, or stock and mutual fund shares sold to online investors.").

receiving in real time from a source other than the participant an indication that the item is of current interest;

As explained above with respect to claim 1, Bezos discloses receiving in real time from a source other than the participant (e.g., one or more other users) an indication that the item is of current interest, giving this claim language its broadest reasonable construction. The indication may take the form, for example, of purchase events for an item that reflect when the item has been purchased, rated, reviewed or accessed by one or more other users:

> Web sites also commonly implement services for collecting and posting subjective and objective information about the product tastes of the online community. For example, the Web site of Amazon.com, the assignee of the present application, provides a service for allowing users to submit ratings (on a scale of 1-5) and textual reviews of individual book, music and video titles.

Bezos, Col. 1, lines 45-51 (emphasis added). Bezos discloses that these indications of interest may be received and processed "in real-time":

> A process which updates the tables in real-time in response to purchase events may alternatively be used. In step 100, the process retrieves the purchase histories of all users that have purchased products within the last N days (e.g., 60 days). Submissions of ratings or reviews may be treated as purchases and thus included in the purchase histories.

Bezos, Col. 12, lines 24-33 (emphasis added).

Bezos additionally discloses the ability to automatically generate (e.g., in real-time) and display community-based lists of popular items. *See* Bezos, Col. 2, lines 36-47 ("[A] a service is provided for automatically generating and displaying community-based popular items lists."); *see also* Bezos, Col. 6, lines 8-10 ("The third service, referred to as 'Hotseller Notification,' automatically notifies users of titles that have become unusually popular within their respective communities.").

processing the indication;

As explained above with respect to claim 1, Bezos discloses processing the indication (e.g., by executing a series of steps that retrieve and process the purchase events to compile a list of the items purchased within a community):

> FIG. 6 illustrates the steps performed by the table generation process 80A to generate the tables 86A, 86B. The process may, for example, be executed once per day at an off-peak time. A process which updates the

> tables in real-time in response to purchase events may alternatively be used. In step 100, the process retrieves the purchase histories of all users that have purchased products within the last N days (e.g., 60 days). Submissions of ratings or reviews may be treated as purchases and thus included in the purchase histories.

Bezos, Col. 12, lines 24-37 (emphasis added); *see also* Bezos at Col. 12, lines 40-44 ("In step 102, the retrieved purchase histories are processed to build a list of all products that were purchased within the last N days. Preferably, this list includes any products that were purchased solely by global community members, and thus is not limited to base community purchases.") (emphasis added).

determining an intensity value to be associated with the indication and an intensity weight value, and

As explained above with respect to claim 1, Bezos discloses "determining an intensity value to be associated with the indication" and "an intensity weight value" (a phrase that does not appear in the specification), giving this claim language its broadest reasonable construction.

The Bezos "**intensity value**" can represent, for example, a numerical value provided by a user in connection with the rating of the item. *See* Bezos, Col. 1, lines 45-51. The Bezos "intensity value" can also be represented by a value that reflects the popularity of the item to which the indication relates. For example, the system in Bezos responds to an indication by calculating how many times the that item has been purchased by other users who are members of a community to which the participant also belongs.

> In step 102 [of Fig. 6], the retrieved purchase histories are processed to build a list of all products that were purchased within the last N days. . .
>
> In step 104, the process uses the data structures obtained from steps 100 and 102 to generate a temporary purchase count array 104A. Each entry in the array 104A contains a product count value which indicates, for a corresponding community: product pair, the number of times the product was purchased by a member of the community in the last N days. For example, the array 104A shown in FIG. 6 indicates that a total of 350 users purchased product "PROD1," and three of those purchases came from base community "BASE_1."

Bezos, Col. 12, lines 40-42, 45-55 (emphasis added).

An "**intensity weight value**" in Bezos, giving the claim language its broadest reasonable construction, can be represented by product purchase "velocity" or "acceleration" values (or the combination of the "velocity" and "acceleration" values) that track the rate at which the item has moved up the bestseller's list over time:

> One preferred method that may be used to identify bestselling or popular titles involves monitoring the "velocity" of each product (the rate at which the product moves up a bestsellers list) or the "acceleration" of each product (the rate at which the velocity is changing, or at which sales of the product are increasing over time). This method tends to surface products that are becoming popular.

Bezos, Col. 5, lines 45-50.

> As indicated by the parenthetical in block 106 [of Fig. 6], product velocity and/or acceleration may be incorporated into the process. The velocity and acceleration values may be calculated, for example, by comparing purchase-count-ordered lists generated from the temporary table 104A to like lists generated over prior time windows. For example, a product's velocity and acceleration could be computed by comparing the product's position within a current purchase-count-ordered list to the position within like lists generated over the last 3 days. The velocity and acceleration values can be used, along with other criteria such as the purchase counts, to score and select the products to be included in the bestseller lists.

Bezos, Col. 13, lines 10-22 (emphasis added).

> **adjusting the intensity value based on a characteristic for the item provided by the source;**

As explained above with respect to claim 1, Bezos discloses "adjusting the intensity value based on a characteristic for the item provided by the source," giving this claim language its broadest reasonable construction. In particular, a product rating, review, "click-through" or other characteristic for the item provided by the source can be used in the calculation of the Bezos "intensity value." *See* Bezos, Col. 13, lines 46-51 ("Any of a variety of other types of user activity data could be monitored and incorporated into the FIG. 6 process as a further indication of product popularity. Such data may include, for example, 'click-through' events to product detail pages, 'add to shopping cart' events, and product ratings and reviews submitted by users.") (emphasis added); *see also* Bezos, Col. 12, lines 31-33 ("Submissions of ratings or reviews may be treated as purchases and thus included in the purchase histories.")

informing the participant that the item is of current interest.

As explained above with respect to claim 1, Bezos discloses informing the participant that the item is of current interest (e.g., that it is a "hot seller"), giving this claim language its broadest reasonable construction:

> The third service, referred to as "Hotseller Notification," automatically notifies users of titles that have become unusually popular within their respective communities. For example, a user within a particular hiking club might be notified that several other users within his club have recently purchased a new book on local hiking trails.

Bezos, Col. 6, lines 8-13; *see also* Bezos, Col, 10, lines 3-8 ("FIG. 4 illustrates an example of an email document which may be used to notify community members of a hotselling book title. Similar notifications may be provided to users through customized Web pages or other communications methods."). As noted above, Bezos discloses that its techniques apply to items such as "computer programs or informational content electronically downloaded to users' computers" *See e.g.*, Bezos, Col. 4, lines 49-51.

4. The method of claim 3, wherein processing the indication comprises determining the intensity value for the indication based on at least one attribute of the indication, the intensity value representing the weight that will be given to the indication.

As shown above, claim 3 is anticipated by Bezos. Bezos also discloses that processing the indication comprises determining an intensity value to be associated with the indication based on one attribute of the indication, the intensity value representing the weight that will be given to the indication, giving this claim language its broadest reasonable construction.

The attribute of the indication in Bezos can include the type of user action associated with the indication (e.g., whether it was a purchase, review, rating or click-though action). This attribute may be used as a weight used in calculating the popularity for the item. *See* Bezos, Col. 13, lines 46-51 ("Any of a variety of other types of user activity data could be monitored and incorporated into the FIG. 6 process as a further indication of product popularity. Such data may include, for example, 'click-through' events to product detail pages, 'add to shopping cart' events, and product ratings and reviews submitted by users.") (emphasis added).

The attribute of the indication can, alternatively, be based on when the indication was received; *e.g.*, more recent indications can be weighted more heavily than older indications. *See* Bezos, Col. 12, lines 29-39 ("In step 100, the process retrieves the purchase histories of all users that have purchased products within the last N days (e.g., 60 days). Submissions of ratings or reviews may be treated as purchase and thus included in the purchase histories. The variable N specifies the time window to be used both for generating bestseller lists and for identifying hotselling items, and may be selected according to the desired goals of the service.") (emphasis added).

The age and timing of the indication can also affect the purchase velocity and/or acceleration of the item. *See* Bezos, Col. 5, lines 45-50 ("One preferred method that may be used to identify bestselling or popular titles involves monitoring the 'velocity' of each product (the rate at which the product moves up a bestsellers list) or the 'acceleration' of each product (the rate at which the velocity is changing, or at which sales of the product are increasing over time). This method tends to surface products that are becoming popular."). For example:

> As indicated by the parenthetical in block 106 [of Fig. 6], product velocity and/or acceleration may be incorporated into the process. The velocity and acceleration values may be calculated, for example, by comparing purchase-count-ordered lists generated from the temporary table 104A to like lists generated over prior time windows. For example, a product's velocity and acceleration could be computed by comparing the product's position within a current purchase-count-ordered list to the position within like lists generated over the last 3 days. The velocity and acceleration values can be used, along with other criteria such as the purchase counts, to score and select the products to be included in the bestseller lists.

Bezos, Col. 13 , lines 10-22 (emphasis added).

5. The method of claim 4, wherein processing the indication further comprises calculating an intensity rank for the item based at least in part on the intensity value of the indication, the intensity rank indicating the level of current interest of the item relative to other items.

As shown above, claim 4 is anticipated by Bezos. Bezos also discloses that processing the indication further comprises calculating an intensity rank for the item based at least in part on the intensity value of the indication, giving this claim language its broadest reasonable construction. In particular, the "intensity value" associated with the indication in Bezos, which

is reflected in the purchase count data used to create the bestseller lists, is used to rank the level of current interest of the item relative to other items:

> In step 106 [of Fig. 6], the data stored in the array is used to generate the community bestseller lists. This task involves, for each base community and the global community, forming a list of the purchased products, sorting the list according to purchase counts, and then truncating the list to retain only the X (e.g., 100) top selling titles. A longer bestsellers list (e.g., the top selling 10,000 titles) may be generated for the global community, as is desirable for identifying community hotsellers.

Bezos, Col. 13, lines 1-9 (emphasis added). In addition:

> For a given product within a given bestseller list, the score may be calculated as (product's purchase count)/(total purchase count of bestseller list). The lists are then merged while summing scores of like products (step 140), and the resulting list is sorted from highest to lowest score (step 142).

Bezos at Col. 14, lines 25-30 (emphasis added).

6. The method of claim 5, further comprising: associating the item with a category of interest to which the item relates;

As shown above, claim 5 is anticipated by Bezos. Bezos also discloses that the item (e.g., book title or other product) is associated with a category of interest to which the item relates (e.g., a user community). *See* Bezos, Col. 5, lines 1-4 ("The Community Interests services operate generally by tracking purchases of books within particular user communities, and using this information to assist potential customers in locating and evaluating book titles.") (emphasis added); *see also* Bezos, Col. 2, lines 8-11 ("The present invention addresses these and other problems by providing various computer-implemented services for assisting users in identifying and evaluating items that have gained acceptance within particular user communities.") (emphasis added).

receiving from the participant a selection of one or more categories of interest to the participant;

Bezos discloses receiving from the participant a selection of one or more categories of interest to the participant (e.g., one or more user communities to which the user chooses to belong). *See* Bezos, Col. 2, lines 19-23 ("The communities may include explicit membership communities that users can join through a sign-up page. The explicit membership communities

may include, for example, specific universities, outdoors clubs, community groups, and professions."). Figure 1 in Bezos provides an example web page that allows a participant to select one or more user communities to join:

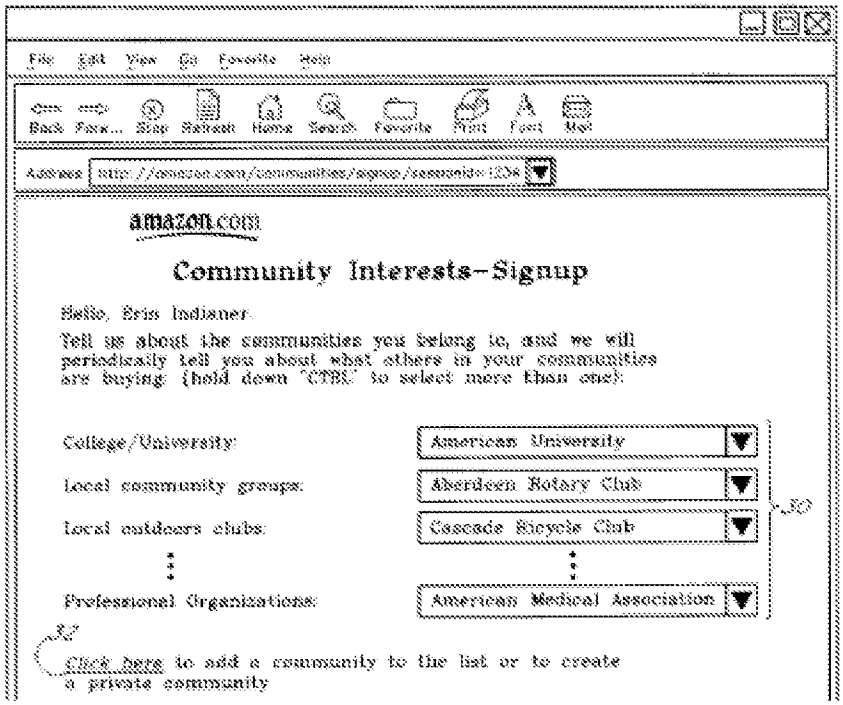


Figure 1 - Bezos

Figure 1 above shows a series of "drop-down" lists 30 for "allowing the user to specify membership in one or more explicit membership communities." Bezos, Col. 6, lines 65-67. As noted, examples of such membership communities include outdoor clubs, organizations and other categories of interest. *See* Bezos, Col. 2, lines 19-23.

identifying all items of current interest within the selected categories;

Bezos discloses identifying all items of current interest within the selected categories (*e.g.*, within the communities selected by the user). In particular, Bezos first discloses identifying all items of interest within all communities. *See* Bezos, Col. 12, lines 40-44. Bezos then focuses on those items of interest that fall within the user-selected categories (e.g., within the communities designated by the user):

> In step 102 [of Fig. 6], the retrieved purchase histories are processed to build a list of all products that were purchased within the last N days. . . In step 104, the process uses the data structures obtained from steps 100 and 102 to generate a temporary purchase count array 104A. Each entry in the

> array 104A contains a product count value which indicates, **for a corresponding community**: product pair, the number of times the product was purchased by a member of the community in the last N days. For example, the array 104A shown in FIG. 6 indicates that a total of 350 users purchased product "PROD1," and three of those purchases came from base community "BASE_1."

Bezos, Col. 12, lines 40-42, 45-55 (emphasis added)

Bezos uses this data to locate all items of interest within the user-selected categories. *See* Bezos, Col. 13, lines 1-2 ("In step 106 [of Fig. 6], the data stored in the array is used to generate the community bestseller lists.") (emphasis added).

ranking the identified items of current interest;

Bezos discloses ranking the identified items of current interest (e.g., by sorting the list of items on the bestseller or hotseller lists). *See* Bezos, Fig. 6 (Box 106) ("For global community and each base community, generate ordered list of X bestselling products."). More specifically:

> In step 106 [of Fig. 6], the data stored in the array is used to generate the community bestseller lists. This task involves, for each base community and the global community, forming a list of the purchased products, sorting the list according to purchase counts, and then truncating the list to retain only the X (e.g., 100) top selling titles. A longer bestsellers list (e.g., the top selling 10,000 titles) may be generated for the global community, as is desirable for identifying community hotsellers.

Bezos, Col. 13, lines 1-9 (emphasis added).

and sending to the participant a list of items of current interest in rank order, the list including at least one of the identified items of current interest;

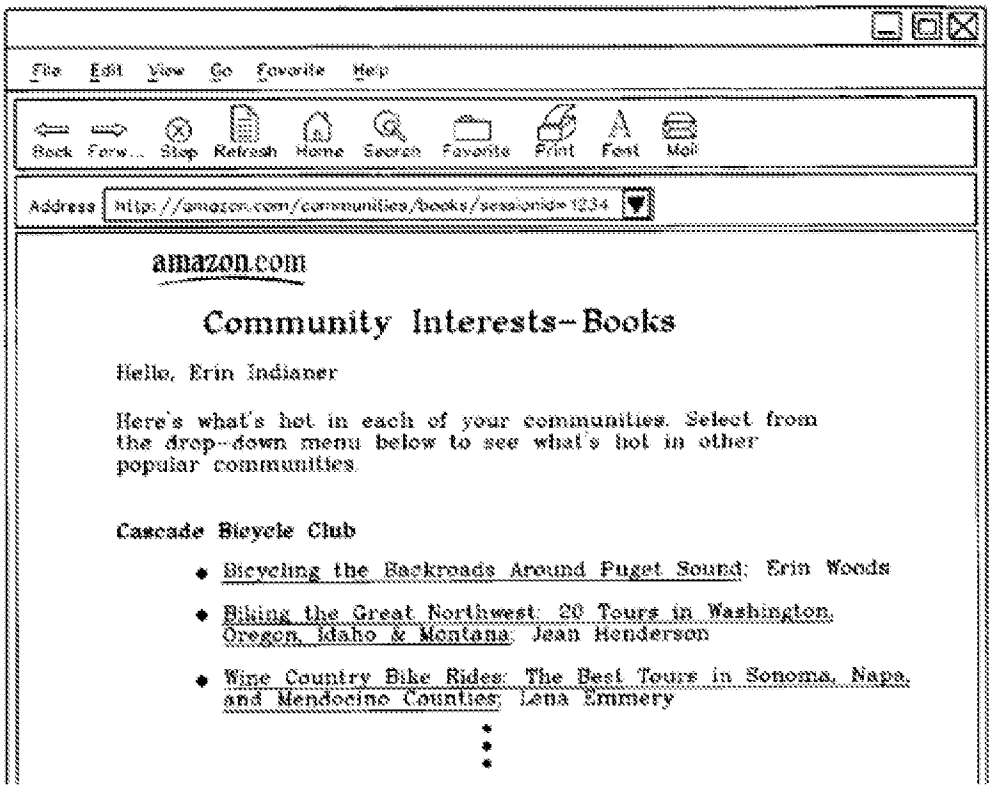
Bezos discloses sending to the participant a list of items of current interest in rank order (e.g., bestseller list sorted based on popularity of the items), the list including at least one of the items (e.g., one of the best-selling items). The list of items disclosed by Bezos is sorted from highest-to-lowest based on a popularity score:

> With reference to FIG. 7B, if the community is not a composite community (as determined in step 134), the community's bestseller list is simply retrieved from the table 86A (step 136). Otherwise, the bestseller lists of all of the composite community's member base communities are retrieved and merged (steps 138-142) to form the bestseller list. As part of the merging process, the product count values could optionally be converted to normalized score values (step 138) so that those communities

> with relatively large sales volumes will not override those with smaller sales volumes. For a given product within a given bestseller list, the score may be calculated as (product's purchase count)/(total purchase count of bestseller list). The lists are then merged while summing scores of like products (step 140), and the resulting list is sorted from highest to lowest score (step 142).

Bezos, Col. 14, lines 15-30 (emphasis added).

The ordered list can then be presented to the user. An example of such a list is provided in Figure 2, reproduced in relevant part below, which shows hot selling items within the categories of interest (e.g., user communities) selected by the user:



Bezos – Figure 2

See also Bezos, Col. 13, lines 52-55 ("FIGS. 7A and 7B illustrate the steps that are performed by the community bestseller processing code 80B to generate personalized community bestseller pages of the type shown in FIG. 2").

> **wherein the ranking of each item is based, at least in part, on the level of current interest of each item relative to other items as indicated at least in part by the intensity rank.**

Bezos discloses that the ranking of each item is based, at least in part, on the level of current interest of each item relative to other items as indicated at least in part by the intensity rank, giving this claim language its broadest reasonable construction. For example, each item is placed in an ordered list based on its intensity rank, with the higher scoring items appearing before lower scoring items to reflect differences in the current level of interest. *See e.g.*, Bezos, Figure 6 (Box 106) ("For global community and each base community, generate ordered list of X bestselling products."); *see also* Bezos, Col. 14, lines 15-30 ("The lists are then merged while summing scores of like products (step 140), and the resulting list is sorted from highest to lowest score (step 142).") (emphasis added)

> In step 106 [of Fig. 6], the data stored in the array is used to generate the community bestseller lists. This task involves, for each base community and the global community, forming a list of the purchased products, sorting the list according to purchase counts, and then truncating the list to retain only the X (e.g., 100) top selling titles. A longer bestsellers list (e.g., the top selling 10,000 titles) may be generated for the global community, as is desirable for identifying community hotsellers.

Bezos, Col. 13, lines 1-9 (emphasis added).

7. The method of claim 3, further comprising receiving a comment relating to the item.

As shown above, claim 3 is anticipated by Bezos. Bezos also discloses receiving a comment relating to the item (e.g., receiving a textual review about the book or other product):

> Web sites also commonly implement services for collecting and posting subjective and objective information about the product tastes of the online community. For example, the Web site of Amazon.com, the assignee of the present application, provides a service for allowing users to submit ratings (on a scale of 1-5) and textual reviews of individual book, music and video titles.

Bezos, Col. 1, lines 45-51 (emphasis added); *see also* Bezos at Col. 6, lines 17-21 ("The popularities of the titles are preferably based at least in-part on numbers of units sold, but may additionally or alternatively be based [sic] other types of criteria such as user viewing activities or user submissions of reviews and ratings.") (emphasis added).

8. The method of claim 3, further comprising receiving data identifying the source of the indication.

As shown above, claim 3 is anticipated by Bezos. Bezos also discloses the step of receiving data identifying the source of the indication (e.g., data identifying other user(s) who have purchased the item). This is shown in Figure 4 below, which shows a contact information list 70 that includes data identifying the source of the indication (such as the names and e-mail addresses of the other users who have purchased the item):

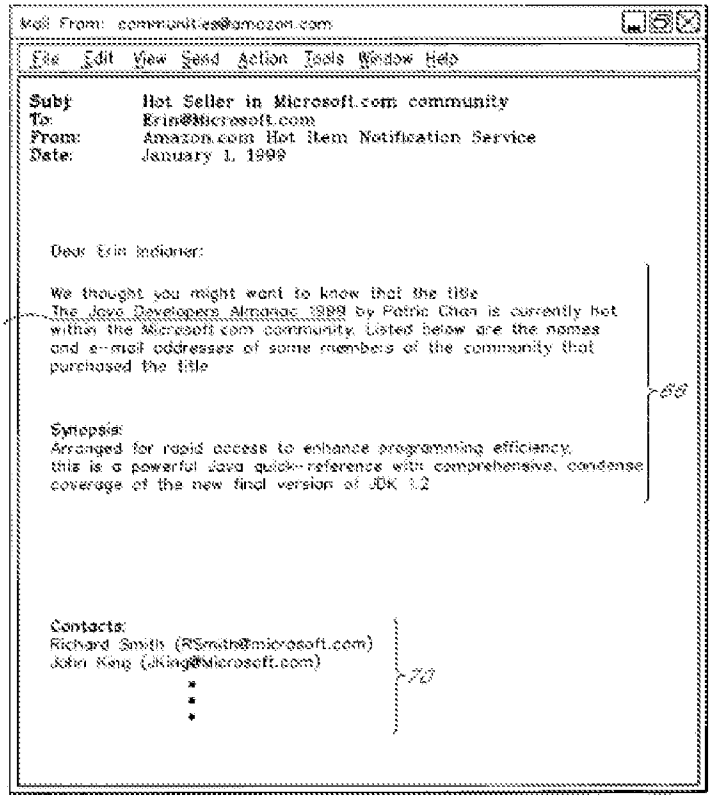


Figure 4 – Bezos

> In the illustrated example [of Fig. 4 above], the email document includes a textual description 66 which, among other things, includes a synopsis of the book title and informs the user of the level of acceptance the title has attained within the community. The description also includes a hypertextual link 68 to the title's detail page on the site. In addition, if the recipient user participates in the Contact Information Exchange program, the email document preferably includes a listing 70 of the contact information of other community members that have purchased the book.

Bezos, Col. 10, lines 11-20 (emphasis added).

The fact that the system of Bezos can show the e-mail addresses and other contact information of users who have purchased an item necessarily means that the system is "receiving data identifying the source of the indication" as recited in claim 8.

9. The method of claim 3, further comprising associating the item with a category of interest to which the item relates.

As shown above, claim 3 is anticipated by Bezos. Bezos also discloses that the item (e.g., book or other product or content) is associated with a category of interest to which the item relates (e.g., a user community). *See* Bezos, Col. 5, lines 1-4 ("The Community Interests services operate generally by tracking purchases of books within particular user communities, and using this information to assist potential customers in locating and evaluating book titles.") (emphasis added); *see also* Bezos, Col. 2, lines 8-11 ("The present invention addresses these and other problems by providing various computer-implemented services for assisting users in identifying and evaluating items that have gained acceptance within particular user communities.") (emphasis added).

10. The method of claim 9, wherein the item is associated with a category of interest identified by the source of the indication of current interest.

As shown above, claim 9 is anticipated by Bezos. Bezos also discloses the item is associated with a category of interest identified by the source of the indication of current interest. More specifically, the system in Bezos allows each user to select particular user communities to which the user chooses to belong, which comprise categories of interest such as recreational clubs and community groups. *See* Bezos, Col. 2, lines 19-23 ("The communities may include explicit membership communities that users can join through a sign-up page. The explicit membership communities may include, for example, specific universities, outdoors clubs, community groups, and professions.") (emphasis added). Figure 1 in Bezos provides an example web page that allows users to make this selection:

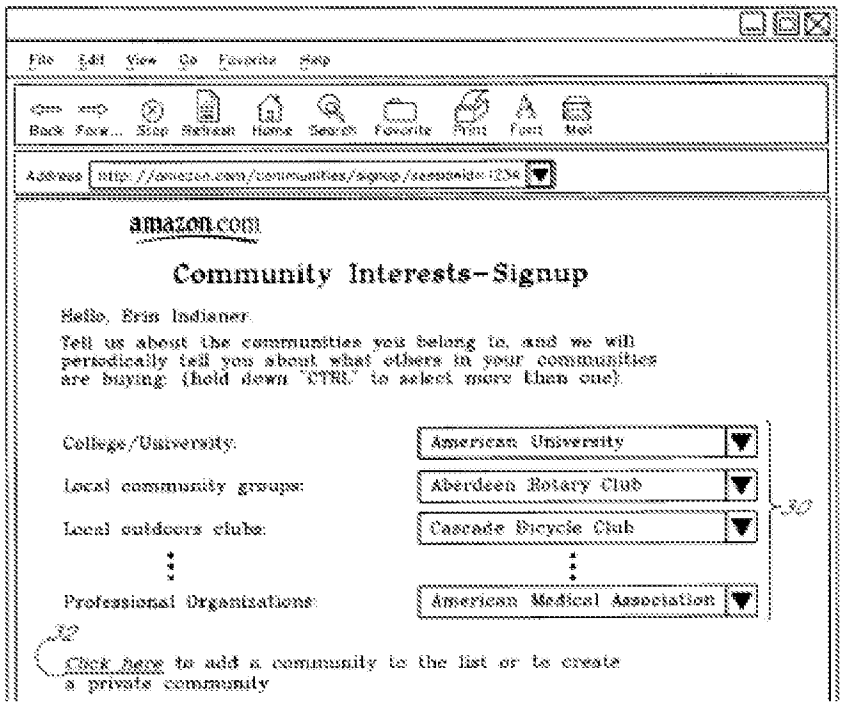


Figure 1 - Bezos

Figure 1 above shows a series of "drop-down" lists 30 for "allowing the user to specify membership in one or more explicit membership communities." Bezos, Col. 6, lines 65-67. As noted, examples of such membership communities include outdoor clubs, organizations and other categories of interest. *See* Bezos, Col. 2, lines 19-23.

11. The method of claim 3, wherein the item is one of a plurality of items of current interest, further comprising:

As shown above, claim 3 is anticipated by Bezos. Bezos discloses the item is one of a plurality of items of current interest. *See e.g.*, Bezos, Col. 5, lines 33-39 ("The Community Interests system includes four different types of services. The first, referred to herein as 'Community Bestsellers,' involves generating and displaying lists of the bestselling titles within specific communities. Using this feature, users can identify the book titles that are currently the most popular within their own communities and/or other communities.") (emphasis added).

associating the item with a category of interest to which the item relates;

Bezos discloses that the item (e.g., book title or other product) is associated with a category of interest to which the item relates (e.g., a user community). *See* Bezos, Col. 5, lines 1-4 ("The Community Interests services operate generally by tracking purchases of books within particular user communities, and using this information to assist potential customers in locating

and evaluating book titles.") (emphasis added); *see also* Bezos, Col. 2, lines 8-11 ("The present invention addresses these and other problems by providing various computer-implemented services for assisting users in identifying and evaluating items that have gained acceptance within particular user communities.") (emphasis added); *see also* disclosures for Claim 9, above.

receiving from the participant a selection of one or more categories of interest to the participant; and

Bezos discloses receiving from the participant a selection of one or more categories of interest to the participant (e.g., one or more user communities to which the user chooses to belong). More specifically, the system in Bezos allows each user to select particular user communities to which the user chooses to belong, which comprise categories of interest such as recreational clubs and community groups. *See* Bezos, Col. 2, lines 19-23 ("The communities may include explicit membership communities that users can join through a sign-up page. The explicit membership communities may include, for example, specific universities, outdoors clubs, community groups, and professions.") (emphasis added). Figure 1 in Bezos provides an example web page that allows a participant to select one or more user communities to join:

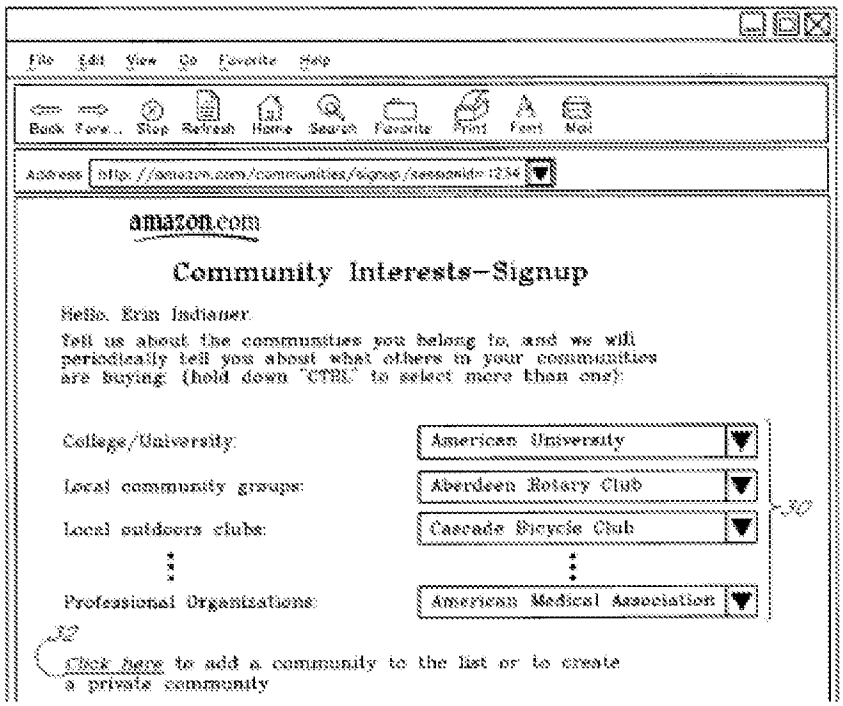


Figure 1 - Bezos

Figure 1 above shows a series of "drop-down" lists 30 for "allowing the user to specify membership in one or more explicit membership communities." Bezos, Col. 6, lines 65-67. As

noted, examples of such membership communities include outdoor clubs, organizations and other categories of interest. *See* Bezos, Col. 2, lines 19-23.

identifying all items of current interest within the selected categories.

Bezos discloses identifying all items of current interest within the selected categories (*e.g.*, within the communities selected by the user). In particular, Bezos first discloses identifying all items of interest within all communities. *See* Bezos, Col, 12, lines 40-44. Bezos then focuses on those items of interest that fall within the user-selected categories (e.g., within the base communities designated by the user):

> In step 102 [of Fig. 6], the retrieved purchase histories are processed to build a list of all products that were purchased within the last N days. . . In step 104, the process uses the data structures obtained from steps 100 and 102 to generate a temporary purchase count array 104A. Each entry in the array 104A contains a product count value which indicates, **for a corresponding community**: product pair, the number of times the product was purchased by a member of the community in the last N days. For example, the array 104A shown in FIG. 6 indicates that a total of 350 users purchased product "PROD1," and three of those purchases came from base community "BASE_1."

Bezos, Col. 12, lines 40-42, 45-55 (emphasis added)

Bezos uses this data to locate all items of interest within the user-selected categories. *See* Bezos, Col. 13, lines 1-2 ("In step 106 [of Fig. 6], the data stored in the array is used to generate the community bestseller lists.") (emphasis added).

12. The method of claim 11, further comprising: ranking the identified items of current interest; and

As explained above, claim 11 is anticipated by Bezos. Bezos also discloses ranking the identified items of current interest (e.g., by sorting the list of items on the bestseller or hotseller lists). *See* Bezos, Fig. 6 (Box 106) ("For global community and each base community, generate ordered list of X bestselling products."). More specifically:

> In step 106 [of Fig. 6], the data stored in the array is used to generate the community bestseller lists. This task involves, for each base community and the global community, forming a list of the purchased products, sorting the list according to purchase counts, and then truncating the list to retain only the X (e.g., 100) top selling titles. A longer bestsellers list (e.g., the top selling 10,000 titles) may be generated for the global community, as is desirable for identifying community hotsellers.

Bezos, Col. 13, lines 1-9 (emphasis added).

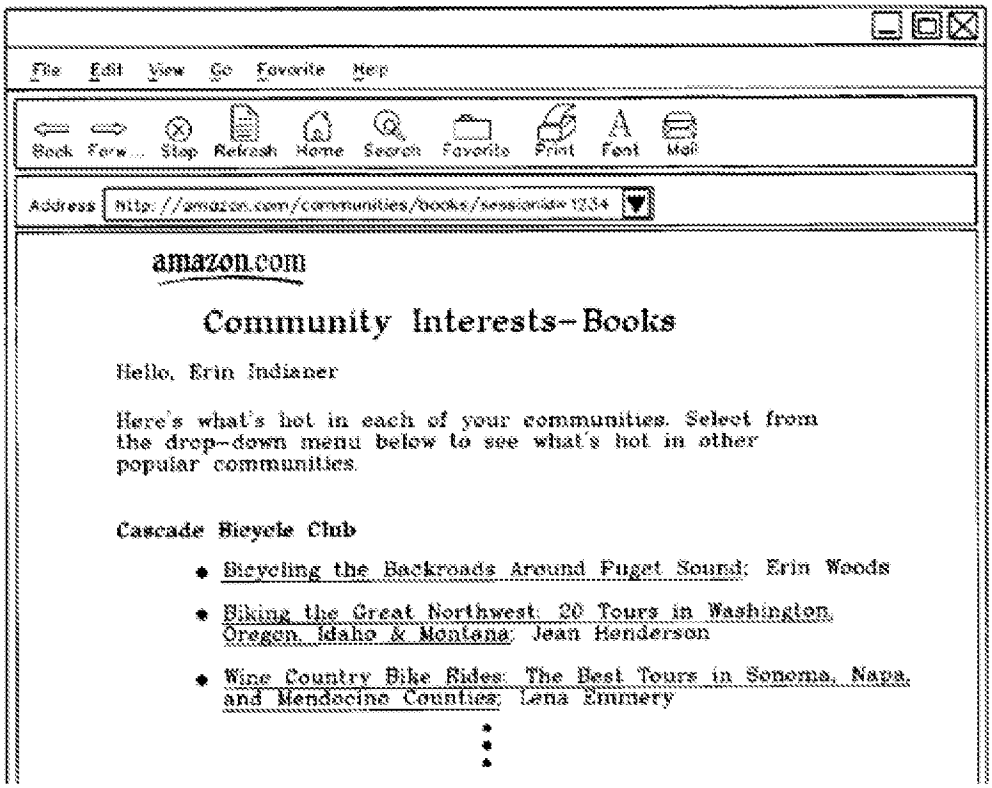
sending to the participant a list of items of current interest in rank order, the list including at least one of the identified items of current interest.

Bezos discloses sending to the participant a list of items of current interest in rank order (e.g., bestseller list sorted based on popularity of the items), the list including at least one of the items (e.g., one of the best-selling items). *See* Bezos, Col. 13, lines 52-55 ("FIGS. 7A and 7B illustrate the steps that are performed by the community bestseller processing code 80B to generate personalized community bestseller pages of the type shown in FIG. 2") (emphasis added). The list of items disclosed by Bezos is sorted from highest-to-lowest based on a popularity score:

> With reference to FIG. 7B, if the community is not a composite community (as determined in step 134), the community's bestseller list is simply retrieved from the table 86A (step 136). Otherwise, the bestseller lists of all of the composite community's member base communities are retrieved and merged (steps 138-142) to form the bestseller list. As part of the merging process, the product count values could optionally be converted to normalized score values (step 138) so that those communities with relatively large sales volumes will not override those with smaller sales volumes. For a given product within a given bestseller list, the score may be calculated as (product's purchase count)/(total purchase count of bestseller list). The lists are then merged while summing scores of like products (step 140), and the resulting list is sorted from highest to lowest score (step 142).

Bezos, Col. 14, lines 15-30 (emphasis added).

The ordered list can then be presented to the user. An example of such a list is provided in Figure 2, reproduced in relevant part below, which shows hot selling items within the communities selected by the user:



Bezos – Figure 2

13. The method of claim 12, wherein the ranking of each item is based, at least in part, on the extent to which the categories selected by the participant match the categories associated with the item.

As shown above, claim 12 is anticipated by Bezos. Bezos further discloses that the ranking of each item (recited in claim 12) is based, at least in part, on the extent to which the categories selected by the participant (*e.g.*, the "base communities" with which the user has chosen to affiliate) match the categories (*e.g.*, communities) associated with the item.

Bezos generates an ordered/ranked list of items of interest corresponding to each of the user's selected base communities. *See* Bezos, Fig. 6 (Box 106) ("For global community and each base community, generate ordered list of X bestselling products."). More specifically:

> In step 106 [of Fig. 6], the data stored in the array is used to generate the community bestseller lists. This task involves, *for each base community* and the global community, forming a list of the purchased products, sorting the list according to purchase counts, and then truncating the list to retain only the X (e.g., 100) top selling titles. A longer bestsellers list (e.g.,

> the top selling 10,000 titles) may be generated for the global community, as is desirable for identifying community hotsellers.

Bezos, Col. 13, lines 1-9 (emphasis added).

The list of products is then ranked and ordered based on the resulting scores. *See* Bezos, Col. 14, lines 15-30 ("The lists are then merged while summing scores of like products (step 140), and the resulting list is sorted from highest to lowest score (step 142).") (emphasis added). Because the list of items is organized on a per-community basis in accordance with the user's selected communities, the ranking of each item is based, at least in part, "on the extent to which the categories selected by the participant match the categories associated with the item."

16. The method of claim 3, wherein the item is identified by a Uniform Resource Locator (URL).

As shown above, claim 3 is anticipated by Bezos. Bezos further discloses that the item is identified by a Uniform Resource Locator (URL) (e.g., a hypertext link 68). *See* Bezos, Col. 10, lines 11-16 ("In the illustrated example [of Fig. 4], the email document includes a textual description 66 which, among other things, includes a synopsis of the book title and informs the user of the level of acceptance the title has attained within the community. The description also includes a hypertextual link 68 to the title's detail page on the site.") (emphasis added). *See also* Figure 4, Bezos, shown below, which depicts a URL (hypertext link 68) that identifies an item:

Figure 4 – Bezos

17. The method of claim 3, further comprising storing data relating to the indication in a database.

As shown above, claim 3 is anticipated by Bezos. Bezos further discloses the storage of data relating to the indication (e.g., the purchase event by another other user) in a database:

> The Web server 76 accesses service code 80, which in-turn accesses a user database 82, a community database 84, a bibliographic database of product data (not shown), and a database or other repository of community data 86. The various databases are shown separately in FIG. 5 for purposes of illustration, but may in practice be combined within one or more larger database systems.

Bezos, Col. 10, lines 43-50 (emphasis added).

Bezos discloses that "community data 86" in the database stores the product count values relating to the indication (which are used to generate the hotseller notifications):

> The community data 86 includes a 'community bestseller lists' table 86A which contains, for the global community and each base community, a listing of the currently best-selling book titles. In some implementations, the listing for the global community is omitted. In the illustrated embodiment, each entry 88 in each bestseller list includes: (a) the product ID (ProdID) of a book title, and (b) a count value which represents, for a given time window, the number of copies purchased by members of the community… As described below, the community bestseller lists table 86A is used both for the generation of bestseller lists and the generation of hotseller notifications.

Bezos, Col. 10, lines 52-67 (emphasis added).

20. The method of claim 3, further comprising providing one or more participants with an interface to send an indication that an item is of current interest.

As shown above, claim 3 is anticipated by Bezos. Furthermore, Bezos discloses providing one or more participants with an interface (e.g., a Web page) to send an indication that an item is of current interest:

> Web sites also commonly implement services for collecting and posting subjective and objective information about the product tastes of the online community. For example, the Web site of Amazon.com, the assignee of the present application, provides a service for allowing users to submit ratings (on a scale of 1-5) and textual reviews of individual book, music and video titles.

Bezos, Col. 1, lines 45-51 (emphasis added).

B. CLAIMS 1-13, 16-17, AND 20 ARE INVALID BASED ON SPIEGEL UNDER 35 U.S.C. § 102 AND § 103

Requesters respectfully submit that the disclosures of Spiegel and Bezos render claims 1-13, 16-17 and 20 of the '682 patent invalid under two alternative theories:

(1) Claims 1-13, 16-17 and 20 are ***anticipated*** by Spiegel (which incorporates the disclosures of Bezos) under 35 U.S.C. § 102(e); and

(2) Claims 1-13, 16-17 and 20 are ***obvious*** over Bezos in view of Spiegel under 35 U.S.C. § 103(a).

A detailed explanation of the pertinence and manner of applying Bezos to claims 1-13, 16-17, and 20 is set forth below and in the attached claim chart (Exhibit CC-B).

Please see attached Claim Chart, Exhibit CC-B, for a comparison of Claims 1-13, 16-17, and 20 of the '682 Patent With Spiegel and Bezos

Both the anticipation and obviousness theories based on Spiegel are presented, respectively, below.

1. CLAIMS 1-13, 16-17, AND 20 ARE ANTICIPATED BY SPIEGEL

Spiegel discloses a system for identifying and notifying users of popular items within an on-line system. Spiegel is closely related to the system disclosed in Bezos; both patents purport to describe aspects of Amazon.com (the assignee of both patents) and Spiegel explicitly incorporates by reference the disclosures of Bezos. *See* Spiegel, Col. 10, lines 52-58.[3] Spiegel and Bezos are therefore treated as a single prior art reference for purposes of anticipation under § 102 as authorized by the MPEP:

> Instead of repeating some information contained in another document, an application may attempt to incorporate the content of another document or part thereof by reference to the document in the text of the specification. The information incorporated is as much a part of the application as filed as if the text was repeated in the application, and should be treated as part of the text of the application as filed.

[3] Spiegel specifically incorporates by reference the disclosures of the Bezos provisional application, U.S. Provisional Application No. 60/128,557, filed April 9, 1999, not the issued Bezos patent. *See* Spiegel, Col. 10, lines 52-58. This distinction is of no significance because, as explained in Section V.A above, the disclosures of the issued Bezos patent were also disclosed in the earlier-filed provisional application.

MPEP § 2163.07(b) (emphasis added).

Spiegel, like Bezos, discloses a system for recommending popular items to a user based on the activities of other users. Spiegel Col, 1, lines 60-66, col. 2, lines 46-67. Because Spiegel incorporates by reference the entirety of Bezos, the element-by-element comparison of Bezos set forth above need not be repeated here.

Spiegel is cited in this Request because it provides an alternative technique (in addition to the one disclosed in Bezos) for determining and adjusting the "intensity value" associated with indications by other users, such as purchases. This alternative technique also anticipates, under the broadest reasonable construction, the requirement recited in all independent claims of determining "**an intensity value to be associated with the indication**," and "**adjusting the intensity value based on a characteristic for the item provided by the source**." All other elements of claims 1-13, 16-17, and 20 are fully disclosed in by the incorporated Bezos reference as explained above.

Spiegel discloses that when another user purchases an item, searches for it, adds the item to the user's shopping cart or provides a rating, the system in Spiegel determines an "intensity value to be associated with the indication" (under the broadest reasonable construction of that term). The value can take the form, for example, of a number used to increment a count value associated with the item to which the indication relates:

> As illustrated in FIG. 7, to generate the collective user history scores, first, the book category count for each type of user activity is initialized to zero (block 705). . .
>
> Next, for each book purchased by the user, the "Purchase" count is incremented for each book category in which the book falls (block 725). For each book category the user "clicked-through," the "Click-Through" count is incremented (block 730). For each book category in which the user has performed a search, the "Search" count is incremented (block 735). For each book that the user rated, the "Rating" count is incremented for each book category in which the book falls (block 740). For each book placed in the shopping cart, the "Shopping Cart" count is incremented (block 745) for each book category in which the book falls. In other embodiments, the process could also account for other user activity, or could use only a subset of the types of activity listed in FIG. 7.

Spiegel, Col. 14, lines 14-16, 27-40.

The determined "**intensity value to be associated with the indication**" in Spiegel, therefore, can comprise the numerical value associated with the individual action taken by the user that is used to increment the history count for the item.

Spiegel also discloses the element of "**adjusting the intensity value based on a characteristic for the item provided by the source**" (under its broadest reasonable construction). Spiegel explains that when a user purchases an item, searches for it, adds the item to its shopping cart or provides a rating, the Spiegel "intensity value" associated with that indication is adjusted in accordance with how significant the action is within the system. "For example, actual purchases are preferably given more weight than merely placing an item in a shopping cart." Spiegel, Col. 13, lines 42-43. An example is provided in Table 7, which shows some actions (such as "Purchase") being given greater numerical significance than other actions:

TABLE 7

Purchase	10
Click-through	1
Search	3
Rating	8
Shopping Cart	7

Table 7 – Spiegel

These numbers are used as multipliers to adjust the value given to the indication of interest – thus affecting whether the item will be recommended to the user. This adjustment is shown in Table 8, which shows the calculation of scores for categories of items:

TABLE 8

Book Category	Purchase (10)		Click-Through (1)		Search (3)		Rating (8)		Shopping Cart (7)		Weighted Scores
Air Sports & Recreation	(564 * 10)	+	(616 * 1)	+	(1055 * 3)	+	(61 * 8)	+	(57 * 7)	=	16009
Audiobooks	(2016 * 10)	+	(8465 * 1)	+	(2461 * 3)	+	(248 * 8)	+	(189 * 7)	=	39315
Automotive	(5354 * 10)	+	(7715 * 1)	+	(3403 * 3)	+	(1127 * 8)	+	(2092 * 7)	=	95124
. . .											
Reference	(715 * 10)	+	(946 * 1)	+	(1035 * 3)	+	(183 * 8)	+	(247 * 7)	=	14394
Scuba	(226 * 10)	+	(546 * 1)	+	(887 * 3)	+	(311 * 8)	+	(302 * 7)	=	10069
Swimming	(3452 * 10)	+	(4652 * 1)	+	(4512 * 3)	+	(415 * 8)	+	(521 * 7)	=	59675
Yoga	(1530 * 10)	+	(765 * 1)	+	(996 * 3)	+	(534 * 8)	+	(454 * 7)	=	26503

Table 8 – Spiegel

Spiegel therefore discloses the element of "**adjusting the intensity value based on a characteristic for the item provided by the source**" under the broadest reasonable construction. Spiegel further discloses that this calculation "may be extended to generate individual and/or user history scores for specific items of the catalog." Spiegel, Col. 15, lines 48-50. Popular items may be presented to the user in ranked order so items with the highest scores appear at the top of the list. *See* Spiegel Table 3, Col. 9, lines 17-18.

Because Spiegel fully discloses the element of determining "an intensity value to be associated with the indication," and "adjusting the intensity value based on a characteristic for the item provided by the source" in claims 1, 2, and 3, and the incorporated-by-reference disclosures of Bezos disclose every other element of claims 1-13, 16-17, and 20, Spiegel anticipates these claims under 35 U.S.C. § 102(e).

2. CLAIMS 1-13, 16-17, AND 20 ARE OBVIOUS OVER BEZOS IN VIEW OF SPIEGEL

As an alternative theory, claims 1-13, 16-17 and 20 are also obvious over Bezos in view of Spiegel for the same reasons discussed above. Bezos discloses each and every element of these claims as explained in Section VII.A above beginning at page 31. Spiegel provides an alternative technique for determining "an intensity value to be associated with the indication," and "adjusting the intensity value based on a characteristic for the item provided by the source," as recited in claims 1, 2, and 3. As explained above, the "**intensity value**" in Spiegel can

comprise a numerical value associated with the individual action taken by the user that is used to increment the history count. *See* Spiegel, Col. 14, lines 14-16, 27-40. Spiegel also discloses the element of "**adjusting the intensity value based on a characteristic for the item provided by the source**" (under its broadest reasonable construction) by using a multiplier to adjust the value given to the indication. *See* Spiegel, Table 7, and 8.

It would have been obvious to one of ordinary skill in the art to enhance the system of Bezos by adding the Spiegel "intensity value" determination and adjustment as described above. This enhancement have entailed the simple addition of the numerical count and multiplier system of Spiegel to the recommendation system of Bezos, predictably resulting in a system in which the Bezos "intensity value" is applied to a numerical multiplier and adjusted based on a characteristic for the item provided by the source. A skilled artisan would have ample motivation to combine, as Bezos and Spiegel both describe aspects of the same Amazon.com on-line system. The motivation to combine Bezos with Spiegel is expressly stated in the Spiegel reference itself, which incorporates Bezos by reference, and points to Bezos as an example of "methods which may be used to track user activity on a community-by-community basis…." Spiegel, Col. 10, lines 52-58. Claims 1-13, 16-17 and 20 are therefore obvious under 35 U.S.C. § 103(a) over Bezos in view of Spiegel.

C. CLAIMS 1-13, 16-17, AND 20 ARE OBVIOUS OVER BEZOS IN VIEW OF MEUNIER UNDER 35 U.S.C. § 103

Requesters respectfully submit that Spiegel in view of Meunier renders obvious claims 1-13, 16-17, and 20 under 35 U.S.C. § 103(a). A detailed explanation of the pertinence and manner of applying this combination to these claims is set forth below and in the attached claim chart (Exhibit CC-C).

Please see attached Claim Chart, Exhibit CC-C, for a comparison of Claims 1-13, 16-17, and 20 of the '682 Patent with Bezos in View of Meunier

Bezos anticipates claims 1-13, 16-17 and 20 under 35 U.S.C. § 102(e) for the reasons explained in Section VII.A above beginning on page 31. As an additional and alternative theory of invalidity, Requesters respectfully submit that these claims are also obvious over Bezos in view of Meunier under 35 U.S.C. § 103(a).

The system in Bezos identifies items that are of interest to the user, *e.g.*, hot selling books or other products, and recommends those items to users. *See, e.g.*, Bezos, Col. 5, lines 55-58 ("Velocity and acceleration may be used to generate bestseller lists and to identify 'hot' products to proactively recommend to users…"). It would have been obvious to one of ordinary skill in the art to adapt the system of Bezos to handle an "**item of current interest**" comprising a piece of dynamic content that is constantly-changing.

Meunier discloses a system for recommending items of current interest to users by detecting changes to existing documents and notifying users about those changes. Meunier explains that "[t]he ever-increasing universe of electronic information, for example as found on the World Wide Web (herein after referred to as the Web), competes for the effectively fixed and limited attention of people. Both consumers and producers of information want to understand what kinds of information are available, how desirable it is, and how its content and use change through time." Meunier, Col. 1, lines 13-19 (emphasis added). Meunier claims that one of the failings of existing recommender systems is that "they provide static recommendations of potentially dynamic objects." Meunier, Col. 1, lines 65-67. Meunier explains that "[c]hanges to documents are also of interest to users. Such changes can take many forms: substantive content

change, cosmetic/syntactic changes, and disappearance of the document." Meunier, Col. 2, lines 1-4.

Meunier purports to overcome these failings by providing a system that identifies items of current interest by detecting changes to existing documents. *See* Meunier, Col. 5, lines 16-18 ("A document change monitoring agent provides a means to track changes in online documents and to notify interested people about the change."). Meunier couples this document change system to a recommender system so users can be notified whenever recommended documents have changed, and therefore, have become of current interest. *See* Meunier, Col. 4, lines 47-50 ("By coupling the document change monitoring agent with a recommender system, users who have recommended items which have since changed can be notified of that change, if they so desire."). Meunier further explains that:

> The method of the present invention solves the problems cited above in the following ways: Dynamic documents (i.e. subject to changes) are handled gracefully; users are given the possibility to review collaboratively the detected changes and to modify their recommendation accordingly. Importance of changes is collaboratively evaluated in the frame of the recommender system.

Meunier, Col. 7, lines 32-41.

It would have been obvious to one of ordinary skill in the art to enhance the system of Bezos by adding the document change monitoring system of Meunier. This would have entailed a simple addition of the document change monitoring feature of Meunier to the recommendation system of Bezos, predictably resulting in a system in which items of current interest could be dynamic documents subject to constant change. Explicit motivations to combine are also provided throughout Meunier, including through the detailed explanation on how to add the capability to detect document changes to existing recommender systems. *See* Meunier, Col. 6, line 44-Col. 7, line 16. A skilled artisan would have had ample motivation to combine, as Meunier explains that this combination provides several advantages including that "[d]ynamic documents (i.e. subject to changes) are handled gracefully," and that the importance of changes "is collaboratively evaluated in the frame of the recommender system." Meunier, Col. 7, lines 32-41. Claims 1-13, 16-17 and 20 are therefore obvious under 35 U.S.C. § 103(a) over Bezos in view of Meunier.

D. CLAIMS 1-13, 16-17, AND 20 ARE OBVIOUS OVER SPIEGEL IN VIEW OF MEUNIER UNDER 35 U.S.C. § 103

Requesters respectfully submit that Spiegel in view of Meunier renders obvious claims 1-13, 16-17, and 20 under 35 U.S.C. § 103(a). A detailed explanation of the pertinence and manner of applying this combination to these claims is set forth below and in the attached claim chart (Exhibit CC-D).

Please see attached Claim Chart, Exhibit CC-D, for a comparison of Claims 1-13, 16-17, and 20 of the '682 Patent with Spiegel in View of Meunier

Spiegel anticipates claims 1-13, 16-17 and 20 under 35 U.S.C. § 102(e) for the reasons explained in Section VII.B above beginning on page 63. As an additional and alternative theory of invalidity, Requesters respectfully submit that these claims are also obvious over Spiegel in view of Meunier under 35 U.S.C. § 103(a).

The system in Spiegel (which incorporates by reference the entirety of Bezos) identifies items that are of interest to the user, *e.g.*, popular books or other products, and can recommend those items to users. *See, e.g.*, Spiegel, Col. 3, lines 39-45 ("The invention may also be used to highlight personal recommendations of items that exist within the browse tree. For example, an item may be selected from the tree for personal recommendation using a collaborative filtering, content-based filtering, or other recommendations algorithm, and automatically featured at some or all of the categories in which the item falls."); Bezos, Col. 5, lines 55-58 ("Velocity and acceleration may be used to generate bestseller lists and to identify 'hot' products to proactively recommend to users…"). It would have been obvious to one of ordinary skill in the art to adapt the system of Spiegel to handle an "**item of current interest**" comprising a piece of dynamic content that is constantly-changing.

Meunier discloses a system for recommending items of current interest to users by detecting changes to existing documents and notifying users about those changes. Meunier explains that "[t]he ever-increasing universe of electronic information, for example as found on the World Wide Web (herein after referred to as the Web), competes for the effectively fixed and limited attention of people. Both consumers and producers of information want to understand what kinds of information are available, how desirable it is, and how its content and use change

through time." Meunier, Col. 1, lines 13-19 (emphasis added). Meunier claims that one of the failings of existing recommender systems is that "they provide static recommendations of potentially dynamic objects." Meunier, Col. 1, lines 65-67. Meunier explains that "[c]hanges to documents are also of interest to users. Such changes can take many forms: substantive content change, cosmetic/syntactic changes, and disappearance of the document." Meunier, Col. 2, lines 1-4.

Meunier purports to overcome these failings by providing a system that identifies items of current interest by detecting changes to existing documents. *See* Meunier, Col. 5, lines 16-18 ("A document change monitoring agent provides a means to track changes in online documents and to notify interested people about the change."). Meunier couples this document change system to a recommender system so users can be notified whenever recommended documents have changed, and therefore, have become of current interest. *See* Meunier, Col. 4, lines 47-50 ("By coupling the document change monitoring agent with a recommender system, users who have recommended items which have since changed can be notified of that change, if they so desire."). Meunier further explains that:

> The method of the present invention solves the problems cited above in the following ways: Dynamic documents (i.e. subject to changes) are handled gracefully; users are given the possibility to review collaboratively the detected changes and to modify their recommendation accordingly. Importance of changes is collaboratively evaluated in the frame of the recommender system.

Meunier, Col. 7, lines 32-41.

It would have been obvious to one of ordinary skill in the art to enhance the system of Spiegel by adding the document change monitoring system of Meunier. This would have entailed a simple addition of the document change monitoring feature of Meunier to the recommendation system of Spiegel, predictably resulting in a system in which items of current interest could be dynamic documents subject to constant change. Explicit motivations to combine are also provided throughout Meunier, including through the detailed explanation on how to add the capability to detect document changes to existing recommender systems. *See* Meunier, Col. 6, line 44-Col. 7, line 16. A skilled artisan would have had ample motivation to combine, as Meunier explains that this combination provides several advantages including that "[d]ynamic documents (i.e. subject to changes) are handled gracefully," and that the importance

of changes "is collaboratively evaluated in the frame of the recommender system." Meunier, Col. 7, lines 32-41. Claims 1-13, 16-17 and 20 are therefore obvious under 35 U.S.C. § 103(a) over Spiegel in view of Meunier.

E. CLAIMS 1-13, 16-17, AND 20 ARE ANTICIPATED BY RUCKER UNDER 35 U.S.C. § 102

Requesters respectfully submit that Rucker anticipates claims 1-13, 16-17 and 20 and therefore renders them invalid under 35 U.S.C. § 102(e). A detailed explanation of the pertinence and manner of applying Rucker to claims 1-13, 16-17, and 20 is set forth below and in the attached claim chart (Exhibit CC-E).

Please see attached Claim Chart, Exhibit CC-E, for a comparison of Claims 1-13, 16-17, and 20 of the '682 Patent with Rucker

1. A system for disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, comprising:

Rucker discloses a recommendation system for disseminating to a participant an indication that an item accessible by the participant (e.g., a uniquely identifiable object) is of current interest. The item of current interest in Rucker can comprise an information object (e.g., an electronic document), a category of information objects, a combination of an information object and the category in which it is contained, or any other object that can be uniquely identified and accessed by a participant via a network such as the World Wide Web:

> The present invention provides an efficient means for presenting a user with recommendations relevant to their current tasks and activities. These recommendations take the form of information objects, other users of the recommendation system who are pursuing or have completed similar tasks or activities, or categories of information objects other users of the system have gathered in the past. The information objects recommended can be of many different types; in the example embodiment the invention given in the Detailed Description section below is adapted to a recommendation system for documents accessible via a data communications network such as the World-Wide Web or a company intranet. In general any uniquely identifiable object is recommendable.

Rucker, Col. 2, lines 8-21 (emphasis added).

As noted, although Rucker provides an example in which items of interest are World Wide Web documents, it is applicable to any type of item, including categories of documents or even other users themselves.

> As well as delivering recommended information objects, at step 408 the recommendation system will additionally deliver identifiers of the originating categories and originating users. In some scenarios the identities of the originating user(s) is/are more relevant to the target user than the recommended information objects themselves, for example if the target user is attempting to locate colleagues who may be able to help with a particular task related to the contents of the target category.

Rucker, Col. 6, lines 3-11 (emphasis added).

a computer configured to receive in real time from a source other than the participant an indication that the item is of current interest;

Rucker discloses a computer (e.g., host processing station 102) configured to receive in real time from a source other than the participant (e.g., one or more other users) an indication that the item is of current interest, giving this claim language its broadest reasonable construction. *See* Rucker, Col. 3, lines 43-46 ("As shown here [in Fig 2], host processing station 102 includes I/O controller 204 to interface between client terminals 104x via links 106x and a processor 206.") (emphasis added).

Rucker discloses that the indication of interest is received by the recommendation system when another user creates and submits a category of interest containing one or more documents ("information objects"). Rucker refers to this other user (or source) as the "originating user" and refers to the user submitted category containing the document as the "originating category":

> Each recommended information object delivered to the target user was submitted to the recommendation system by one or more "originating users". For each originating user the information object was submitted in the context of a particular category, referred to as the "originating category". As well as delivering recommended information objects, at step 408 the recommendation system will additionally deliver identifiers of the originating categories and originating users.

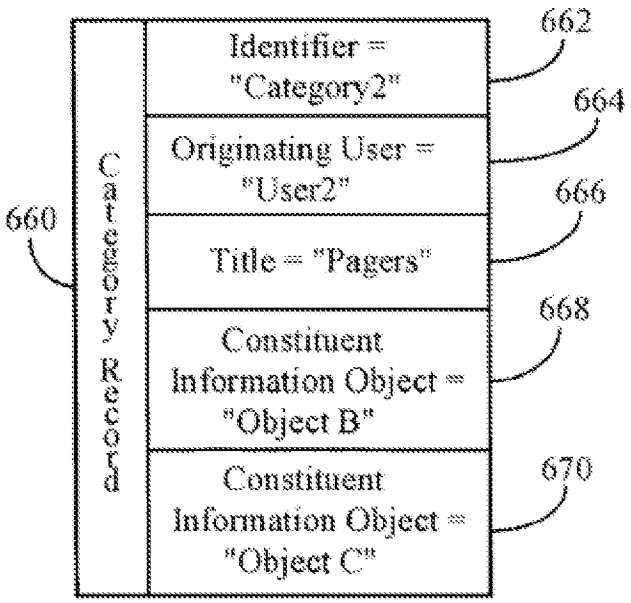
Rucker, Col. 5, line 65-Col. 6, line 2 (emphasis added).

The "originating user" thus provides an indication of interest by creating a category or electronic folder using its local computer terminal, which contains one or more associated documents or "information objects." *See* Rucker, Col. 4, lines 51-63; *see also* Rucker, Col. 6, lines 18-22 ("Referring again to FIG. 3, Wilma had previously also submitted category 312, named 'Modems,' containing information object 'D' (322). Correspondingly, category 312 is linked to one information object record, record 322 for information object 'D'.") (emphasis added). Because information objects are submitted by the originating user only the context of a particular category, the Rucker "item of current interest," under its broadest reasonable construction, comprises the information object and its originating category. As explained in the elements that follow, Rucker makes clear that the information object and its originating category are treated as a single unit or item within the recommendation system.

process the indication;

Rucker discloses that the indication received by the source or "originating user" (e.g., the information object and its originating category) is processed by creating and storing database entries by the recommendation system. *See* Rucker, Col. 4, lines 54-63. The indication is processed, for example, by the creation of a database "category record" that links the user-submitted information object with its originating category. An example of such a category record is described in Figure 6 and the accompanying text shown below:

Category record 660 (526) [**on right**] is the record for user Wilma's "Pagers" category, corresponding to category record 310 of FIG. 3. Category record 660 comprises: an identifier 662 (530), in this case "CATEGORY2"; an identifier of originating user 664 (532), in this case user "Wilma" whose unique identifier is "USER2"; a title 666 (534) assigned by the originating user, in this case "Pagers"; identifiers of two constituent information object records 668 and 670 (536 . . . 538) with identifiers "OBJECT B" and "OBJECT C" respectively.



Rucker, Col. 10, Col. 10, lines 30-42 (left; emphasis added) and Figure 6 (item 660) (right).

determine an intensity value to be associated with the indication and an intensity weight value, and

Rucker discloses determining "an intensity value to be associated with the indication" and "an intensity weight value" (a phrase that does not appear in the specification), giving this claim language its broadest reasonable construction.

The Rucker "**intensity value**" can comprise, for example, the number of documents contained within the category submitted by the "originating user" that are also present in at least one category of the "target user" (the user to whom recommendations will be provided). This value, referred to in Rucker as a "match count," is used to determine the number of shared objects between the "target user" and the originating user's category.

The system in Rucker calculates this "match count" by iterating through all of the information objects and categories on the system (including those submitted by the originating user) and, for each category, determining the number of objects in common between that category and the target user:

> Then at step 710, categories that match the "current target category" are identified in the database. As explained previously, matching categories are defined to be those categories which link to an information object

> record which is also linked to by the target category. For each matching category a "match count" is calculated as explained in relationship to flowchart 800 of FIG. 8.

Rucker, Col. 12, lines 33-39 (emphasis added).

Figure 8 and the accompanying text describe how to calculate the "match count" for each "matching category," *i.e.* a category in which there is at least one object in common with the user's "target category":

> Continuing at step 812 [of Figure 8], a test is performed to determine if the "current category" has already been encountered in this process. If the response to step 812 is "no", execution proceeds to step 814 where the "current category" is added to the "matching category list" (a list of categories that include an identifier to at least the "current information object") with a "match count" for the "current category" initialized to 0.
>
> Then, from step 814, or if the result of step 812 is "yes", execution proceeds to step 816 where the "match count" for the "current category" is incremented by 1. The "match count" for a category denotes how many matching information objects there are between that category and the "target category".

Rucker, Col. 13, lines 1-14 (emphasis added). For purposes of this Request, therefore, the Rucker "**intensity value**" can be represented by the match count associated with the category submitted by the originating user.

The Rucker "**intensity weight value**," giving the claim language its broadest reasonable construction, can comprise the total number of "matching categories" as computed at the end of the process described Figure 8. In particular:

> At step 824, the flowchart 800 of FIG. 8 is complete, and assembly of the "matching categories list" together with a "match count" for each matching category has been accomplished.
>
> Returning to flowchart 700 of FIG. 7, execution of step 710 is thus completed and the decision flow proceeds to step 712. In step 712, a decision loop is begun to examine all of the "matching categories" from the list created in step 814, together with the associated "match count".

Rucker, Col. 13, lines 52-60 (emphasis added). The fact that the recommendation system assembles a "matching categories list" confirms that it has determined the total number of matching categories.

adjusting the intensity value based on a characteristic for the item provided by the source;

Rucker discloses "adjusting the intensity value based on a characteristic for the item provided by the source," giving this claim language its broadest reasonable construction. As explained below, the recommendation system can adjust the Rucker "intensity value" – the match count for the originating category – based on numerical relevance ratings for category objects provided by the originating user.

Rucker discloses that, for objects within a particular category, the originating user can specify a numerical relevance rating for the object which is stored as part of the category record:

> Optionally, the user can specify a scalar rating for each information object in the target category. For instance, the user could indicate the degree of relevance of an object to a category by supplying an integer rating in the interval -100 to +100. If supplied, such ratings could be stored in the database as part of the category records 526, for instance one such rating could be stored for each of the constituent object identifiers 528. This rating is not necessary for the functioning of the present invention, but its inclusion can potentially lead to a more precise ranking of recommendations.

Rucker, Col. 12, lines 23-32 (emphasis added).

Rucker discloses "adjusting the intensity value based on a characteristic for the item provided by the source," under its broadest reasonable construction, through its ability to adjust the "match count" based on the relevance ratings provided by the originating user. In particular, the "match count" value is adjusted based on the difference between (a) the originating user's relevance rating for objects in the category and (b) the rating for those same objects provided by the "target user" (the user to whom recommendations will be provided):

> An alternative to step 816 is to use the ratings for matching information objects, if supplied. In that case, the current information object will have a "target rating" as supplied by the target user, and it will also have an "other rating" as supplied by the originating user of the current category. The match count of the current category is then incremented by an amount proportional to the similarity between the target rating and the other rating. For instance, the absolute value of the difference between the target rating and the other rating integers could be calculated. Then the match count of the current category could be incremented by the result of subtracting that difference from 100.

Rucker, Col. 13, lines 15-26 (emphasis added).

Because the "match count" value can be increased or decreased based on the ratings for category items provided by the originating user (the "source"), Rucker discloses "adjusting the intensity value based on a characteristic for the item provided by the source."

and; and [SIC] inform the participant that the item is of current interest; and

Rucker discloses informing the participant (e.g., the target user) "that the item is of current interest" under its broadest reasonable construction. *See* Rucker, Col. 2, lines 8-10 ("The present invention provides an efficient means for presenting a user with recommendations relevant to their current tasks and activities.") (emphasis added).

More specifically, Rucker discloses that the user is informed that the item is of interest through a "recommendations list" that includes the information objects and originating categories to be recommended:

> At step 720, the "recommendations list" of information objects is sorted by the score assigned to each in step 714. Then, at step 722, information objects from the "recommendations list" are provided to the "target user" in the context of the "current target category". These recommendations, at least initially, will consist of the top scoring information objects from the "recommendations list". In addition, for each recommended information object, the corresponding score, and a list of all of the originating categories and users who submitted them are also provided to the "target user". In the preferred embodiment of the present invention, the location pointers or identifiers of these object recommendations will be downloaded to the target user's client terminal 104x (FIG. 1). Software running on the target user's client terminal could also allow the user to select whether to receive recommendations of information objects, originating users, originating categories or any combination thereof.

Rucker, Col. 14, lines 32-48 (emphasis added).

As noted above, although Rucker provides an example in which items of interest comprise World Wide Web documents, it is applicable to any type of item, including categories of documents or even other originating users. *See* Rucker, Col. 6, lines 3-11.

a database, associated with the computer, configured to store data relating to the item.

Rucker discloses a database (e.g., category database) associated with the computer (e.g., host processing station 102) configured to store data relating to the item (e.g., the category and documents within it). *See e.g.*, Rucker, Col. 4, lines 54-63 ("Step 402 of FIG. 4 illustrates Wilma's submission of category 310 to the recommendation system, giving it the title 'Pagers'. Category 310 is the representation of this category within the database accessible by the recommendation system. In the normal course of work, Wilma has discovered two relevant documents, or information objects, 'B' (318) and 'C' (320) related to 'pagers'. Correspondingly, category 310 is linked to record 318 for information object 'B' and record 320 for information object 'C'.") (emphasis added).

2. A computer program product for disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, the computer program product being embodied in a computer readable medium and comprising computer instructions for:

Claim 2 is substantially similar to claim 1, except that claim 2 is directed to a computer program product whereas claim 1 is directed to a system. As explained above with respect to claim 1, Rucker discloses a system for disseminating to a participant an indication that an item accessible by the participant via a network is of current interest. *See* disclosures for claim 1, above. The system in Rucker also includes a computer program product embodied in a computer readable medium and comprising computer instructions, *e.g.* software containing instructions stored on a computer storage device:

> Referring next to FIG. 2 there is shown a simplified block diagram of host processing station 102 of FIG. 1. As shown here, host processing station 102 includes an I/O controller 204 to interface between client terminals 104x via links 106x and a processor 206. Coupled to processor 206 are memory 208 (e.g., RAM) and storage devices 210 (e.g., hard disk drives).

Rucker, Col. 3, lines 43-49 (emphasis added).

> Referring next to FIG. 7 there is shown a more detailed flowchart 700 of a routine for recommending references of the present invention than that shown in FIG. 4. The decision flow represented by flowchart 700 can be implemented with one or more software routines on one or more computers. Further, flowchart 700 illustrates the broad logical flow of the routine of the present invention to accomplish the recommendation procedure in a more general case than the simplified example given above

> with respect to FIGS. 3, 4 and 6. Other logical flows to implement the present invention will also become apparent from the full details of the present invention and they will each be within the scope of the present invention. A software routine, or routines, implementing flowchart 700 may be written in any suitable computer language, such as "C", "Java", assembly language, or others. For ease of discussion we will refer to the routine of flowchart 700 as a single routine.

Rucker, Col. 11, lines 37-53 (emphasis added).

As explained above in connection with claim 1, Rucker discloses a recommendation system and method for disseminating to a participant an indication that an item accessible by the participant (e.g., a uniquely identifiable object) is of current interest. The item of current interest in Rucker can comprise an information object (e.g., an electronic document), a category of information objects, a combination of an information object and the category in which it is contained, or any other object that can be uniquely identified and accessed by a participant via a network such as the World Wide Web:

> The present invention provides an efficient means for presenting a user with recommendations relevant to their current tasks and activities. These recommendations take the form of information objects, other users of the recommendation system who are pursuing or have completed similar tasks or activities, or categories of information objects other users of the system have gathered in the past. The information objects recommended can be of many different types; in the example embodiment the invention given in the Detailed Description section below is adapted to a recommendation system for documents accessible via a data communications network such as the World-Wide Web or a company intranet. In general any uniquely identifiable object is recommendable.

Rucker, Col. 2, lines 8-21 (emphasis added).

As noted, although Rucker provides an example in which items of interest are World Wide Web documents, it is applicable to any type of item, including categories of documents or even other users themselves.

> As well as delivering recommended information objects, at step 408 the recommendation system will additionally deliver identifiers of the originating categories and originating users. In some scenarios the identities of the originating user(s) is/are more relevant to the target user than the recommended information objects themselves, for example if the

> target user is attempting to locate colleagues who may be able to help with a particular task related to the contents of the target category.

Rucker, Col. 6, lines 3-11 (emphasis added).

receiving in real time from a source other than the participant an indication that the item is of current interest;

As explained above with respect to claim 1, Rucker discloses receiving in real time from a source other than the participant (e.g., one or more other users) an indication that the item is of current interest, giving this claim language its broadest reasonable construction. *See* Rucker, Col. 3, lines 43-46 ("As shown here [in Fig 2], host processing station 102 includes I/O controller 204 to interface between client terminals 104x via links 106x and a processor 206.") (emphasis added).

Rucker discloses that the indication of interest is received by the recommendation system when another user creates and submits a category of interest containing one or more documents ("information objects"). Rucker refers to this other user (or source) as the "originating user" and refers to the user submitted category containing the document as the "originating category":

> Each recommended information object delivered to the target user was submitted to the recommendation system by one or more "originating users". For each originating user the information object was submitted in the context of a particular category, referred to as the "originating category". As well as delivering recommended information objects, at step 408 the recommendation system will additionally deliver identifiers of the originating categories and originating users.

Rucker, Col. 5, line 65-Col. 6, line 2 (emphasis added).

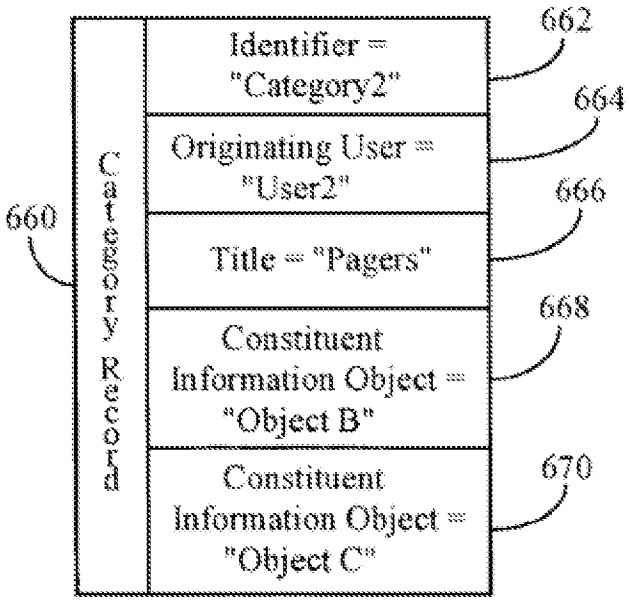
The "originating user" thus provides an indication of interest by creating a category or electronic folder using its local computer terminal, which contains one or more associated documents or "information objects." *See* Rucker, Col. 4, lines 51-63; *see also* Rucker, Col. 6, lines 18-22 ("Referring again to FIG. 3, Wilma had previously also submitted category 312, named 'Modems,' containing information object 'D' (322). Correspondingly, category 312 is linked to one information object record, record 322 for information object 'D'.") (emphasis added). Because information objects are submitted by the originating user only the context of a particular category, the Rucker "item of current interest," under its broadest reasonable construction, comprises the information object and its originating category. As explained in the

elements that follow, Rucker makes clear that the information object and its originating category are treated as a single unit or item within the recommendation system.

processing the indication;

As explained above with respect to claim 1, Rucker discloses that the indication received by the source or "originating user" (e.g., the information object and its originating category) is processed by creating and storing database entries by the recommendation system. *See* Rucker, Col. 4, lines 54-63. The indication is processed, for example, by the creation of a database "category record" that links the user-submitted information object with its originating category. An example of such a category record is described in Figure 6 and the accompanying text shown below:

> Category record 660 (526) [**on right**] is the record for user Wilma's "Pagers" category, corresponding to category record 310 of FIG. 3. Category record 660 comprises: an identifier 662 (530), in this case "CATEGORY2"; an identifier of originating user 664 (532), in this case user "Wilma" whose unique identifier is "USER2"; a title 666 (534) assigned by the originating user, in this case "Pagers"; identifiers of two constituent information object records 668 and 670 (536 . . . 538) with identifiers "OBJECT B" and "OBJECT C" respectively.



Rucker, Col. 10, Col. 10, lines 30-42 (left; emphasis added) and Figure 6 (item 660) (right).

determining an intensity value to be associated with the indication and an intensity weight value, and

Rucker discloses determining "an intensity value to be associated with the indication" and "an intensity weight value" (a phrase that does not appear in the specification), giving this claim language its broadest reasonable construction.

The Rucker "**intensity value**" can comprise, for example, the number of documents contained within the category submitted by the "originating user" that are also present in at least one category of the "target user" (the user to whom recommendations will be provided). This value, referred to in Rucker as a "match count," is used to determine the number of shared objects between the "target user" and the originating user's category.

The system in Rucker calculates this "match count" by iterating through all of the information objects and categories on the system (including those submitted by the originating user) and, for each category, determining the number of objects in common between that category and the target user:

> Then at step 710, categories that match the "current target category" are identified in the database. As explained previously, matching categories are defined to be those categories which link to an information object record which is also linked to by the target category. For each matching category a "match count" is calculated as explained in relationship to flowchart 800 of FIG. 8.

Rucker, Col. 12, lines 33-39 (emphasis added).

Figure 8 and the accompanying text describe how to calculate the "match count" for each "matching category," *i.e.* a category in which there is at least one object in common with the user's "target category":

> Continuing at step 812 [of Figure 8], a test is performed to determine if the "current category" has already been encountered in this process. If the response to step 812 is "no", execution proceeds to step 814 where the "current category" is added to the "matching category list" (a list of categories that include an identifier to at least the "current information object") with a "match count" for the "current category" initialized to 0.
>
> Then, from step 814, or if the result of step 812 is "yes", execution proceeds to step 816 where the "match count" for the "current category" is incremented by 1. The "match count" for a category denotes how many matching information objects there are between that category and the "target category".

Rucker, Col. 13, lines 1-14 (emphasis added). For purposes of this Request, therefore, the Rucker "**intensity value**" can be represented by the match count associated with the category submitted by the originating user.

The Rucker "**intensity weight value**," giving the claim language its broadest reasonable construction, can comprise the total number of "matching categories" as computed at the end of the process described Figure 8. In particular:

> At step 824, the flowchart 800 of FIG. 8 is complete, and assembly of the "matching categories list" together with a "match count" for each matching category has been accomplished.
>
> Returning to flowchart 700 of FIG. 7, execution of step 710 is thus completed and the decision flow proceeds to step 712. In step 712, a decision loop is begun to examine all of the "matching categories" from the list created in step 814, together with the associated "match count".

Rucker, Col. 13, lines 52-60 (emphasis added). The fact that the recommendation system assembles a "matching categories list" confirms that it has determined the total number of matching categories.

adjusting the intensity value based on a characteristic for the item provided by the source; and

As explained above with respect to claim 1, Rucker discloses this element under its broadest reasonable construction. As explained below, the recommendation system can adjust the Rucker "intensity value" – the match count for the originating category – based on numerical relevance ratings for category objects provided by the originating user.

Rucker discloses that, for objects within a particular category, the originating user can specify a numerical relevance rating for the object which is stored as part of the category record:

> Optionally, the user can specify a scalar rating for each information object in the target category. For instance, the user could indicate the degree of relevance of an object to a category by supplying an integer rating in the interval -100 to +100. If supplied, such ratings could be stored in the database as part of the category records 526, for instance one such rating could be stored for each of the constituent object identifiers 528. This rating is not necessary for the functioning of the present invention, but its inclusion can potentially lead to a more precise ranking of recommendations.

Rucker, Col. 12, lines 23-32 (emphasis added).

Rucker discloses "adjusting the intensity value based on a characteristic for the item provided by the source," under its broadest reasonable construction, through its ability to adjust

the "match count" based on the relevance ratings provided by the originating user. In particular, the "match count" value is adjusted based on the difference between (a) the originating user's relevance rating for objects in the category and (b) the rating for those same objects provided by the "target user" (the user to whom recommendations will be provided):

> An alternative to step 816 is to use the ratings for matching information objects, if supplied. In that case, the current information object will have a "target rating" as supplied by the target user, and it will also have an "other rating" as supplied by the originating user of the current category. The match count of the current category is then incremented by an amount proportional to the similarity between the target rating and the other rating. For instance, the absolute value of the difference between the target rating and the other rating integers could be calculated. Then the match count of the current category could be incremented by the result of subtracting that difference from 100.

Rucker, Col. 13, lines 15-26 (emphasis added).

Because the "match count" value can be increased or decreased based on the ratings for category items provided by the originating user (the "source"), Rucker discloses "adjusting the intensity value based on a characteristic for the item provided by the source."

informing the participant that the item is of current interest.

As explained above with respect to claim 1, Rucker discloses informing the participant (e.g., the target user) "that the item is of current interest" under its broadest reasonable construction. *See* Rucker, Col. 2, lines 8-10 ("The present invention provides an efficient means for presenting a user with recommendations relevant to their current tasks and activities.") (emphasis added).

More specifically, Rucker discloses that the user is informed that the item is of interest through a "recommendations list" that includes the information objects and originating categories to be recommended:

> At step 720, the "recommendations list" of information objects is sorted by the score assigned to each in step 714. Then, at step 722, information objects from the "recommendations list" are provided to the "target user" in the context of the "current target category". These recommendations, at least initially, will consist of the top scoring information objects from the "recommendations list". In addition, for each recommended information object, the corresponding score, and a list of all of the originating

> categories and users who submitted them are also provided to the "target user". In the preferred embodiment of the present invention, the location pointers or identifiers of these object recommendations will be downloaded to the target user's client terminal 104x (FIG. 1). Software running on the target user's client terminal could also allow the user to select whether to receive recommendations of information objects, originating users, originating categories or any combination thereof.

Rucker, Col. 14, lines 32-48 (emphasis added).

As noted above, although Rucker provides an example in which items of interest comprise World Wide Web documents, it is applicable to any type of item, including categories of documents or even other originating users. *See* Rucker, Col. 6, lines 3-11.

3. A method of disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, comprising:

Claim 3 of the '682 patent is substantially similar to claim 1, except that claim 3 is directed to a method whereas claim 1 is directed to a system.

As explained above in connection with claim 1, Rucker discloses a recommendation system and method for disseminating to a participant an indication that an item accessible by the participant (e.g., a uniquely identifiable object) is of current interest. The item of current interest in Rucker can comprise an information object (e.g., an electronic document), a category of information objects, a combination of an information object and the category in which it is contained, or any other object that can be uniquely identified and accessed by a participant via a network such as the World Wide Web:

> The present invention provides an efficient means for presenting a user with recommendations relevant to their current tasks and activities. These recommendations take the form of information objects, other users of the recommendation system who are pursuing or have completed similar tasks or activities, or categories of information objects other users of the system have gathered in the past. The information objects recommended can be of many different types; in the example embodiment the invention given in the Detailed Description section below is adapted to a recommendation system for documents accessible via a data communications network such as the World-Wide Web or a company intranet. In general any uniquely identifiable object is recommendable.

Rucker, Col. 2, lines 8-21 (emphasis added).

As noted, although Rucker provides an example in which items of interest are World Wide Web documents, it is applicable to any type of item, including categories of documents or even other users themselves.

> As well as delivering recommended information objects, at step 408 the recommendation system will additionally deliver identifiers of the originating categories and originating users. In some scenarios the identities of the originating user(s) is/are more relevant to the target user than the recommended information objects themselves, for example if the target user is attempting to locate colleagues who may be able to help with a particular task related to the contents of the target category.

Rucker, Col. 6, lines 3-11 (emphasis added).

receiving in real time from a source other than the participant an indication that the item is of current interest;

As explained above with respect to claim 1, Rucker discloses receiving in real time from a source other than the participant (e.g., one or more other users) an indication that the item is of current interest, giving this claim language its broadest reasonable construction. *See* Rucker, Col. 3, lines 43-46 ("As shown here [in Fig 2], host processing station 102 includes I/O controller 204 to interface between client terminals 104x via links 106x and a processor 206.") (emphasis added).

Rucker discloses that the indication of interest is received by the recommendation system when another user creates and submits a category of interest containing one or more documents ("information objects"). Rucker refers to this other user (or source) as the "originating user" and refers to the user submitted category containing the document as the "originating category":

> Each recommended information object delivered to the target user was submitted to the recommendation system by one or more "originating users". For each originating user the information object was submitted in the context of a particular category, referred to as the "originating category". As well as delivering recommended information objects, at step 408 the recommendation system will additionally deliver identifiers of the originating categories and originating users.

Rucker, Col. 5, line 65-Col. 6, line 2 (emphasis added).

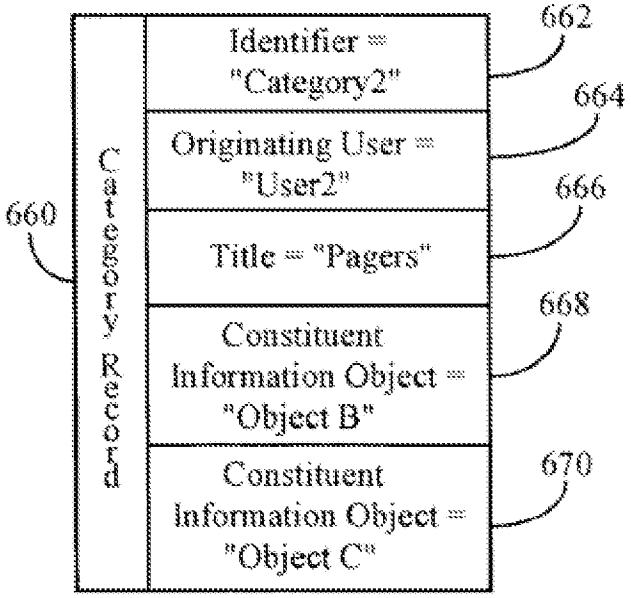
The "originating user" thus provides an indication of interest by creating a category or electronic folder using its local computer terminal, which contains one or more associated

documents or "information objects." *See* Rucker, Col. 4, lines 51-63; *see also* Rucker, Col. 6, lines 18-22 ("Referring again to FIG. 3, Wilma had previously also submitted category 312, named 'Modems,' containing information object 'D' (322). Correspondingly, category 312 is linked to one information object record, record 322 for information object 'D'.") (emphasis added). Because information objects are submitted by the originating user only the context of a particular category, the Rucker "item of current interest," under its broadest reasonable construction, comprises the information object and its originating category. As explained in the elements that follow, Rucker makes clear that the information object and its originating category are treated as a single unit or item within the recommendation system.

processing the indication;

As explained above with respect to claim 1, Rucker discloses that the indication received by the source or "originating user" (e.g., the information object and its originating category) is processed by creating and storing database entries by the recommendation system. *See* Rucker, Col. 4, lines 54-63. The indication is processed, for example, by the creation of a database "category record" that links the user-submitted information object with its originating category. An example of such a category record is described in Figure 6 and the accompanying text shown below:

Category record 660 (526) [**on right**] is the record for user Wilma's "Pagers" category, corresponding to category record 310 of FIG. 3. Category record 660 comprises: an identifier 662 (530), in this case "CATEGORY2"; an identifier of originating user 664 (532), in this case user "Wilma" whose unique identifier is "USER2"; a title 666 (534) assigned by the originating user, in this case "Pagers"; identifiers of two constituent information object records 668 and 670 (536 . . . 538) with identifiers "OBJECT B" and "OBJECT C" respectively.



Rucker, Col. 10, Col. 10, lines 30-42 (left; emphasis added) and Figure 6 (item 660) (right).

determining an intensity value to be associated with the indication and an intensity weight value, and

Rucker discloses determining "an intensity value to be associated with the indication" and "an intensity weight value" (a phrase that does not appear in the specification), giving this claim language its broadest reasonable construction.

The Rucker "**intensity value**" can comprise, for example, the number of documents contained within the category submitted by the "originating user" that are also present in at least one category of the "target user" (the user to whom recommendations will be provided). This value, referred to in Rucker as a "match count," is used to determine the number of shared objects between the "target user" and the originating user's category.

The system in Rucker calculates this "match count" by iterating through all of the information objects and categories on the system (including those submitted by the originating user) and, for each category, determining the number of objects in common between that category and the target user:

> Then at step 710, categories that match the "current target category" are identified in the database. As explained previously, matching categories are defined to be those categories which link to an information object record which is also linked to by the target category. For each matching category a "match count" is calculated as explained in relationship to flowchart 800 of FIG. 8.

Rucker, Col. 12, lines 33-39 (emphasis added).

Figure 8 and the accompanying text describe how to calculate the "match count" for each "matching category," *i.e.* a category in which there is at least one object in common with the user's "target category":

> Continuing at step 812 [of Figure 8], a test is performed to determine if the "current category" has already been encountered in this process. If the response to step 812 is "no", execution proceeds to step 814 where the "current category" is added to the "matching category list" (a list of categories that include an identifier to at least the "current information object") with a "match count" for the "current category" initialized to 0.

> Then, from step 814, or if the result of step 812 is "yes", execution proceeds to step 816 where the "match count" for the "current category" is incremented by 1. The "match count" for a category denotes how many matching information objects there are between that category and the "target category".

Rucker, Col. 13, lines 1-14 (emphasis added). For purposes of this Request, therefore, the Rucker "**intensity value**" can be represented by the match count associated with the category submitted by the originating user.

The Rucker "**intensity weight value**," giving the claim language its broadest reasonable construction, can comprise the total number of "matching categories" as computed at the end of the process described Figure 8. In particular:

> At step 824, the flowchart 800 of FIG. 8 is complete, and assembly of the "matching categories list" together with a "match count" for each matching category has been accomplished.
>
> Returning to flowchart 700 of FIG. 7, execution of step 710 is thus completed and the decision flow proceeds to step 712. In step 712, a decision loop is begun to examine all of the "matching categories" from the list created in step 814, together with the associated "match count".

Rucker, Col. 13, lines 52-60 (emphasis added). The fact that the recommendation system assembles a "matching categories list" confirms that it has determined the total number of matching categories.

adjusting the intensity value based on a characteristic for the item provided by the source;

As explained above with respect to claim 1, Rucker discloses this element under its broadest reasonable construction. As explained below, the recommendation system can adjust the Rucker "intensity value" – the match count for the originating category – based on numerical relevance ratings for category objects provided by the originating user.

Rucker discloses that, for objects within a particular category, the originating user can specify a numerical relevance rating for the object which is stored as part of the category record:

> Optionally, the user can specify a scalar rating for each information object in the target category. For instance, the user could indicate the degree of relevance of an object to a category by supplying an integer rating in the

> interval -100 to +100. If supplied, such ratings could be stored in the database as part of the category records 526, for instance one such rating could be stored for each of the constituent object identifiers 528. This rating is not necessary for the functioning of the present invention, but its inclusion can potentially lead to a more precise ranking of recommendations.

Rucker, Col. 12, lines 23-32 (emphasis added).

Rucker discloses "adjusting the intensity value based on a characteristic for the item provided by the source," under its broadest reasonable construction, through its ability to adjust the "match count" based on the relevance ratings provided by the originating user. In particular, the "match count" value is adjusted based on the difference between (a) the originating user's relevance rating for objects in the category and (b) the rating for those same objects provided by the "target user" (the user to whom recommendations will be provided):

> An alternative to step 816 is to use the ratings for matching information objects, if supplied. In that case, the current information object will have a "target rating" as supplied by the target user, and it will also have an "other rating" as supplied by the originating user of the current category. The match count of the current category is then incremented by an amount proportional to the similarity between the target rating and the other rating. For instance, the absolute value of the difference between the target rating and the other rating integers could be calculated. Then the match count of the current category could be incremented by the result of subtracting that difference from 100.

Rucker, Col. 13, lines 15-26 (emphasis added).

Because the "match count" value can be increased or decreased based on the ratings for category items provided by the originating user (the "source"), Rucker discloses "adjusting the intensity value based on a characteristic for the item provided by the source."

informing the participant that the item is of current interest.

As explained above with respect to claim 1, Rucker discloses informing the participant (e.g., the target user) "that the item is of current interest" under its broadest reasonable construction. *See* Rucker, Col. 2, lines 8-10 ("The present invention provides an efficient means for presenting a user with recommendations relevant to their current tasks and activities.") (emphasis added).

More specifically, Rucker discloses that the user is informed that the item is of interest through a "recommendations list" that includes the information objects and originating categories to be recommended:

> At step 720, the "recommendations list" of information objects is sorted by the score assigned to each in step 714. Then, at step 722, information objects from the "recommendations list" are provided to the "target user" in the context of the "current target category". These recommendations, at least initially, will consist of the top scoring information objects from the "recommendations list". In addition, for each recommended information object, the corresponding score, and a list of all of the originating categories and users who submitted them are also provided to the "target user". In the preferred embodiment of the present invention, the location pointers or identifiers of these object recommendations will be downloaded to the target user's client terminal 104x (FIG. 1). Software running on the target user's client terminal could also allow the user to select whether to receive recommendations of information objects, originating users, originating categories or any combination thereof.

Rucker, Col. 14, lines 32-48 (emphasis added).

As noted above, although Rucker provides an example in which items of interest comprise World Wide Web documents, it is applicable to any type of item, including categories of documents or even other originating users. *See* Rucker, Col. 6, lines 3-11.

4. The method of claim 3, wherein processing the indication comprises determining the intensity value for the indication based on at least one attribute of the indication, the intensity value representing the weight that will be given to the indication.

As shown above, claim 3 is anticipated by Rucker. Rucker also discloses that processing the indication comprises determining an intensity value to be associated with the indication based on an attribute of the indication, the intensity value representing the weight that will be given to the indication, giving this claim language its broadest reasonable construction.

The attribute in Rucker can comprise, for example, the choice of the objects or documents contained within the category submitted by the "originating user." As explained in connection with claim 3 above, the Rucker "intensity value" comprises a "match count" that reflects the number of objects shared between the "target user" (the user to whom recommendations will be provided) and the category submitted by the originating user. *See*

Rucker, Col. 12, lines 33-39, col. 13, lines 1-14; see also Claim 3 ("determining" step). Because the "match count" calculation is influenced and weighted by the objects the originating user has chosen to place in the originating user's category, Rucker discloses "determining an intensity value to be associated with the indication based on an attribute of the indication, the intensity value representing the weight that will be given to the indication."

5. The method of claim 4, wherein processing the indication further comprises calculating an intensity rank for the item based at least in part on the intensity value of the indication, the intensity rank indicating the level of current interest of the item relative to other items.

As shown above, claim 4 is anticipated by Rucker. Rucker also discloses that processing the indication further comprises calculating an intensity rank for the item based at least in part on the intensity value of the indication, giving this claim language its broadest reasonable construction. In particular, the "intensity value" in Rucker, which is represented by the "match count" for the originating category, is used to calculate a "score" for that category that is used as an intensity rank indicating the current level of interest of the item relative to other items.

This "score" or "intensity rank" is calculated by iterating through all of the "matching categories" (including the one submitted by the originating user) and, for each category, counting the number of objects in that category that are not yet known to the "target user" (the user to whom recommendations will be provided):

> At step 712 the first category from the list of "Matching categories" is set equal to the "current matching category". Then at step 714, another decision loop is begun to calculate a score for each unmatched information object identified by each category identified in the list created in step 814 as it cycles through as the "current matching category". Note, an unmatched information object is an information object which is linked with at least one matching category in the list from step 814, but is not also linked with the target category. Also note that an unmatched information object may occur in more than one matching category. Thus, in a preferred embodiment, a score for an unmatched information object is calculated by summing the match counts for each matching category in which it occurs. Then, all of the unmatched information objects and their associated scores are added to a "recommendations list".

Rucker, Col. 14, lines 1-15 (emphasis added).

The Rucker score or "intensity rank" value is used to indicate the level of current interest of the item (e.g. the information category and the unmatched document(s) within it). This is accomplished by ranking the items based on the score assigned to them such that top scoring items appear before lower scoring items:

> At step 720, the "recommendations list" of information objects is sorted by the score assigned to each in step 714. Then, at step 722, information objects from the "recommendations list" are provided to the "target user" in the context of the "current target category". These recommendations, at least initially, will consist of the top scoring information objects from the "recommendations list". In addition, for each recommended information object, the corresponding score, and a list of all of the originating categories and users who submitted them are also provided to the "target user".

Rucker, Col. 14, lines 32-41 (emphasis added).

6. The method of claim 5, further comprising: associating the item with a category of interest to which the item relates;

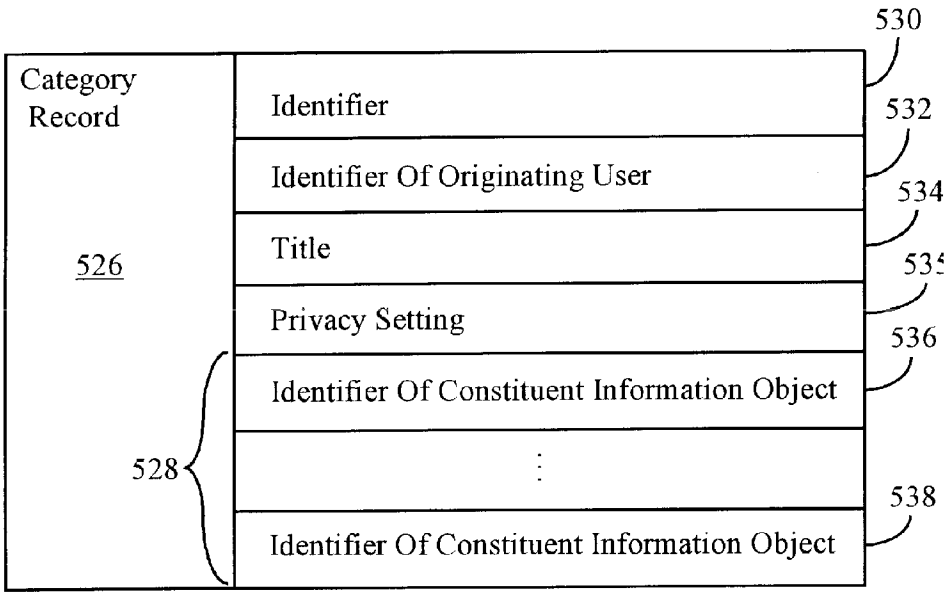
As shown above, claim 5 is anticipated by Rucker. Rucker also discloses that the item is associated with a category of interest to which the item relates, as explained below.

As explained in connection with claim 3 above, whenever an originating user submits an information object (such as a document) to the recommendation system, the system requires that it be associated with a category to which it relates:

> Each recommended information object delivered to the target user was submitted to the recommendation system by one or more "originating users". For each originating user the information object was submitted in the context of a particular category, referred to as the "originating category". As well as delivering recommended information objects, at step 408 the recommendation system will additionally deliver identifiers of the originating categories and originating users.

Rucker, Col. 5, line 65-Col. 6, line 2 (emphasis added).

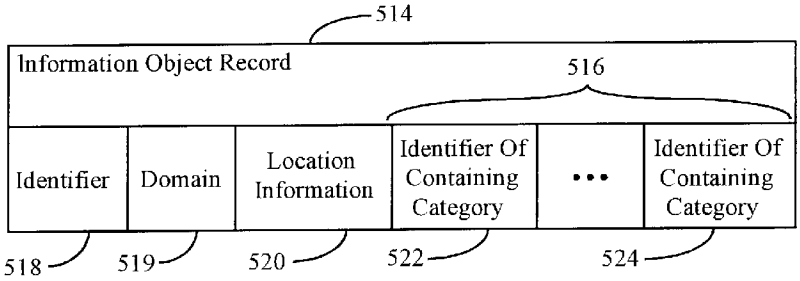
Each category record in Rucker includes information identifying each information object ("constituent information object") within that category, as illustrated in Figure 5 (528, 536-538):



Rucker – Figure 5

See Rucker, Figure 5 (526) *and* Col. 9, lines 32-52 (describing Category Record 526).

The record for each "constituent information object," in turn, records all of the categories in which the object is contained:



Rucker – Figure 5

See Rucker, Figure 5 (514) *and* Col. 9, lines 14-31 (describing Information Object Record 514). The information objects and categories are, therefore, "cross-linked" to each other:

> Each identifier in subfields 536 … 538 [of the Category Record 526] is sufficient to uniquely determine an information object record, and that corresponding information object record in turn identifies an identifier to this category record thus cross-linking the two.

Rucker, Col. 9, lines 48-52.

This cross-linking demonstrates that the item (which includes the originating category and the information objects in it) is associated with other categories of interest within the recommendation system. Rucker therefore satisfies this step.

receiving from the participant a selection of one or more categories of interest to the participant;

Rucker discloses receiving from the participant a selection of a category of interest to the participant (e.g., one or more "target categories" selected by the "target user" to whom recommendations will be provided). In particular, the "target user" must submit a category of interest to the recommendation system (known as a "target category"):

> In this scenario, user Wilma has a task of "investigating the pager market" with the following example demonstrating how the recommendation service of the present invention helps Wilma with this information seeking task. In the following discussion, Wilma is the "target user" that has requested the recommendation system of the present invention to search for additional objects that fit within the specified category that Wilma has created, and "pagers" (310) is the target category.
>
> On her client terminal 104x (e.g., a personal computer), Wilma has created an electronic folder, or category 310, to contain references to discovered documents pertaining to the task "investigating the pager market". Step 402 of FIG. 4 illustrates Wilma's submission of category 310 to the recommendation system, giving it the title "Pagers".

Rucker, Col, 4, lines 42-56 (emphasis added).

identifying all items of current interest within the selected categories;

Rucker discloses identifying all items of current interest within the selected categories (*e.g.*, within the "target category" submitted by the participant). As explained in more detail in connection with claim 3 above, the system in Rucker identifies all "matching categories," *i.e.* all originating categories in which at least one object matches an object in the participant's "target category." *See* Rucker, Col. 13, lines 11-14 ("The 'match count' for a category denotes how many matching information objects there are between that category and the 'target category'.") *and* Col. 13, lines 35-37 ("Each new category is added to the 'matching categories list' in step 814 exactly once…"). The result of the process is a "matching categories list," *i.e.* a list of all categories that match the selected category:

> At step 824, the flowchart 800 of FIG. 8 is complete, and assembly of the "matching categories list" together with a "match count" for each matching category has been accomplished.
>
> Returning to flowchart 700 of FIG. 7, execution of step 710 is thus completed and the decision flow proceeds to step 712. In step 712, a decision loop is begun to examine all of the "matching categories" from the list created in step 814, together with the associated "match count".

Rucker, Col. 13, lines 52-60 (emphasis added).

The system in Rucker then identifies all unmatched information objects within each "matching category" (e.g., information objects not yet known to the participant) to narrow down and identify the object(s) and categor(ies) to present to the participant:

> At step 712 the first category from the list of "Matching categories" is set equal to the "current matching category". Then at step 714, another decision loop is begun to calculate a score for each unmatched information object identified by each category identified in the list created in step 814 as it cycles through as the "current matching category". Note, an unmatched information object is an information object which is linked with at least one matching category in the list from step 814, but is not also linked with the target category. Also note that an unmatched information object may occur in more than one matching category. Thus, in a preferred embodiment, a score for an unmatched information object is calculated by summing the match counts for each matching category in which it occurs. Then, all of the unmatched information objects and their associated scores are added to a "recommendations list".

Rucker, Col. 14, lines 1-15 (emphasis added).

Identifying all "matching categories," and then calculating a score for "all unmatched information objects," *id.*, confirms that Rucker discloses the step of "identifying all items of current interest within the selected categories."

ranking the identified items of current interest;

Rucker discloses ranking the identified items of current interest. This occurs by using the calculated "score" for the items (discussed above) and creating an ordered "recommendations list" in which higher scoring items appear before items that received lower scores: "At step 720, the 'recommendations list' of information objects is sorted by the score assigned to each in step 714." Rucker, Col. 14, lines 32-33 (emphasis added).

and sending to the participant a list of items of current interest in rank order, the list including at least one of the identified items of current interest;

Rucker discloses sending to the participant a list of items of current interest in rank order the list including at least one of the items of current interest. In particular, the "recommendations list" discussed above is sent to the participant in rank order such that higher scoring items appear first. The list includes at least one of identified items of current interest (e.g., the originating category and information object contained within it):

> At step 720, the "recommendations list" of information objects is sorted by the score assigned to each in step 714. Then, at step 722, information objects from the "recommendations list" are provided to the "target user" in the context of the "current target category". These recommendations, at least initially, will consist of the top scoring information objects from the "recommendations list". In addition, for each recommended information object, the corresponding score, and a list of all of the originating categories and users who submitted them are also provided to the "target user".

Rucker, Col. 14, lines 32-41 (emphasis added).

wherein the ranking of each item is based, at least in part, on the level of current interest of each item relative to other items as indicated at least in part by the intensity rank.

Rucker discloses that the ranking of each item is based, at least in part, on the level of current interest of each item relative to other items as indicated at least in part by the intensity rank, giving this claim language its broadest reasonable construction. For example, as explained above, each item that may be recommended to the participant is placed in the "recommendations list" in order based on its score. *See* Rucker, Col. 14, lines 32-41. The Rucker intensity rank is represented by a "score" associated with each information object to be recommended. *Id.* The fact that certain objects receive higher "scores," and are therefore placed higher on the "recommendations list," confirms that the ranking is based on "the level of current interest of each item relative to the other items as indicated at least in part by the intensity rank."

7. The method of claim 3, further comprising receiving a comment relating to the item.

As shown above, claim 3 is anticipated by Rucker. Rucker also discloses receiving a comment relating to the item. This can take place, for example, by receiving textual information about the item in the form of a communication between the participant and the originating user,

for example, using e-mail. *See* Rucker, Col. 6, line 48-Col. 7, line 2. This e-mail discussion can become a "discussion object" that becomes available as a comment via the World Wide Web:

> Further, the full text of the ensuing electronic discussion is also archived on the host processing station, in the form of a "discussion object", an information object accessible via a public data communications network, e.g., a World-Wide Web page. Optionally, access restrictions would be imposed on such an information object, for instance only allowing the recipients of the electronic mailing list to access or be recommended the object. Further, the information object representing the electronic discussion can automatically be appended to the target category, and henceforth be available for recommendation to future target users. For instance, in the current example, the ensuing series of electronic mail messages between users Wilma and Barney can be stored on a World-Wide Web page, which can be linked in the system's database to user Wilma's "Pagers" category.

Rucker, Col. 7, lines 3-18 (emphasis added).

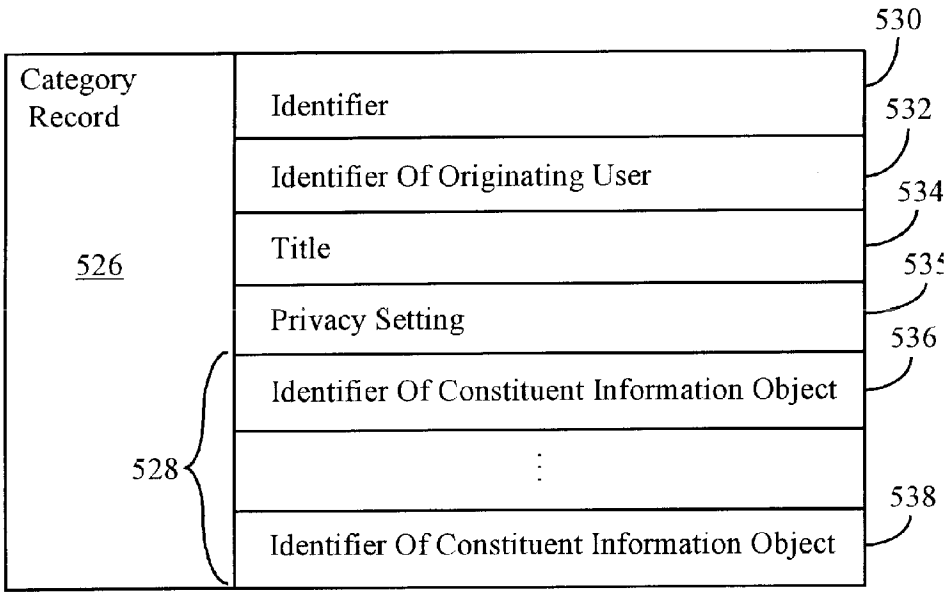
8. The method of claim 3, further comprising receiving data identifying the source of the indication.

As shown above, claim 3 is anticipated by Rucker. Rucker also discloses the step of receiving data identifying the source of the indication (e.g., data identifying the originating user who submitted the category). For example:

> Each recommended information object delivered to the target user was submitted to the recommendation system by one or more "originating users". For each originating user the information object was submitted in the context of a particular category, referred to as the "originating category". As well as delivering recommended information objects, at step 408 the recommendation system will additionally deliver identifiers of the originating categories and originating users.

Rucker, Col. 5, line 65-Col. 6, line 2 (emphasis added).

Each category record in Rucker includes a field identifying the "originating user," *i.e.*, the source of the indication. This is illustrated in Figure 5 (532):



Rucker – Figure 5

See Rucker, Figure 5 (526) *and* Col. 9, lines 34-38 ("The category record 526 further comprises a field 532 containing an identifier of the user record of the user that defined the category for which the category record was created, and a field 534 containing the title of the category assigned by the originating user.") (emphasis added). The fact that the recommendation system of Rucker stores the identification of the originating user confirms that the system is "receiving data identifying the source of the indication" as recited in claim 8.

9. The method of claim 3, further comprising associating the item with a category of interest to which the item relates.

As shown above, claim 3 is anticipated by Rucker. Rucker also discloses that the item is associated with a category of interest to which the item relates, as explained below.

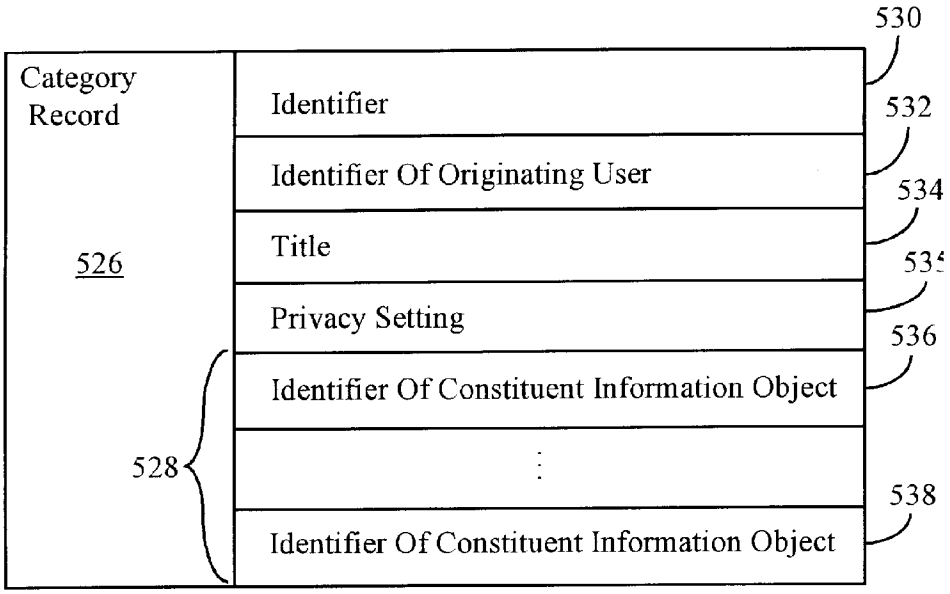
As explained in connection with claim 3 above, whenever an originating user submits an information object (such as a document) to the recommendation system, the system requires that it be associated with a category to which it relates:

> Each recommended information object delivered to the target user was submitted to the recommendation system by one or more "originating users". For each originating user the information object was submitted in the context of a particular category, referred to as the "originating category". As well as delivering recommended information objects, at step

408 the recommendation system will additionally deliver identifiers of the originating categories and originating users.

Rucker, Col. 5, line 65-Col. 6, line 2 (emphasis added).

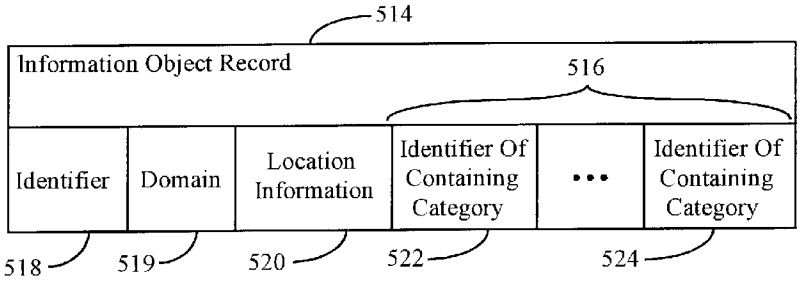
Each category record in Rucker includes information identifying each information object ("constituent information object") within that category, as illustrated in Figure 5 (528, 536-538):



Rucker – Figure 5

See Rucker, Figure 5 (526) *and* Col. 9, lines 32-52 (describing Category Record 526).

The record for each "constituent information object," in turn, records all of the categories in which the object is contained:



Rucker – Figure 5

See Rucker, Figure 5 (514) *and* Col. 9, lines 14-31 (describing Information Object Record 514). The information objects and categories are, therefore, "cross-linked" to each other:

> Each identifier in subfields 536 … 538 [of the Category Record 526] is sufficient to uniquely determine an information object record, and that corresponding information object record in turn identifies an identifier to this category record thus cross-linking the two.

Rucker, Col. 9, lines 48-52.

This cross-linking demonstrates that the item (which includes the originating category and the information objects in it) is associated with other categories of interest within the recommendation system. Rucker therefore satisfies this step.

10. The method of claim 9, wherein the item is associated with a category of interest identified by the source of the indication of current interest.

As shown above, claim 9 is anticipated by Rucker. Rucker also discloses the item is associated with a category of interest identified by the source of the indication of current interest (e.g. the "originating user" in Rucker).

As explained in connection with claim 3 above, whenever an originating user submits an information object (such as a document) to the recommendation system, the system requires that the originating user specify a category to which it relates:

> Each recommended information object delivered to the target user was submitted to the recommendation system by one or more "originating users". For each originating user the information object was submitted in the context of a particular category, referred to as the "originating category". As well as delivering recommended information objects, at step 408 the recommendation system will additionally deliver identifiers of the originating categories and originating users.

Rucker, Col. 5, line 65-Col. 6, line 2 (emphasis added).

11. The method of claim 3, wherein the item is one of a plurality of items of current interest, further comprising:

As shown above, claim 3 is anticipated by Rucker. Rucker discloses that the item to be recommended to the user is one of a plurality of items of current interest:

> The present invention provides an efficient means for presenting a user with recommendations relevant to their current tasks and activities. These recommendations take the form of information objects, other users of the recommendation system who are pursuing or have completed similar tasks or activities, or categories of information objects other users of the system have gathered in the past.

Rucker, Col. 2, lines 8-14 (emphasis added).

associating the item with a category of interest to which the item relates;

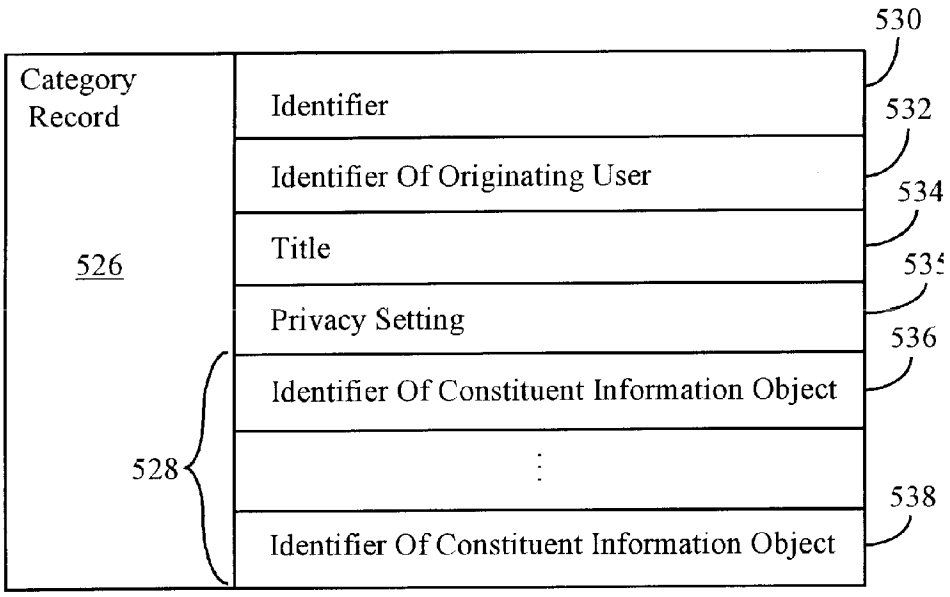
Rucker discloses that the item is associated with a category of interest to which the item relates, as explained below.

As explained in connection with claim 3 above, whenever an originating user submits an information object (such as a document) to the recommendation system, the system requires that it be associated with a category to which it relates:

> Each recommended information object delivered to the target user was submitted to the recommendation system by one or more "originating users". For each originating user the information object was submitted in the context of a particular category, referred to as the "originating category". As well as delivering recommended information objects, at step 408 the recommendation system will additionally deliver identifiers of the originating categories and originating users.

Rucker, Col. 5, line 65-Col. 6, line 2 (emphasis added).

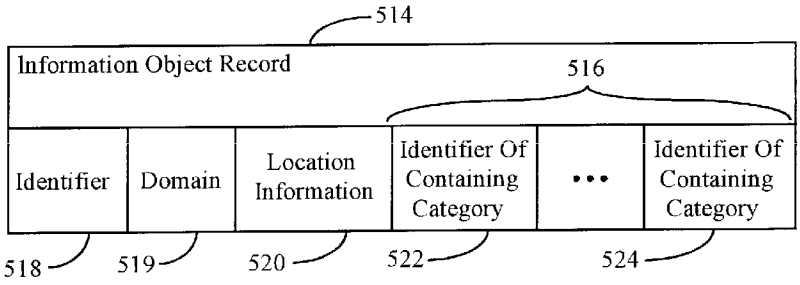
Each category record in Rucker includes information identifying each information object ("constituent information object") within that category, as illustrated in Figure 5 (528, 536-538):



Rucker – Figure 5

See Rucker, Figure 5 (526) *and* Col. 9, lines 32-52 (describing Category Record 526).

The record for each "constituent information object," in turn, records all of the categories in which the object is contained:



Rucker – Figure 5

See Rucker, Figure 5 (514) *and* Col. 9, lines 14-31 (describing Information Object Record 514). The information objects and categories are, therefore, "cross-linked" to each other:

> Each identifier in subfields 536 ... 538 [of the Category Record 526] is sufficient to uniquely determine an information object record, and that corresponding information object record in turn identifies an identifier to this category record thus cross-linking the two.

Rucker, Col. 9, lines 48-52.

This cross-linking demonstrates that the item (which includes the originating category and the information objects in it) is associated with other categories of interest within the recommendation system. Rucker therefore satisfies this step.

receiving from the participant a selection of one or more categories of interest to the participant; and

Rucker discloses receiving from the participant a selection of a category of interest to the participant (e.g., one or more "target categories" selected by the "target user" to whom recommendations will be provided). In particular, the "target user" must submit a category of interest to the recommendation system (known as a "target category"):

> In this scenario, user Wilma has a task of "investigating the pager market" with the following example demonstrating how the recommendation service of the present invention helps Wilma with this information seeking task. In the following discussion, Wilma is the "target user" that has requested the recommendation system of the present invention to search for additional objects that fit within the specified category that Wilma has created, and "pagers" (310) is the target category.
>
> On her client terminal 104x (e.g., a personal computer), Wilma has created an electronic folder, or category 310, to contain references to discovered documents pertaining to the task "investigating the pager market". Step 402 of FIG. 4 illustrates Wilma's submission of category 310 to the recommendation system, giving it the title "Pagers".

Rucker, Col, 4, lines 42-56 (emphasis added).

identifying all items of current interest within the selected categories.

Rucker discloses identifying all items of current interest within the selected categories (*e.g.*, within the "target category" submitted by the participant). As explained in more detail in connection with claim 3 above, the system in Rucker identifies all "matching categories," *i.e.* all originating categories in which at least one object matches an object in the participant's "target category." *See* Rucker, Col. 13, lines 11-14 ("The 'match count' for a category denotes how many matching information objects there are between that category and the 'target category'.") *and* Col. 13, lines 35-37 ("Each new category is added to the 'matching categories list' in step

814 exactly once…"). The result of the process is a "matching categories list," *i.e.* a list of all categories that match the selected category:

> At step 824, the flowchart 800 of FIG. 8 is complete, and assembly of the "matching categories list" together with a "match count" for each matching category has been accomplished.
>
> Returning to flowchart 700 of FIG. 7, execution of step 710 is thus completed and the decision flow proceeds to step 712. In step 712, a decision loop is begun to examine all of the "matching categories" from the list created in step 814, together with the associated "match count".

Rucker, Col. 13, lines 52-60 (emphasis added).

The system in Rucker then identifies all unmatched information objects within each "matching category" (e.g., information objects not yet known to the participant) to narrow down and identify the object(s) and categor(ies) to present to the participant:

> At step 712 the first category from the list of "Matching categories" is set equal to the "current matching category". Then at step 714, another decision loop is begun to calculate a score for each unmatched information object identified by each category identified in the list created in step 814 as it cycles through as the "current matching category". Note, an unmatched information object is an information object which is linked with at least one matching category in the list from step 814, but is not also linked with the target category. Also note that an unmatched information object may occur in more than one matching category. Thus, in a preferred embodiment, a score for an unmatched information object is calculated by summing the match counts for each matching category in which it occurs. Then, all of the unmatched information objects and their associated scores are added to a "recommendations list".

Rucker, Col. 14, lines 1-15 (emphasis added).

Identifying all "matching categories," and then calculating a score for "all unmatched information objects," *id.*, confirms that Rucker discloses the step of "identifying all items of current interest within the selected categories

12. The method of claim 11, further comprising: ranking the identified items of current interest; and

As explained above, claim 11 is anticipated by Rucker. Rucker discloses ranking the identified items of current interest. This occurs by using the calculated "score" for the items

(discussed above) and creating an ordered "recommendations list" in which higher scoring items appear before items that received lower scores: "At step 720, the 'recommendations list' of information objects is sorted by the score assigned to each in step 714." Rucker, Col. 14, lines 32-33 (emphasis added).

sending to the participant a list of items of current interest in rank order, the list including at least one of the identified items of current interest.

Rucker discloses sending to the participant a list of items of current interest in rank order the list including at least one of the items of current interest. In particular, the "recommendations list" discussed above is sent to the participant in rank order such that higher scoring items appear first. The list includes at least one of identified items of current interest (e.g., the originating category and information object contained within it):

> At step 720, the "recommendations list" of information objects is sorted by the score assigned to each in step 714. Then, at step 722, information objects from the "recommendations list" are provided to the "target user" in the context of the "current target category". These recommendations, at least initially, will consist of the top scoring information objects from the "recommendations list". In addition, for each recommended information object, the corresponding score, and a list of all of the originating categories and users who submitted them are also provided to the "target user".

Rucker, Col. 14, lines 32-41 (emphasis added).

13. The method of claim 12, wherein the ranking of each item is based, at least in part, on the extent to which the categories selected by the participant match the categories associated with the item.

As shown above, claim 12 is anticipated by Rucker. Rucker further discloses that the ranking of each item (recited in claim 12) is based, at least in part, on the extent to which the categories selected by the participant (*e.g.*, the "target category") matches the categories (*e.g.*, the "originating categories") associated with the item.

As explained in more detail in connection with claim 3 above, the system in Rucker identifies all "matching categories," *i.e.* all originating categories in which at least one object matches an object in the participant's "target category." *See* Rucker, Col. 13, lines 11-14 ("The 'match count' for a category denotes how many matching information objects there are between that category and the 'target category'.") *and* Col. 13, lines 35-37 ("Each new category is added

to the 'matching categories list' in step 814 exactly once…"). The result of the process is a "matching categories list," *i.e.* a list of all categories that match the selected category:

> At step 824, the flowchart 800 of FIG. 8 is complete, and assembly of the "matching categories list" together with a "match count" for each matching category has been accomplished.
>
> Returning to flowchart 700 of FIG. 7, execution of step 710 is thus completed and the decision flow proceeds to step 712. In step 712, a decision loop is begun to examine all of the "matching categories" from the list created in step 814, together with the associated "match count".

Rucker, Col. 13, lines 52-60 (emphasis added).

The system in Rucker then identifies all unmatched information objects within each "matching category" (e.g., objects not yet known to the participant) to rank each item:

> At step 712 the first category from the list of "Matching categories" is set equal to the "current matching category". Then at step 714, another decision loop is begun to calculate a score for each unmatched information object identified by each category identified in the list created in step 814 as it cycles through as the "current matching category". Note, an unmatched information object is an information object which is linked with at least one matching category in the list from step 814, but is not also linked with the target category. Also note that an unmatched information object may occur in more than one matching category. Thus, in a preferred embodiment, a score for an unmatched information object is calculated by summing the match counts for each matching category in which it occurs. Then, all of the unmatched information objects and their associated scores are added to a "recommendations list".

Rucker, Col. 14, lines 1-15 (emphasis added).

Identifying all "matching categories," and then calculating a score for "all unmatched information objects," *id.*, confirms that Rucker discloses the step of ranking each item "based, at least in part, on the extent to which the categories selected by the participant match the categories associated with the item," as recited in this claim.

16. The method of claim 3, wherein the item is identified by a Uniform Resource Locator (URL).

As shown above, claim 3 is anticipated by Rucker. Rucker further discloses that the item is identified by a Uniform Resource Locator (URL):

> To enable a target user to identify and locate a copy of a recommended object, unique object identifiers are recommended as references to information objects, particularly if the originating user has elected to not be identified to a target user together with recommended objects, e.g., Uniform Resource Locators (URLs) which are commonly used as location pointers to World-Wide Web pages; ISBN numbers, or complete title, author and publisher for books; or periodical volume number and page for published articles.

Rucker, Col. 7, lines 27-36 (emphasis added).

17. The method of claim 3, further comprising storing data relating to the indication in a database.

As shown above, claim 3 is anticipated by Rucker. Rucker further discloses the storage of data relating to the indication (e.g., the submission of a category to the recommendation system) in a database. *See e.g.*, Rucker , Col. 4, lines 54-63 ("Step 402 of FIG. 4 illustrates Wilma's submission of category 310 to the recommendation system, giving it the title 'Pagers'. Category 310 is the representation of this category within the database accessible by the recommendation system. In the normal course of work, Wilma has discovered two relevant documents, or information objects, 'B' (318) and 'C' (320) related to 'pagers'. Correspondingly, category 310 is linked to record 318 for information object 'B' and record 320 for information object 'C'.") (emphasis added).

20. The method of claim 3, further comprising providing one or more participants with an interface to send an indication that an item is of current interest.

As shown above, claim 3 is anticipated by Rucker. Rucker also discloses providing one or more participants with an interface (e.g., a user interface through a computer) to send an indication that an item is of current interest. Specifically, Rucker discloses that the participant can submit a category to the recommendation system by creating an "electronic folder" through a user interface using a personal computer:

> On her client terminal 104x (e.g., a personal computer), Wilma has created an electronic folder, or category 310, to contain references to discovered documents pertaining to the task "investigating the pager market". Step 402 of FIG. 4 illustrates Wilma's submission of category 310 to the recommendation system, giving it the title "Pagers". Category 310 is the representation of this category within the database accessible by the recommendation system.

Rucker, Col. 4, lines 51-56 (emphasis added).

F. CLAIMS 1-5, 8-10, 16-17, AND 20 ARE ANTICIPATED BY SHEENA UNDER 35 U.S.C. § 102

Requesters respectfully submit that Sheena anticipates claims 1-5, 8-10, 16-17, and 20 and therefore renders them invalid under 35 U.S.C. § 102(e). A detailed explanation of the pertinence and manner of applying Sheena to these claims is set forth below and in the attached claim chart (Exhibit CC-F).

Please see attached Claim Chart, Exhibit CC-F, for a comparison of Claims 1-5, 8-10, 16-17, and 20 of the '682 Patent with Sheena

1. A system for disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, comprising:

Sheena discloses a system for disseminating to a participant an indication (e.g., recommendation) that an item accessible by the participant (e.g., user) via a network (e.g., the Internet) is of current interest. *See* Sheena, Col. 25, lines 57-59 ("An apparatus may be provided to recommend items to a user. The apparatus, as shown in FIG. 4 has a memory element 12 for storing user and item profiles.") (emphasis added).

The system disclosed in Sheena recommends items of "current interest" by giving more weight to newer recommendations than to older recommendations. *See* Sheena, Col. 13, lines 51-54. ("In this embodiment, the additional information may indicate that a rating is possibly invalid or old, and could result in that rating being weighted less than other ratings.") (emphasis added).

The system disclosed in Sheena is accessible via a network (e.g., the Internet). *See* Sheena, Col. 26, lines 43-48. ("FIG. 5 shows the Internet system on which an embodiment of the method and apparatus may be used. The server 40 is an apparatus as shown in FIG. 4, and it is preferred that server 40 displays a World Wide Web Page when accessed by a user via Internet 42.")

a computer configured to receive in real time from a source other than the participant an indication that the item is of current interest;

Sheena discloses a computer (e.g., server 40) configured to receive in real time from a source other than the participant (e.g., other users) an indication that the item is of current interest (e.g., entry of a rating for the item), giving the claim language its broadest reasonable construction. *See* Sheena, Col. 26, lines 14-16 ("In some embodiments a receiving means is included in the apparatus (not shown in FIG. 4). Receiving means is any device which receives ratings for items from users.") These indications can be received at the time the other users select a rating:

> Ratings for items which are received from users can be of any form that allows users to record subjective impressions of items based on their experience of the item. Ratings can be received from users singularly or in batches, and may be received from any number of users simultaneously.

Sheena, Col. 4, lines 21-23, 37-39 (emphasis added).

process the indication;

Sheena discloses processing the indication (e.g., entry of a rating for the item). *See* Sheena, Col. 7, line 66-Col. 8, line 1 ("Whenever a user's profile is updated with new rating-item n-tuple, new similarity factors between the user and other users of this system may be calculated.").

determine an intensity value to be associated with the indication and an intensity weight value, and

Sheena discloses determining "an intensity value to be associated with the indication" and "an intensity weight value" (a phrase that does not appear in the specification), giving this claim language its broadest reasonable construction. The "**intensity value**" can take the form of, for example, a weight assigned to neighboring users for the indication (e.g., the rating provided by the user):

> Once a set of neighboring users is chosen, a weight is assigned to each of the neighboring users (step 108). In one embodiment, the weights are assigned by subtracting the similarity factor calculated for each neighboring user from the threshold value and dividing by the threshold value. This provides a user weight that is higher, i.e. closer to one, when the similarity factor between two users is smaller. Thus, similar users are weighted more heavily than other, less similar, users.

Sheena, Col. 11, lines 26-34 (emphasis added).

The "intensity value" is updated every time a user provides an indication of interest (e.g., entry of a rating for an item). *See* Sheena, Col. 11, lines 6-7 ("A user's neighboring user set should be updated each time a new rating is entered by, or inferred from, that user.").

The "**intensity weight value**," under its broadest reasonable construction, can take the form of, for example, the total number of ratings for the item. *See* Sheena, Col. 12, lines 44-46 ("In order to update the first user's similarity factors, the system accesses that item's profile and determines that 3,775 other users of the system have also rated that item.").

Alternatively, the "**intensity value**" can take the form of the rating provided by the rating user:

> Ratings for items which are received from users can be of any form that allows users to record subjective impressions of items based on their experience of the item. For example, items may be rated on an alphabetic scale ("A" to "F") or a numerical scale (1 to 10). In one embodiment, ratings are integers between 1 (lowest) and 7 (highest).

Sheena, Col. 4, lines 21-26 (emphasis added).

adjusting the intensity value based on a characteristic for the item provided by the source;

Sheena discloses "adjusting the intensity value based on a characteristic for the item provided by the source," giving the claim language its broadest reasonable construction. For example, Sheena discloses the adjustment of the "intensity value" (e.g., the weights assigned to neighboring users) based on a characteristic for the item provided by the source (e.g., rating provided by the rating user):

> The item to be recommended may be selected in any fashion, so long as the ratings of the neighboring users, their assigned weights, and the confidence factors, if any, are taken into account. In one embodiment, a rating is predicted for each item that has not yet been rated by the user. This predicted rating can be arrived at by taking a weighted average of the ratings given to those items by the user's neighboring users.

Sheena, Col. 13, lines 36-43 (emphasis added).

Alternatively, consistent with the position taken by Interval in its infringement contentions, Sheena discloses the adjustment of the "intensity value" (e.g., rating provided by the rating user) based on a characteristic provided by the source (e.g., the weights assigned to

neighboring users).

and; and [SIC] inform the participant that the item is of current interest; and

Sheena discloses informing the participant (e.g., the user receiving the recommendation) that the item is of current interest (e.g., recommends the item to the user). *See* Sheena, Col. 26, lines 23-26 ("Also included in the apparatus is means 20 for recommending at least one of the items to the users based on the weights assigned to the users, neighboring users and the ratings given to the item by the users' neighboring users.").

a database, associated with the computer, configured to store data relating to the item.

Sheena discloses a database, associated with the computer, configured to store data relating to the item (e.g., item profiles). *See* Sheena, Col. 4, lines 56-60 ("Profiles for each item that has been rated by at least one user may also be stored in memory. Each item profile records how particular users have rated this particular item. Any data construct that associates ratings to the item with the user assigning the rating can be used.") (emphasis added).

2. A computer program product for disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, the computer program product being embodied in a computer readable medium and comprising computer instructions for:

Claim 2 is substantially similar to claim 1, except that claim 2 is directed to a computer program product whereas claim 1 is directed to a system. As explained above with respect to claim 1, Sheena discloses a system for disseminating to a participant an indication that an item accessible by the participant via a network is of current interest. *See* disclosures for claim 1, above. The system in Sheena also includes a computer program product being embodied in a computer readable medium and comprising computer instructions:

> The methods described above can be provided as software on any suitable medium that is readable by a computing device. The software programs means may be implemented in any suitable language such as, C, C++, PERL, LISP, ADA, assembly language or machine code. The suitable media may be any device capable of storing program means in a computer-readable fashion such as a floppy disk, a hard disk, an optical disk, a CD-ROM, a magnetic tape, a memory card, or a removable magnetic drive.

Sheena, Col. 25, lines 48-56.

As explained above in connection with claim 1, Sheena discloses disseminating to a participant an indication (e.g., recommendation) that an item accessible by the participant (e.g., user) via a network (e.g., the Internet) is of current interest. *See* Sheena, Col. 25, lines 57-59 ("An apparatus may be provided to recommend items to a user. The apparatus, as shown in FIG. 4 has a memory element 12 for storing user and item profiles.") (emphasis added).

Sheena provides for recommending items of current interest by giving more weight to newer recommendations than to older recommendations. *See* Sheena, Col. 13, lines 51-54. ("In this embodiment, the additional information may indicate that a rating is possibly invalid or old, and could result in that rating being weighted less than other ratings.") (emphasis added).

Sheena discloses the ability to access recommended items via a network (e.g., the Internet). *See* Sheena, Col. 26, lines 43-48. ("FIG. 5 shows the Internet system on which an embodiment of the method and apparatus may be used. The server 40 is an apparatus as shown in FIG. 4, and it is preferred that server 40 displays a World Wide Web Page when accessed by a user via Internet 42.")

receiving in real time from a source other than the participant an indication that the item is of current interest;

As explained above with respect to claim 1, Sheena discloses receiving in real time from a source other than the participant (e.g., other users) an indication that the item is of current interest (e.g., entry of a rating for the item), giving the claim language its broadest reasonable construction. *See* Sheena, Col. 26, lines 14-16 ("In some embodiments a receiving means is included in the apparatus (not shown in FIG. 4). Receiving means is any device which receives ratings for items from users.") These indications can be received at the time the other users select a rating:

> Ratings for items which are received from users can be of any form that allows users to record subjective impressions of items based on their experience of the item. Ratings can be received from users singularly or in batches, and may be received from any number of users simultaneously.

Sheena, Col. 4, lines 21-23, 37-39 (emphasis added).

processing the indication;

As explained above with respect to claim 1, Sheena discloses processing the indication (e.g., entry of a rating for the item). *See* Sheena, Col. 7, line 66-Col. 8, line 1 ("Whenever a user's profile is updated with new rating-item n-tuple, new similarity factors between the user and other users of this system may be calculated.").

determining an intensity value to be associated with the indication and an intensity weight value, and

As explained above with respect to claim 1, Sheena discloses determining "an intensity value to be associated with the indication" and "an intensity weight value" (a phrase that does not appear in the specification), giving this claim language its broadest reasonable construction. The "**intensity value**" can take the form of, for example, a weight assigned to neighboring users for the indication (e.g., the rating provided by the user):

> Once a set of neighboring users is chosen, a weight is assigned to each of the neighboring users (step 108). In one embodiment, the weights are assigned by subtracting the similarity factor calculated for each neighboring user from the threshold value and dividing by the threshold value. This provides a user weight that is higher, i.e. closer to one, when the similarity factor between two users is smaller. Thus, similar users are weighted more heavily than other, less similar, users.

Sheena, Col. 11, lines 26-34 (emphasis added).

The "intensity value" is updated every time a user provides an indication of interest (e.g., entry of a rating for an item). *See* Sheena, Col. 11, lines 6-7 ("A user's neighboring user set should be updated each time a new rating is entered by, or inferred from, that user.").

The "**intensity weight value**," under its broadest reasonable construction, can take the form of, for example, the total number of ratings for the item. *See* Sheena, Col. 12, lines 44-46 ("In order to update the first user's similarity factors, the system accesses that item's profile and determines that 3,775 other users of the system have also rated that item.").

Alternatively, the "**intensity value**" can take the form of the rating provided by the rating user:

> Ratings for items which are received from users can be of any form that allows users to record subjective impressions of items based on their experience of the item. For example, items may be rated on an alphabetic scale ("A" to "F") or a numerical scale (1 to 10). In one embodiment, ratings are integers between 1 (lowest) and 7 (highest).

Sheena, Col. 4, lines 21-26 (emphasis added).

adjusting the intensity value based on a characteristic for the item provided by the source; and

As explained above with respect to claim 1, Sheena discloses "adjusting the intensity value based on a characteristic for the item provided by the source," giving the claim language its broadest reasonable construction. For example, Sheena discloses the adjustment of the "intensity value" (e.g., the weights assigned to neighboring users) based on a characteristic for the item provided by the source (e.g., rating provided by the rating user):

> The item to be recommended may be selected in any fashion, so long as the ratings of the neighboring users, their assigned weights, and the confidence factors, if any, are taken into account. In one embodiment, a rating is predicted for each item that has not yet been rated by the user. This predicted rating can be arrived at by taking a weighted average of the ratings given to those items by the user's neighboring users.

Sheena, Col. 13, lines 36-43 (emphasis added).

Alternatively, consistent with the position taken by Interval in its infringement contentions, Sheena discloses the adjustment of the "intensity value" (e.g., rating provided by the rating user) based on a characteristic provided by the source (e.g., the weights assigned to neighboring users).

informing the participant that the item is of current interest.

As explained above with respect to claim 1, Sheena discloses informing the participant (e.g., the user receiving the recommendation) that the item is of current interest (e.g., recommends the item to the user). *See* Sheena, Col. 26, lines 23-26 ("Also included in the apparatus is means 20 for recommending at least one of the items to the users based on the weights assigned to the users, neighboring users and the ratings given to the item by the users' neighboring users.").

3. A method of disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, comprising:

Claim 3 of the '682 patent is substantially similar to claim 1, except that claim 3 is directed to a method whereas claim 1 is directed to a system. As explained above with respect to claims 1 and 2, Sheena discloses disseminating to a participant an indication (e.g., recommendation) that an item accessible by the participant (e.g., user) via a network (e.g., the

Internet) is of current interest. *See* Sheena, Col. 25, lines 57-59 ("An apparatus may be provided to recommend items to a user. The apparatus, as shown in FIG. 4 has a memory element 12 for storing user and item profiles.") (emphasis added).

Sheena provides for recommending items of current interest by giving more weight to newer recommendations than to older recommendations. *See* Sheena, Col. 13, lines 51-54. ("In this embodiment, the additional information may indicate that a rating is possibly invalid or old, and could result in that rating being weighted less than other ratings.") (emphasis added).

Sheena discloses the ability to access recommended items via a network (e.g., the Internet). *See* Sheena, Col. 26, lines 43-48. ("FIG. 5 shows the Internet system on which an embodiment of the method and apparatus may be used. The server 40 is an apparatus as shown in FIG. 4, and it is preferred that server 40 displays a World Wide Web Page when accessed by a user via Internet 42.")

receiving in real time from a source other than the participant an indication that the item is of current interest;

As explained above with respect to claims 1 and 2, Sheena discloses receiving in real time from a source other than the participant (e.g., other users) an indication that the item is of current interest (e.g., entry of a rating for the item), giving the claim language its broadest reasonable construction. *See* Sheena, Col. 26, lines 14-16 ("In some embodiments a receiving means is included in the apparatus (not shown in FIG. 4). Receiving means is any device which receives ratings for items from users.") These indications can be received at the time the other users select a rating:

> Ratings for items which are received from users can be of any form that allows users to record subjective impressions of items based on their experience of the item. Ratings can be received from users singularly or in batches, and may be received from any number of users simultaneously.

Sheena, Col. 4, lines 21-23, 37-39 (emphasis added).

processing the indication;

As explained above with respect to claims 1 and 2, Sheena discloses processing the indication (e.g., entry of a rating for the item). *See* Sheena, Col. 7, line 66-Col. 8, line 1 ("Whenever a user's profile is updated with new rating-item n-tuple, new similarity factors between the user and other users of this system may be calculated.").

determine an intensity value to be associated with the indication and an intensity weight value, and

As explained above with respect to claims 1 and 2, Sheena discloses determining "an intensity value to be associated with the indication" and "an intensity weight value" (a phrase that does not appear in the specification), giving this claim language its broadest reasonable construction. The "**intensity value**" can take the form of, for example, a weight assigned to neighboring users for the indication (e.g., the rating provided by the user):

> Once a set of neighboring users is chosen, a weight is assigned to each of the neighboring users (step 108). In one embodiment, the weights are assigned by subtracting the similarity factor calculated for each neighboring user from the threshold value and dividing by the threshold value. This provides a user weight that is higher, i.e. closer to one, when the similarity factor between two users is smaller. Thus, similar users are weighted more heavily than other, less similar, users.

Sheena, Col. 11, lines 26-34 (emphasis added).

The "intensity value" is updated every time a user provides an indication of interest (e.g., entry of a rating for an item). *See* Sheena, Col. 11, lines 6-7 ("A user's neighboring user set should be updated each time a new rating is entered by, or inferred from, that user.").

The "**intensity weight value**," under its broadest reasonable construction, can take the form of, for example, the total number of ratings for the item. *See* Sheena, Col. 12, lines 44-46 ("In order to update the first user's similarity factors, the system accesses that item's profile and determines that 3,775 other users of the system have also rated that item.").

Alternatively, the "**intensity value**" can take the form of the rating provided by the rating user:

> Ratings for items which are received from users can be of any form that allows users to record subjective impressions of items based on their experience of the item. For example, items may be rated on an alphabetic scale ("A" to "F") or a numerical scale (1 to 10). In one embodiment, ratings are integers between 1 (lowest) and 7 (highest).

Sheena, Col. 4, lines 21-26 (emphasis added).

adjusting the intensity value based on a characteristic for the item provided by the source;

As explained above with respect to claims 1 and 2, Sheena discloses "adjusting the intensity value based on a characteristic for the item provided by the source," giving the claim

language its broadest reasonable construction. For example, Sheena discloses the adjustment of the "intensity value" (e.g., the weights assigned to neighboring users) based on a characteristic for the item provided by the source (e.g., rating provided by the rating user):

> The item to be recommended may be selected in any fashion, so long as the ratings of the neighboring users, their assigned weights, and the confidence factors, if any, are taken into account. In one embodiment, a rating is predicted for each item that has not yet been rated by the user. This predicted rating can be arrived at by taking a weighted average of the ratings given to those items by the user's neighboring users.

Sheena, Col. 13, lines 36-43 (emphasis added).

Alternatively, consistent with the position taken by Interval in its infringement contentions, Sheena discloses the adjustment of the "intensity value" (e.g., rating provided by the rating user) based on a characteristic provided by the source (e.g., the weights assigned to neighboring users).

informing the participant that the item is of current interest.

As explained above with respect to claims 1 and 2, Sheena discloses informing the participant (e.g., the user receiving the recommendation) that the item is of current interest (e.g., recommends the item to the user). *See* Sheena, Col. 26, lines 23-26 ("Also included in the apparatus is means 20 for recommending at least one of the items to the users based on the weights assigned to the users, neighboring users and the ratings given to the item by the users' neighboring users.").

4. The method of claim 3, wherein processing the indication comprises determining the intensity value for the indication based on at least one attribute of the indication, the intensity value representing the weight that will be given to the indication.

As shown above, claim 3 is anticipated by Sheena. Sheena also discloses that processing the indication (e.g., entry of a rating for the item) comprises determining an "intensity value" to be associated with the indication (e.g., weight assigned to neighboring user) based on at least one attribute of the indication (e.g., who the indication was entered by), the "intensity value" representing the weight that will be given to the indication (e.g. the neighboring user's rating), giving the claim language its broadest reasonable construction:

> Once a set of neighboring users is chosen, a weight is assigned to each of the neighboring users (step 108). In one embodiment, the weights are assigned by

> subtracting the similarity factor calculated for each neighboring user from the threshold value and dividing by the threshold value. This provides a user weight that is higher, i.e. closer to one, when the similarity factor between two users is smaller. Thus, similar users are weighted more heavily than other, less similar, users….The weights assigned to such users may be adjusted accordingly to enhance the recommendations given to the user.

Sheena, Col. 11, lines 26-34, 42-44.

The "intensity value" is updated every time a user provides an indication of interest (e.g., entry of a rating for an item). *See* Sheena, Col. 11, lines 6-7 ("A user's neighboring user set should be updated each time a new rating is entered by, or inferred from, that user.").

5. The method of claim 4, wherein processing the indication further comprises calculating an intensity rank for the item based at least in part on the intensity value of the indication, the intensity rank indicating the level of current interest of the item relative to other items.

As shown above, claim 4 is anticipated by Sheena. Sheena also discloses that processing the indication (e.g., entry of a rating for the item) further comprises calculating an "intensity rank" (e.g., predicted rating) for the item based at least in part on the "intensity value" of the indication (e.g. weight assigned to neighboring users), the "intensity rank" indicating the level of current interest relative to other items, giving the claim language its broadest reasonable construction:

> [A] rating is predicted for each item that has not yet been rated by the user. This predicted rating can be arrived at by taking a weighted average of the ratings given to those items by the user's neighboring users. A predetermined number of items may then be recommended to the user based on the predicted ratings….The predetermined number of items to recommend can be selected such that those items having the highest predicted rating are recommended to the user.

Sheena, Col. 13, lines 39-45, 59-61.

8. The method of claim 3, further comprising receiving data identifying the source of the indication.

As shown above, Claim 3 is anticipated by Sheena. Sheena also discloses the step of receiving data identifying the source of the indication. *See* Sheena, Col. 2, lines 11-13, ("The method begins by storing a user profile in a memory by writing user profile data to a memory management data object.") (emphasis added). *See also* Sheena, Col. 3, lines 34-35, ("Each user profile associates items with the ratings given to those items by the user.").

9. The method of claim 3, further comprising associating the item with a category of interest to which the item relates.

As shown above, Claim 3 is anticipated by Sheena. Sheena also discloses associating the item with a category of interest (e.g., group or concept) to which the item relates. *See* Sheena, Col. 14, lines 29-38 ("In one embodiment, items are grouped in order to help predict ratings and increase recommendation certainty. For example, in the broad domain of music, recordings may be grouped according to various genres, such as "opera," "pop," "rock," and others.") (emphasis added).

10. The method of claim 9, wherein the item is associated with a category of interest identified by the source of the indication of current interest.

As shown above, Claim 9 is anticipated by Sheena. Furthermore, Sheena discloses the associating of the item with a category of interest (e.g., group or concept) identified by the source of the indication of current interest (e.g., the rating user):

> In one embodiment, items are grouped in order to help predict ratings and increase recommendation certainty. For example, in the broad domain of music, recordings may be grouped according to various genres, such as "opera," "pop," "rock," and others. Groups, or "concepts," are used to improve performance because predictions and recommendations for a particular item may be made based only on the ratings given to other items within the same group. Groups may be determined based on information entered by the users.

Sheena, Col. 14, lines 29-38 (emphasis added).

16. The method of claim 3, wherein the item is identified by a Uniform Resource Locator (URL).

As shown above, Claim 3 is anticipated by Sheena. Sheena also discloses that the item is identified by a Uniform Resource Locator (URL) (e.g., an item may be a World Wide Web page):

> As referred to in this description, items to be recommended can be items of any type that a user may sample in a domain. When reference is made to a "domain," it is intended to refer to any category or subcategory of ratable items, such as sound recordings, movies, restaurants, vacation destinations, novels, or World Wide Web pages.

Sheena, Col. 3, lines 3-8 (emphasis added).

17. The method of claim 3, further comprising storing data relating to the indication in a database.

As shown above, Claim 3 is anticipated by Sheena. Sheena also discloses storing data relating to the indication in a database. *See* Sheena, Col. 4, lines 56-60, ("Profiles for each item that has been rated by at least one user may also be stored in memory. Each item profile records how particular users have rated this particular item. Any data construct that associates ratings to the item with the user assigning the rating can be used.") (emphasis added).

20. The method of claim 3, further comprising providing one or more participants with an interface to send an indication that an item is of current interest.

As shown above, Claim 3 anticipated by Sheena. Sheena also discloses providing one or more participants (e.g., users) with an interface (e.g., a page on the World Wide Web) to send an indication that an item is of current interest (e.g., entry of a rating for the item). *See e.g.*, Sheena, Col. 4, lines 21-23, ("Ratings for items which are received from users can be of any form that allows users to record subjective impressions of items based on their experience of the item".) (emphasis added); *see also* Sheena, Col. 4, lines 32-37, ("In one embodiment, ratings are received as input to a World Wide Web page. In this embodiment, the user positions a cursor on a World Wide Web page with an input device such as a mouse or trackball. Once the cursor is properly positioned, the user indicates a rating by using a button on the input device to select a rating to enter.") (emphasis added).

G. CLAIMS 6-7 AND 11-13 ARE OBVIOUS OVER SHEENA IN VIEW OF BEZOS

Requesters respectfully submit that claims 6-7 and 11-13 are obvious over Sheena in view of Bezos under 35 U.S.C. § 103(a). A detailed explanation of the pertinence and manner of applying this combination to these claims is set forth below and in the attached claim chart (Exhibit CC-G).

Please see attached Claim Chart, Exhibit CC-G, for a comparison of Claims 6-7 and 11-13 of the '682 Patent with Sheena in View of Bezos

Sheena anticipates claims 1-5, 8-10, 16-17, and 20 for the reasons expressed in Part VII.F above. As to dependent claims 6-7 and 11-13, these claims are obvious under § 103(a) over Sheena in view of Bezos.

An invention is not entitled to patent protection if "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." 35 U.S.C. § 103(a). In making an obviousness determination, "a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions." *KSR Int'l Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 1740 (2007). In *KSR*, the Supreme Court rejected the "rigid approach" of the former "teaching-suggestion-motivation to combine" or "TSM" test. *Id.* at 1739.

After the Supreme Court's decision in *KSR*, the PTO issued "Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in view of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.*" 72 Fed. Reg. 57,526 (Oct. 10, 2007) ("Examination Guidelines"). According to the Examination Guidelines, "the Supreme Court particularly emphasized 'the need for caution in granting a patent based on the combination of elements found in the prior art.'" *Id.* The Examination Guidelines state that "the focus when making a determination of obviousness should be on what a person of ordinary skill in the pertinent art would have known at the time of the invention, and on what such a person would have

reasonably expected to have been able to do in view of that knowledge." *Id.* at 57,527. The Supreme Court further stated that "in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle." *KSR*, 127 S.Ct. at 1742.

It would have been obvious to one of ordinary skill in the art to combine Sheena with Bezos to provide the alleged inventions recited in claims 6-7 and 11-13. Both references provide solutions to the same problems purportedly addressed in the '682 patent. In particular, both Sheena and Bezos disclose systems for receiving indications of interest received from sources other than the user, determining and adjusting values to be associated with those indications, and disseminating recommendations to a user based on those indications of interest. Sheena and Bezos also disclose organizing those items into categories so users can receive targeted recommendations within a desired category of interest. A person of ordinary skill in the art could easily have substituted any implementation detail or feature in Sheena for one disclosed in Bezos to yield results that would have been predictable to one of ordinary skill in the art.

Claim 6 and 11 of the '682 patent relates to associating items to categories, and allowing users to select categories of interest and receive recommendations from those selected categories. It would have been obvious to one of ordinary skill in the art to add that capability (disclosed in Bezos) to the system disclosed in Sheena. Sheena already discloses associating items with categories, so a skilled artisan would have been motivated to add the capability for a user to select one or more categories from which to receive recommendations.

With respect to claim 7 of the '682 patent, which depends from independent claim 3, it recites nothing more the trivial act of "receiving a comment relating to the item." It would have been obvious to one of ordinary skill in the art to add that capability (disclosed in Bezos) to the system provided in Sheena. A skilled artisan would be motivated to add this feature to Sheena, for example, so richer user feedback about an item could be captured beyond the scaled numerical or alphabetical rankings disclosed in Sheena.

Claims 12 and 13 relate to ranking the identified items of interest and are fully disclosed in Bezos. *See* '682 patent, Claim 12 ("The method of claim 11, further comprising: ranking the identified items of current interest; and sending to the participant a list of items of current interest in rank order, the list including at least one of the identified items of current interest."), Claim 13 ("The method of claim 12, wherein the ranking of each item is based, at least in part, on the extent to which the categories selected by the participant match the categories associated with the

item."). Sheena discloses the calculation of predicted ratings for the user based on the ratings of other. *See* Sheena, Col. 13, lines 39-45. It would have been obvious to enhance the system of Sheena by presenting the user's recommendations in the form of a ranked list. A skilled artisan would be motivated to add this capability to Sheena, for example, so items of greater interest to the user (based on their ranking) would be presented to users prior to the presentation of less interesting items.

H. CLAIMS 1-5, 8, 17, AND 20 ARE ANTICIPATED BY ROSE UNDER 35 U.S.C. § 102

Requesters respectfully submit that claims 1-5, 8, 17, and 20 are anticipated by Rose under 35 U.S.C. § 102. A detailed explanation of the pertinence and manner of applying this combination to these claims is set forth below and in the attached claim chart (Exhibit CC-H).

Please see attached Claim Chart, Exhibit CC-H, for a comparison of Claims 1-5, 8, 17, and 20 of the '682 Patent with Rose

1. A system for disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, comprising:

Rose discloses a system for disseminating to a participant an indication (e.g., recommendation) that an item accessible by the participant (e.g., user) via a network (e.g., the global database) is of current interest (e.g., an old recommendation is given less weight than newer recommendations). *See* Rose at Col. 2, lines 31-36, ("When a user accesses the system, the system delivers to that user an identification of those items of information in the global database which are believed to be important to the user. The system may also notify the user when new relevant items become available.") (emphasis added).

Rose provides for recommending items of current interest by giving higher recommendation scores to newer items than to older items. *See* Rose *at* Col. 8, lines 52-53, ("[O]lder items might get lower scores if all other relevant factors were equal.")

The Rose system of disseminating indications occurs via a network. *See* Rose, Col. 3, lines 5-9, ("To facilitate an understanding of the principles of the present invention, they are

described hereinafter with reference to the implementation of the invention in a system having multiple personal computers that are connected via a network.") (emphasis added).

a computer configured to receive in real time from a source other than the participant an indication that the item is of current interest;

Rose discloses a computer (e.g., server 10) configured to receive in real time (e.g., at the time the user selects a rating) from a source other than the participant (e.g., other users) an indication that the item is of current interest (e.g., entry of a 'thumbs-up' or 'thumbs-down' rating for the item), giving the claim language its broadest reasonable construction:

> Located to the right of this information are two icons which permit the user to indicate his or her interest in that particular message. If the user found the message to be of interest, a 'thumbs-up' icon 38 can be selected. Alternatively, if the message was of little or no interest to the user, a 'thumbs-down' icon 40 can be selected. When either of these two icons is selected, the indication provided thereby is forwarded to the server 10 where it is used to update the user profile.

Rose, Col. 5, lines 26-34 (emphasis added).

Rose discloses a computer configured to receive these indications. *See* Rose, Col. 3, lines 43-46 ("The illustrated architecture comprises a client-server arrangement, in which a database of information is stored at a server computer 10 and is accessible through various client computers 12, 14.") (emphasis added).

Rose discloses that indications are received in real time. *See* Rose, Col. 9, lines 36-38 ("The frequency with which rankings are recomputed can also be varied as desired. For example, it can be continual, e.g., each time a user votes on a message.").

process the indication;

Rose discloses processing the indication (e.g., entry of a rating for the item):

> If the user found the message to be of interest, a 'thumbs-up' icon 38 can be selected. Alternatively, if the message was of little or no interest to the user, a 'thumbs-down' icon 40 can be selected. When either of these two icons is selected, the indication provided thereby is forwarded to the server 10 where it is used to update the user profile.

Rose, Col. 5, lines 28-34 (emphasis added).

determine an intensity value to be associated with the indication and an intensity weight value, and

Rose discloses determining "an intensity value to be associated with the indication" and "an intensity weight value" (a phrase that does not appear in the specification), giving this claim language its broadest reasonable construction. The "**intensity value**" can take the form of, for example, a weight assigned to neighboring users for the indication (e.g., the rating provided by the user):

> [T]he prediction of a user's interest in information can be based upon a correlation with the indications provided by other users. Referring to FIG. 6, each time a user retrieves a document and subsequently provides an indication of interest, the result can be stored in a table 42. Using the information in this table, a correlation matrix R can be generated, whose entries indicate the degree of correlation between the various users' interests in commonly retrieved messages.

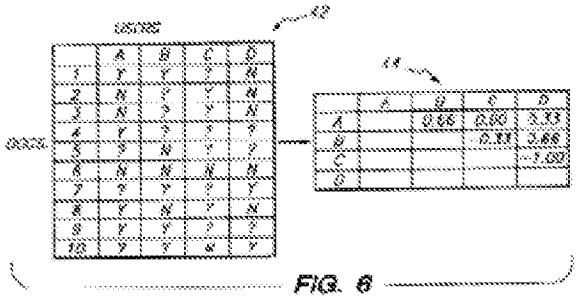


FIG. 6

Rose, Col. 6, line 62 – Col. 7, line 3, and FIG. 6 (emphasis added).

The "**intensity weight value**," giving that term its broadest reasonable construction, can take the form of, for example, the total number of ratings for the item. *See* Rose *at* Col. 6, line 64-67, ("Referring to FIG. 6, each time a user retrieves a document and subsequently provides an indication of interest, the result can be stored in a table 42.") (emphasis added).

Alternatively, the "**intensity value**" can take the form of the rating provided by the rating user:

> Thus, for the corresponding data in FIG. 6, the prediction score for User C regarding Document 1 is as follows:
>
> $$(0.00*1) + (-0.33*1) + (-1.00*-1) = 0.67$$
>
> In this formula, each parenthetical product pertains to one of the other users, i.e., A, B and D, respectively. Within each product, the first value represents the correlation measure between the other user and the current user in question, as shown in the matrix 44. The second value indicates whether the

> other user voted favorably (+1) or negatively (-1) after reading the document, as indicated in the table 42.

Rose at Col. 7, lines 23-33 (emphasis added).

adjusting the intensity value based on a characteristic for the item provided by the source;

Rose discloses "adjusting the intensity value based on a characteristic for the item provided by the source," giving this claim language its broadest reasonable construction. For example, Rose discloses the adjustment of the "intensity value" (e.g., the weights assigned to neighboring users) based on a characteristic for the item provided by the source (e.g., rating provided by the rating user).

> [W]hen a user accesses the system, the feedback table 42 and the correlation matrix 44 are used to predict the likelihood that the user will be interested in any given document. As an example of one of the many different algorithms that can be employed for this purpose, a prediction score, P_{ij} for the i-th user regarding the j-th document, can be computed as:
>
> $$P_{ij} = \sum_{k \neq j} R_{ik} V_{kj}$$
>
> where R_{ik} is the correlation of users i and k, and V_{kj} is the weight indicating the feedback of user k on document j. Thus, for the corresponding data in FIG. 6, the prediction score for User C regarding Document 1 is as follows:
>
> $$(0.00*1) + (-0.33*1) + (-1.00*-1) = 0.67$$
>
> In this formula, each parenthetical product pertains to one of the other users, i.e. A, B and D, respectively. Within each product, the first value represents the correlation measure between the other user and the current user in question, as shown in the matrix 44. The second value indicates whether the other user voted favorably (+1) or negatively (-1) after reading the document, as indicated in the table 42.

Rose, Col. 7, lines 10-33 (emphasis added).

Alternatively, consistent with the position taken by Interval in its infringement contentions, Rose discloses the adjustment of the "intensity value" (e.g., rating provided by the rating user) based on a characteristic provided by the source (e.g., the weights assigned to neighboring users).

and; and [SIC] inform the participant that the item is of current interest; and

Rose discloses informing the participant (e.g., the user receiving the recommendation) that the item is of current interest (e.g., recommends the item to the user):

> When a user accesses the system, the system delivers to that user an identification of those items of information in the global database which are believed to be important to the user. The system may also notify the user when new relevant items become available.

Rose at Col. 2, lines 31-36 (emphasis added).

a database, associated with the computer, configured to store data relating to the item.

Rose discloses a database (e.g., the message database), associated with the computer, configured to store data relating to the item (e.g., title):

> The message database is a global, unstructured database which provides access to all of the stored messages 22 supplied by and to users of the database. In addition, the message database has associated therewith an index 24, which provides a representation of each of the stored messages 22, for example its title. The index can contain other information pertinent to the stored messages as well.

Rose, Col. 4, lines 7-14 (emphasis added).

2. A computer program product for disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, the computer program product being embodied in a computer readable medium and comprising computer instructions for:

Claim 2 is substantially similar to claim 1, except that claim 2 is directed to a computer program product whereas claim 1 is directed to a system. As explained above with respect to claim 1, Rose discloses disseminating to a participant an indication (e.g., recommendation) that an item accessible by the participant (e.g., user) via a network (e.g., the global database) is of current interest (e.g., an old recommendation is given less weight than newer recommendations). *See* Rose at Col. 2, lines 31-36, ("When a user accesses the system, the system delivers to that user an identification of those items of information in the global database which are believed to be important to the user. The system may also notify the user when new relevant items become available.") (emphasis added). Rose discloses the use of a database of information stored at a server computer and accessible through various client computers, which confirms that the system

is embodied in a computer-readable medium and comprises computer instructions for implementing the system. *See* Rose at Col. 3, lines 37-52.

Rose provides for recommending items of current interest by giving higher recommendation scores to newer items than to older items. *See* Rose *at* Col. 8, lines 52-53, ("[O]lder items might get lower scores if all other relevant factors were equal.")

Rose discloses disseminating indications via a network. *See* Rose, Col. 3, lines 5-9, ("To facilitate an understanding of the principles of the present invention, they are described hereinafter with reference to the implementation of the invention in a system having multiple personal computers that are connected via a network.") (emphasis added).

receiving in real time from a source other than the participant an indication that the item is of current interest;

As explained above with respect to claim 1, Rose discloses receiving in real time (e.g., at the time the user selects a rating) from a source other than the participant (e.g., other users) an indication that the item is of current interest (e.g., entry of a 'thumbs-up' or 'thumbs-down' rating for the item), giving the claim language its broadest reasonable construction:

> Located to the right of this information are two icons which permit the user to indicate his or her interest in that particular message. If the user found the message to be of interest, a 'thumbs-up' icon 38 can be selected. Alternatively, if the message was of little or no interest to the user, a 'thumbs-down' icon 40 can be selected. When either of these two icons is selected, the indication provided thereby is forwarded to the server 10 where it is used to update the user profile.

Rose, Col. 5, lines 26-34 (emphasis added).

Rose discloses a computer configured to receive these indications. *See* Rose, Col. 3, lines 43-46 ("The illustrated architecture comprises a client-server arrangement, in which a database of information is stored at a server computer 10 and is accessible through various client computers 12, 14.") (emphasis added).

Rose discloses that indications are received in real time. *See* Rose, Col. 9, lines 36-38 ("The frequency with which rankings are recomputed can also be varied as desired. For example, it can be continual, e.g., each time a user votes on a message.").

processing the indication;

As explained above with respect to claim 1, Rose discloses processing the indication (e.g., entry of a rating for the item):

> If the user found the message to be of interest, a 'thumbs-up' icon 38 can be selected. Alternatively, if the message was of little or no interest to the user, a 'thumbs-down' icon 40 can be selected. When either of these two icons is selected, the indication provided thereby is forwarded to the server 10 where it is used to update the user profile.

Rose, Col. 5, lines 28-34 (emphasis added).

determining an intensity value to be associated with the indication and an intensity weight value, and

As explained above with respect to claim 1, Rose discloses determining "an intensity value to be associated with the indication" and "an intensity weight value" (a phrase that does not appear in the specification), giving this claim language its broadest reasonable construction. The "**intensity value**" can take the form of, for example, a weight assigned to neighboring users for the indication (e.g., the rating provided by the user):

> [T]he prediction of a user's interest in information can be based upon a correlation with the indications provided by other users. Referring to FIG. 6, each time a user retrieves a document and subsequently provides an indication of interest, the result can be stored in a table 42. Using the information in this table, a correlation matrix R can be generated, whose entries indicate the degree of correlation between the various users' interests in commonly retrieved messages.

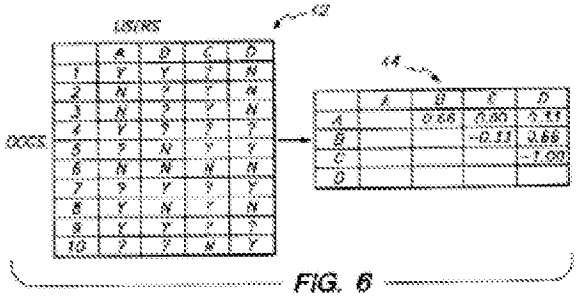


FIG. 6

Rose, Col. 6, line 62 – Col. 7, line 3, and FIG. 6 (emphasis added).

The "**intensity weight value**," giving the claim language its broadest reasonable construction, can take the form of, for example, the total number of ratings for the item. *See* Rose *at* Col. 6, line 64-67, ("Referring to FIG. 6, each time a user retrieves a document and

subsequently provides an indication of interest, the result can be stored in a table 42.") (emphasis added).

Alternatively, the "**intensity value**" can take the form of the rating provided by the rating user:

> Thus, for the corresponding data in FIG. 6, the prediction score for User C regarding Document 1 is as follows:
>
> (0.00*1) + (-0.33*1) + (-1.00*-1) = 0.67
>
> In this formula, each parenthetical product pertains to one of the other users, i.e., A, B and D, respectively. Within each product, the first value represents the correlation measure between the other user and the current user in question, as shown in the matrix 44. The second value indicates whether the other user voted favorably (+1) or negatively (-1) after reading the document, as indicated in the table 42.

Rose at Col. 7, lines 23-33 (emphasis added).

adjusting the intensity value based on a characteristic for the item provided by the source; and

As explained above with respect to claim 1, Rose discloses "adjusting the intensity value based on a characteristic for the item provided by the source," giving this claim language its broadest reasonable construction. For example, Rose discloses the adjustment of the intensity value (e.g., the weights assigned to neighboring users) based on a characteristic for the item provided by the source (e.g., rating provided by the rating user).

> [W]hen a user accesses the system, the feedback table 42 and the correlation matrix 44 are used to predict the likelihood that the user will be interested in any given document. As an example of one of the many different algorithms that can be employed for this purpose, a prediction score, P_{ij} for the i-th user regarding the j-th document, can be computed as:
>
> $$P_{ij} = \sum_{k \neq i, j} R_{ik} V_{kj}$$
>
> where R_{ik} is the correlation of users i and k, and V_{kj} is the weight indicating the feedback of user k on document j. Thus, for the corresponding data in FIG. 6, the prediction score for User C regarding Document 1 is as follows:
>
> (0.00*1) + (-0.33*1) + (-1.00*-1) = 0.67
>
> In this formula, each parenthetical product pertains to one of the other users, i.e. A, B and D, respectively. Within each product, the first value represents the correlation measure between the other user and the current user in

> question, as shown in the matrix 44. The second value indicates whether the other user voted favorably (+1) or negatively (-1) after reading the document, as indicated in the table 42.

Rose, Col. 7, lines 10-33 (emphasis added).

Alternatively, consistent with the position taken by Interval in its infringement contentions, Rose discloses the adjustment of the intensity value (e.g., rating provided by the rating user) based on a characteristic provided by the source (e.g., the weights assigned to neighboring users).

informing the participant that the item is of current interest.

As explained above with respect to claim 1, Rose discloses informing the participant (e.g., the user receiving the recommendation) that the item is of current interest (e.g., recommends the item to the user):

> When a user accesses the system, the system delivers to that user an identification of those items of information in the global database which are believed to be important to the user. The system may also notify the user when new relevant items become available.

Rose at Col. 2, lines 31-36 (emphasis added).

3. A method of disseminating to a participant an indication that an item accessible by the participant via a network is of current interest, comprising:

Claim 3 of the '682 patent is substantially similar to claim 1, except that claim 3 is directed to a method whereas claim 1 is directed to a system. As explained above with respect to claims 1 and 2, Rose discloses disseminating to a participant an indication (e.g., recommendation) that an item accessible by the participant (e.g., user) via a network (e.g., the global database) is of current interest (e.g., an old recommendation is given less weight than newer recommendations). *See* Rose at Col. 2, lines 31-36, ("When a user accesses the system, the system delivers to that user an identification of those items of information in the global database which are believed to be important to the user. The system may also notify the user when new relevant items become available.") (emphasis added).

Rose provides for recommending items of current interest by giving higher recommendation scores to newer items than to older items. *See* Rose *at* Col. 8, lines 52-53, ("[O]lder items might get lower scores if all other relevant factors were equal.")

Rose discloses disseminating indications via a network. *See* Rose, Col. 3, lines 5-9, ("To facilitate an understanding of the principles of the present invention, they are described hereinafter with reference to the implementation of the invention in a system having multiple personal computers that are connected via a network.") (emphasis added).

receiving in real time from a source other than the participant an indication that the item is of current interest;

As explained above with respect to claims 1 and 2, Rose discloses receiving in real time (e.g., at the time the user selects a rating) from a source other than the participant (e.g., other users) an indication that the item is of current interest (e.g., entry of a 'thumbs-up' or 'thumbs-down' rating for the item), giving the claim language its broadest reasonable construction:

> Located to the right of this information are two icons which permit the user to indicate his or her interest in that particular message. If the user found the message to be of interest, a 'thumbs-up' icon 38 can be selected. Alternatively, if the message was of little or no interest to the user, a 'thumbs-down' icon 40 can be selected. When either of these two icons is selected, the indication provided thereby is forwarded to the server 10 where it is used to update the user profile.

Rose, Col. 5, lines 26-34 (emphasis added).

Rose discloses a computer configured to receive these indications. *See* Rose, Col. 3, lines 43-46 ("The illustrated architecture comprises a client-server arrangement, in which a database of information is stored at a server computer 10 and is accessible through various client computers 12, 14.") (emphasis added).

Rose discloses that indications are received in real time. *See* Rose, Col. 9, lines 36-38 ("The frequency with which rankings are recomputed can also be varied as desired. For example, it can be continual, e.g., each time a user votes on a message.").

processing the indication;

As explained above with respect to claims 1 and 2, Rose discloses processing the indication (e.g., entry of a rating for the item):

> If the user found the message to be of interest, a 'thumbs-up' icon 38 can be selected. Alternatively, if the message was of little or no interest to the user, a 'thumbs-down' icon 40 can be selected. When either of these two icons is selected, the indication provided thereby is forwarded to the server 10 where it is used to update the user profile.

Rose, Col. 5, lines 28-34 (emphasis added).

determine an intensity value to be associated with the indication and an intensity weight value, and

As explained above with respect to claims 1 and 2, Rose discloses determining "an intensity value to be associated with the indication" and "an intensity weight value" (a phrase that does not appear in the specification), giving this claim language its broadest reasonable construction. The "**intensity value**" can take the form of, for example, a weight assigned to neighboring users for the indication (e.g., the rating provided by the user):

> [T]he prediction of a user's interest in information can be based upon a correlation with the indications provided by other users. Referring to FIG. 6, each time a user retrieves a document and subsequently provides an indication of interest, the result can be stored in a table 42. Using the information in this table, a correlation matrix R can be generated, whose entries indicate the degree of correlation between the various users' interests in commonly retrieved messages.

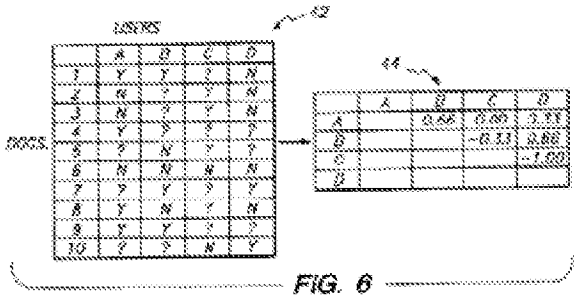


FIG. 6

Rose, Col. 6, line 62 – Col. 7, line 3, and FIG. 6 (emphasis added).

The "**intensity weight value**" can take the form of, for example, the total number of ratings for the item. *See* Rose *at* Col. 6, line 64-67, ("Referring to FIG. 6, each time a user retrieves a document and subsequently provides an indication of interest, the result can be stored in a table 42.") (emphasis added).

Alternatively, the "**intensity value**," giving the claim language its broadest reasonable construction, can take the form of the rating provided by the rating user:

> Thus, for the corresponding data in FIG. 6, the prediction score for User C regarding Document 1 is as follows:
>
> (0.00*1) + (-0.33*1) + (-1.00*-1) = 0.67

> In this formula, each parenthetical product pertains to one of the other users, i.e., A, B and D, respectively. Within each product, the first value represents the correlation measure between the other user and the current user in question, as shown in the matrix 44. The second value indicates whether the other user voted favorably (+1) or negatively (-1) after reading the document, as indicated in the table 42.

Rose at Col. 7, lines 23-33 (emphasis added).

adjusting the intensity value based on a characteristic for the item provided by the source;

As explained above with respect to claims 1 and 2, Rose discloses "adjusting the intensity value based on a characteristic for the item provided by the source," giving this claim language its broadest reasonable construction. For example, Rose discloses the adjustment of the "intensity value" (e.g., the weights assigned to neighboring users) based on a characteristic for the item provided by the source (e.g., rating provided by the rating user).

> [W]hen a user accesses the system, the feedback table 42 and the correlation matrix 44 are used to predict the likelihood that the user will be interested in any given document. As an example of one of the many different algorithms that can be employed for this purpose, a prediction score, P_{ij} for the i-th user regarding the j-th document, can be computed as:
>
> $$P_{ij} = \sum_{k \neq i, j} R_{ik} V_{kj}$$
>
> where R_{ik} is the correlation of users i and k, and V_{kj} is the weight indicating the feedback of user k on document j. Thus, for the corresponding data in FIG. 6, the prediction score for User C regarding Document 1 is as follows:
>
> (0.00*1) + (-0.33*1) + (-1.00*-1) = 0.67
>
> In this formula, each parenthetical product pertains to one of the other users, i.e. A, B and D, respectively. Within each product, the first value represents the correlation measure between the other user and the current user in question, as shown in the matrix 44. The second value indicates whether the other user voted favorably (+1) or negatively (-1) after reading the document, as indicated in the table 42.

Rose, Col. 7, lines 10-33 (emphasis added).

Alternatively, consistent with the position taken by Interval in its infringement contentions, Rose discloses the adjustment of the "intensity value" (e.g., rating provided by the rating user) based on a characteristic provided by the source (e.g., the weights assigned to neighboring users).

informing the participant that the item is of current interest.

As explained above with respect to claims 1 and 2, Rose discloses informing the participant (e.g., the user receiving the recommendation) that the item is of current interest (e.g., recommends the item to the user):

> When a user accesses the system, the system delivers to that user an identification of those items of information in the global database which are believed to be important to the user. The system may also notify the user when new relevant items become available.

Rose at Col. 2, lines 31-36 (emphasis added).

> **4. The method of claim 3, wherein processing the indication comprises determining the intensity value for the indication based on at least one attribute of the indication, the intensity value representing the weight that will be given to the indication.**

As shown above, Claim 3 is anticipated by Rose. Rose also discloses that processing the indication (e.g., entry of a 'thumbs-up' or 'thumbs-down' rating for the item) comprises determining an "intensity value" to be associated with the indication (e.g., correlation measure) based on at least one attribute of the indication (e.g., who the indication was entered by), the "intensity value" representing the weight that will be given to the indication, giving the claim language its broadest reasonable construction:

> [T]he prediction of a user's interest in information can be based upon a correlation with the indications provided by other users. Referring to FIG. 6, each time a user retrieves a document and subsequently provides an indication of interest, the result can be stored in a table 42. Using the information in this table, a correlation matrix R can be generated, whose entries indicate the degree of correlation between the various users' interests in commonly retrieved messages.
>
> …
>
> [W]hen a user accesses the system, the feedback table 42 and the correlation matrix 44 are used to predict the likelihood that the user will be interested in any given document. As an example of one of the many different algorithms that can be employed for this purpose, a prediction score, P_{ij} for the i-th user regarding the j-th document, can be computed as:
>
> $$P_{ij} = \sum_{k \neq i} R_{ik} V_{kj}$$
>
> where R_{ik} is the correlation of users i and k, and V_{kj} is the weight indicating the feedback of user k on document j.

Rose, Col. 6, line 62-Col. 7, line 3; Rose, Col. 7, lines 10-22 (emphasis added).

> **5. The method of claim 4, wherein processing the indication further comprises calculating an intensity rank for the item based at least in part on the intensity value of the indication, the intensity rank indicating the level of current interest of the item relative to other items.**

As shown above, Claim 4 is anticipated by Rose. Rose also discloses calculating an "intensity rank" (e.g., ranking based on the predicted degree of relevance to the user) based at least in part on the "intensity value" of the indication (e.g., correlation measure), giving the claim language its broadest reasonable construction. *See* Rose at Col. 4, lines 40-44 ("Once the user's profile is retrieved, all of the available messages are ranked on the basis of a predicted degree of relevance to the user. Once the messages have been ranked, a list is formed in which the messages are sorted from highest to lowest ranking.")

Rose discloses that the "intensity rank" is based at least in part on the "intensity value" of the indication:

> [W]hen a user accesses the system, the feedback table 42 and the correlation matrix 44 are used to predict the likelihood that the user will be interested in any given document. As an example of one of the many different algorithms that can be employed for this purpose, a prediction score, P_{ij} for the i-th user regarding the j-th document, can be computed as:
>
> $$P_{ij} = \sum_{k \neq j} R_{ik} V_{kj}$$
>
> where R_{ik} is the correlation of users i and k, and V_{kj} is the weight indicating the feedback of user k on document j. Thus, for the corresponding data in FIG. 6, the prediction score for User C regarding Document 1 is as follows:
>
> $$(0.00*1) + (-0.33*1) + (-1.00*-1) = 0.67$$
>
> In this formula, each parenthetical product pertains to one of the other users, i.e. A, B and D, respectively. Within each product, the first value represents the correlation measure between the other user and the current user in question, as shown in the matrix 44. The second value indicates whether the other user voted favorably (+1) or negatively (-1) after reading the document, as indicated in the table 42.

Rose, Col. 7, lines 10-33 (emphasis added).

> **8. The method of claim 3, further comprising receiving data identifying the source of the indication.**

As shown above, Claim 3 is anticipated by Rose. Rose also discloses receiving data identifying the source of the indication (e.g., data identifying the rating user). *See* Rose at Col. 5, lines 32-34 ("When either of these two icons is selected, the indication provided thereby is forwarded to the server 10, where it is used to update the user profile.").

17. The method of claim 3, further comprising storing data relating to the indication in a database.

As shown above, Claim 3 is anticipated by Rose. Rose also discloses storing data relating to the indication in a database. *See* Rose at Col. 5, lines 32-34 ("When either of these two icons is selected, the indication provided thereby is forwarded to the server 10, where it is used to update the user profile.").

20. The method of claim 3, further comprising providing one or more participants with an interface to send an indication that an item is of current interest.

As shown above, claim 3 is anticipated by Rose. Rose also discloses providing one or more participants (e.g., users) with an interface to send an indication that an item is of current interest (e.g., entry of a 'thumbs-up' or 'thumbs-down' rating for the item).

> An example of an interface for the display of a message is illustrated in FIG. 4. Referring thereto, the message can be displayed in an appropriate window 34. The contents of the message, e.g., its text, is displayed in the main portion of the window. Located above this main portion is the header 36 which contains certain information regarding the message. For example, the header can contain the same information as provided in the columns shown in the interface of FIG. 3, i.e., author, date and rifle. Located to the right of this information are two icons which permit the user to indicate his or her interest in that particular message. If the user found the message to be of interest, a 'thumbs-up' icon 38 can be selected. Alternatively, if the message was of little or no interest to the user, a 'thumbs-down' icon 40 can be selected.

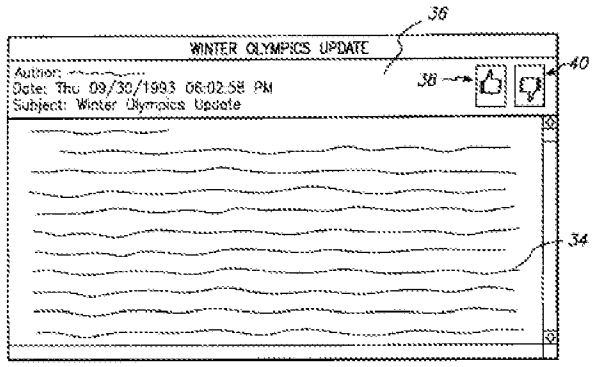


FIG. 4

Rose, Col. 5, lines 18-30 (emphasis added).

I. CLAIMS 6-7, 9-13, AND 16 ARE OBVIOUS OVER ROSE IN VIEW OF BEZOS

Requesters respectfully submit that claims 6-7, 9-13, and 16 are obvious over Rose in view of Bezos under 35 U.S.C. § 103(a). A detailed explanation of the pertinence and manner of applying this combination to these claims is set forth below and in the attached claim chart (Exhibit CC-I).

Please see attached Claim Chart, Exhibit CC-I, for a comparison of Claims 6-7, 9-13, and 16 of the '682 Patent with Rose in View of Bezos

Rose anticipates claims 1-5, 8, 16-17, and 20, for the reasons expressed in Part VII.H above. As to dependent claims 6-7, 9-13, and 16, these claims are obvious under § 103(a) over Rose in view of Bezos.

An invention is not entitled to patent protection if "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." 35 U.S.C. § 103(a). In making an obviousness determination, "a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions." *KSR Int'l Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 1740 (2007). In *KSR*, the Supreme Court rejected the "rigid approach" of the former "teaching-suggestion-motivation to combine" or "TSM" test. *Id.* at 1739.

After the Supreme Court's decision in *KSR*, the PTO issued "Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in view of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.*" 72 Fed. Reg. 57,526 (Oct. 10, 2007) ("Examination Guidelines"). According to the Examination Guidelines, "the Supreme Court particularly emphasized 'the need for caution in granting a patent based on the combination of elements found in the prior art.'" *Id.* The Examination Guidelines state that "the focus when making a determination of obviousness should be on what a person of ordinary skill in the pertinent art would have known at the time of the invention, and on what such a person would have reasonably expected to have been able to do in view of that knowledge." *Id.* at 57,527. The Supreme Court further stated that "in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle." *KSR*, 127 S.Ct. at 1742.

It would have been obvious to one of ordinary skill in the art to combine Rose with Bezos to provide the alleged inventions recited in claims 6-7, 9-13 and 16. As discussed above, both references provide solutions to the same problems purportedly addressed in the '682 patent, including the ability to recommend items of interest to users based upon indications of interest from other users. Rose and Bezos both disclose the use of collaborative filtering techniques to generate recommendations for a user based on the actions of other users. *See* Rose, Col. 2, lines 42-47; Bezos, Col. 1, lines 36-39. A person of ordinary skill in the art could easily have substituted any implementation detail or feature in Rose for one disclosed in Bezos to yield results that would have been predictable to one of ordinary skill in the art.

Rose does not expressly disclose the association and selection of items based on specific "categories of interest" that meets all elements of claims 6 and 9-13. Rose itself provides an explicit motivation for such an addition, explaining that "[i]f desired, additional databases directed to specific categories of information can be included. For example, a database of movie descriptions can be provided to make movie recommendations to users." Rose, Col. 9, lines 47-50. The system of Rose, therefore, expressly contemplates and encourages the use of categories. It would have been obvious to adapt the system of Rose to organize items of interest on a category-by-category basis as disclosed in Bezos. Because Rose already discloses presenting the user with a list of recommended items, ranked in descending order of predicted interest, a person of ordinary skill in the art would have ample motivation to present category-specific recommendations in the same manner. Combining Rose with Bezos would have predictably

resulted in the recommendation system of Rose with the additional ability of the user to choose specific categories of interest and to receive recommendations within those categories.

With respect to claim 7 of the '682 patent, which depends from independent claim 3, it recites nothing more than the trivial act of "receiving a comment relating to the item." It would have been obvious to one of ordinary skill in the art to add that capability (disclosed in Bezos) to the system provided in Rose. Both Rose and Bezos allow users to indicate interest in items by providing a rating. *See* Rose, Col. 5, lines 28-34; Bezos, Col. 1, lines 45-51. A skilled artisan would be motivated to add a commenting feature to Rose, for example, so richer user feedback about an item could be captured beyond the fixed "thumbs-up" and "thumbs-down" rankings disclosed in Rose.

Claim 16 recites the step that "the item is identified by a Uniform Resource Locator (URL)." That this claim is not expressly disclosed in Rose is not surprising considering that the application for Rose was filed in April 1994, before the World Wide Web became widely popular. Rose nonetheless discloses on-line systems such as "electronic bulletin board systems" in which "users can post documents or files to directories corresponding to specific topics, where they can be viewed by other users." Rose, Col. 1, lines 31-36. By the time the application for the '682 patent was filed more than six years later, the use of URLs to identify items on the World Wide Web was commonplace, and is fully disclosed in Bezos. *See* Bezos, Col. 10, lines 11-16 (hypertext link 68). One of ordinary skill in the art would have been motivated to add this feature to Rose to achieve the clear advantage of being able to access the item using a standard Internet web browser through a URL. For example, allowing the user to access an item through a standard URL would free the developer of the burden of developing specialized application software to index, locate and facilitate user access to the item.

J. CLAIMS 9-10 AND 16 ARE OBVIOUS OVER ROSE IN VIEW OF SHEENA

Requesters respectfully submit that claims 9-10 and 16 are obvious over Rose in view of Sheena under 35 U.S.C. § 103(a). A detailed explanation of the pertinence and manner of applying this combination to these claims is set forth below and in the attached claim chart (Exhibit CC-J).

Please see attached Claim Chart, Exhibit CC-J, for a comparison of Claims 9-10 and 16 of the '682 Patent with Rose in View of Sheena

Rose anticipates claims 1-5, 8, 17, and 20, for the reasons expressed in Part VII.H above. As to dependent claims 9-10 and 16, these claims are obvious under § 103(a) over Rose in view of Sheena.

An invention is not entitled to patent protection if "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." 35 U.S.C. § 103(a). In making an obviousness determination, "a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions." *KSR Int'l Co. v. Teleflex, Inc.*, 127 S.Ct. 1727, 1740 (2007). In *KSR*, the Supreme Court rejected the "rigid approach" of the former "teaching-suggestion-motivation to combine" or "TSM" test. *Id.* at 1739.

After the Supreme Court's decision in *KSR*, the PTO issued "Examination Guidelines for Determining Obviousness Under 35 U.S.C. 103 in view of the Supreme Court Decision in *KSR International Co. v. Teleflex Inc.*" 72 Fed. Reg. 57,526 (Oct. 10, 2007) ("Examination Guidelines"). According to the Examination Guidelines, "the Supreme Court particularly emphasized 'the need for caution in granting a patent based on the combination of elements found in the prior art.'" *Id.* The Examination Guidelines state that "the focus when making a determination of obviousness should be on what a person of ordinary skill in the pertinent art would have known at the time of the invention, and on what such a person would have reasonably expected to have been able to do in view of that knowledge." *Id.* at 57,527. The

Supreme Court further stated that "in many cases a person of ordinary skill will be able to fit the teachings of multiple patents together like pieces of a puzzle." *KSR*, 127 S.Ct. at 1742.

It would have been obvious to one of ordinary skill in the art to combine Rose with Bezos to provide the alleged inventions recited in claims 9 and 10. As discussed above, both references provide solutions to the same problems purportedly addressed in the '682 patent, including the ability to recommend items of interest to users based upon indications of interest from other users. Rose and Bezos both disclose the use of collaborative filtering techniques to generate recommendations for a user based on the actions of other users. *See* Rose, Col. 2, lines 42-47; Bezos, Col. 1, lines 36-39. A person of ordinary skill in the art could easily have substituted any implementation detail or feature in Rose for one disclosed in Bezos to yield results that would have been predictable to one of ordinary skill in the art.

Rose does not expressly disclose the association and selection of items based on specific "categories of interest" that meets all elements of claims 9 and 10. Rose itself provides an explicit motivation for such an addition, explaining that "[i]f desired, additional databases directed to specific categories of information can be included. For example, a database of movie descriptions can be provided to make movie recommendations to users." Rose, Col. 9, lines 47-50. The system of Rose, therefore, expressly contemplates and encourages the use of categories. It would have been obvious to adapt the system of Rose to organize items of interest on a category-by-category basis as disclosed in Sheena. Because Rose already discloses presenting the user with a list of recommended items, ranked in descending order of predicted interest, a person of ordinary skill in the art would have ample motivation to present category-specific recommendations in the same manner. Combining Rose with Sheena would have predictably resulted in the recommendation system of Rose with the additional ability of the user to choose specific categories of interest and to receive recommendations within those categories.

Claim 16 recites the step that "the item is identified by a Uniform Resource Locator (URL)." That this claim is not expressly disclosed in Rose is not surprising considering that the application for Rose was filed in April 1994, before the World Wide Web became widely popular. Rose nonetheless discloses on-line systems such as "electronic bulletin board systems" in which "users can post documents or files to directories corresponding to specific topics, where they can be viewed by other users." Rose, Col. 1, lines 31-36. By the time the application for the '682 patent was filed more than six years later, the use of URLs to identify items on the

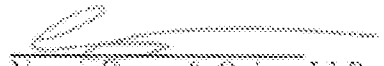
World Wide Web was commonplace, and is fully disclosed in Sheena. *See* Sheena, Col. 3, lines 3-8 (recommended items may include "World Wide Web pages"). One of ordinary skill in the art would have been motivated to add this feature to Rose to achieve the clear advantage of being able to access the item using a standard Internet web browser through a URL. For example, allowing the user to access an item through a standard URL would free the developer of the burden of developing specialized application software to index, locate and facilitate user access to the item.

CONCLUSION

Claims 1-13, 16-17 and 20 are unpatentable over the prior art cited in this Request. The prior art discloses, teaches or suggests the subject matter of these claims in such a manner that SNQs are raised as to each claim. The Requesters respectfully request that the PTO grant this Request and return a first Office Action rejecting claims 1-13, 16-17 and 20 in accordance with the proposed rejections listed in Section VI.A on page 23 above, with special dispatch.

Enclosed is a credit card authorization to cover the Fee for reexamination. If this authorization is missing or defective please charge the Fee to the Novak Druce Deposit Account No. 14-1437.

Respectfully submitted,



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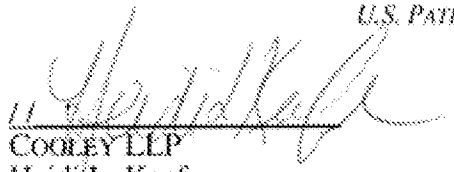

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