IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Inventors: Ahmad *et al.*, Patent No.: 6,263,507 Filed: December 5, 1996 For: BROWSER FOR USE IN NAVIGATING A BODY OF INFORMATION, WITH PARTICULAR APPLICATION TO BROWSING INFORMATION REPRESENTED BY AUDIOVISUAL DATA	REQUEST FOR REEXAMINATION UNDER 35 U.S.C. §§ 302-307 AND 37 C.F.R. § 1.510

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

REQUEST FOR *EX PARTE* REEXAMINATION OF U.S. PATENT 6,263,507

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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	"Network Plus", Walter Bender *et al.*, January 12-13, 1988 ("Bender")
PA-B	"Cluster-Based Text Categorization: A Comparison of Category Search Strategies", Makoto Iwayama, July 9-13, 1995 ("Iwayama")
PA-C	"The Fishwrap Personalized News System", Pascal R. Chesnais *et al.*, June 1995 ("Chesnais")
PA-D	"Classifying News Stories using Memory Based Reasoning", Brij Masand, June 1992 ("Masand")
PA-E	"WebWatcher: Machine Learning and Hypertext", Thorsten Joachims *et al.*, May 29, 1995 ("Joachims")
PA-F	JP Publication No. H07-114572 to Yuasa ("Yuasa")
PA-G	"Wire Service Transmission Guidelines Number 84-2", Special Report / American Newspaper Publishers Association, ANPA June 14, 1984 ("WTS Guidelines")
PA-H	"The Associated Press Stylebook and Libel Manual", The Associated Press, 1994 ("AP Stylebook")

B. RELEVANT PATENT MATERIALS (PAT)

PAT-A	U.S. Patent No. '507 ("the '507 patent")
PAT-B	File history for the '507 patent

C. CLAIM CHARTS (CC)

CC-A	Claim chart comparing claims 20-22, 24, 27, 31, 34, 37, 38, 63-65, 67, 70, 74, 77, 80, and 81 of the '507 patent to the disclosure in Bender
CC-B	Claim chart comparing claims 28, 37, 71, and 80 of the '507 patent to the disclosure in Bender in view of Patent Owner Admissions
CC-C	Claim chart comparing claims 22, 23, 65, and 66 of the '507 patent to the disclosure in Bender in view of Chesnais and further in view of Patent Owner Admissions

CC-D	Claim chart comparing claims 20-24, 27, 31, 34, 37, 38, 63-67, 70, 74, 77, 80, and 81 of the '507 patent to the disclosure in Chesnais in view of AP Stylebook and further in view of Wire Service Transmission Guidelines
CC-E	Claim chart comparing claims 28 and 71 of the '507 patent to the disclosure in Chesnais in view of AP Stylebook, further in view of Wire Service Transmission Guidelines and further in view of Patent Owner Admissions
CC-F	Claim chart comparing claims 20-24, 27, 31, 34, 37, 38, 63-67, 70, 74, 77, 80, and 81 of the '507 patent to the disclosure in Chesnais in view of Bender
CC-G	Claim chart comparing claims 28 and 71 of the '507 patent to the disclosure in Chesnais in view of Bender in view of Patent Owner Admissions
CC-H	Claim chart comparing claims 20-24, 31, 34, 37, 63-67, 74, 77, and 80 of the '507 patent to the disclosure in to the disclosure in Joachims
CC-I	Claim chart comparing claims 27 and 70 of the '507 patent to the disclosure in Joachims in view of Bender
CC-J	Claim chart comparing claims 28 and 71 of the '507 patent to the disclosure in Joachims in view of Patent Owner Admissions
CC-K	Claim chart comparing claims 39, 40, 43, 82, 83, and 86 of the '507 patent to the disclosure in Masand
CC-L	Claim chart comparing claims 39, 43, 82, and 86 of the '507 patent to the disclosure in Iwayama
CC-M	Claim chart comparing claims 40, 43, 83, and 86 of the '507 patent to the disclosure in Iwayama in view of Masand
CC-N	Claim chart comparing claims 40 and 83 of the '507 patent to the disclosure in Iwayama in view of Patent Owner Admissions
CC-O	Claim chart comparing claims 39, 43, 82, and 86 of the '507 patent to the disclosure in Yuasa
CC-P	Claim chart comparing claims 40 and 83 of the '507 patent to the disclosure in Yuasa in view of Patent Owner Admissions

D. OTHER DOCUMENTS (OTH)

OTH-A	First Amended 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	"Newsedge Feeds Financial Wire News to PC Applications", Info World, Ed Scannell (October 30, 1989)
OTH-C	"Individual to tap Internet with an agent-based news service", Info World, Karen Rodriguez (October 24, 1994)
OTH-D	Infringement Contentions Ex. B-1 507-Apple-Apple.com Store-Product Page
OTH-E	Infringement Contentions Ex. B-2 507-Apple-AppleTV

OTH-F	Infringement Contentions Ex. B-3 507-Apple-iPad App Store-Product Page
OTH-G	Infringement Contentions Ex. B-4 507-Apple-iTunes Sidebar-Genius
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OTH-Z	Infringement Contentions Ex. I-1 507-Staples-Staples Website-Product Page

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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REQUEST FOR *EX PARTE* REEXAMINATION OF U.S. PATENT 6,263,507

Dear Sir:

Reexamination is respectfully requested, pursuant to 35 U.S.C. §§ 302-307 and 37 C.F.R. § 1.510, of Claims 20-24, 27, 28, 31, 34, 37-40, 43, 63-67, 70, 71, 74, 77, 80-83, and 86 of U.S. Patent No. 6,263,507 ("the '507 patent"), which was filed December 5, 1996 and issued July 17, 2001 to Ahmad, *et al.*, (Exhibit PAT-A). Reexamination is requested in view of the substantial new questions of patentability ("SNQs") presented below. Requester reserves all rights and defenses available, including, without limitation, defenses as to invalidity and unenforceability. By simply filing this Request in compliance with the Patent Rules, Requester does not represent, agree, or concur that the '507 patent is enforceable, and by asserting the SNQs herein, Requester specifically asserts that Claims 20-24, 27, 28, 31, 34, 37-40, 43, 63-67, 70, 71, 74, 77, 80-83, and 86 of the '507 patent are in fact not patentable. Accordingly, the U.S. Patent and Trademark

Office (the "Office") should reexamine, find unpatentable, and cancel Claims 20-24, 27, 28, 31, 34, 37-40, 43, 63-67, 70, 71, 74, 77, 80-83, and 86 of the '507 patent, rendering Claims 20-24, 27, 28, 31, 34, 37-40, 43, 63-67, 70, 71, 74, 77, 80-83, and 86 of the '507 patent null, void, and otherwise unenforceable.

Reexamination is requested in view of the teachings of the references cited herein. Individually and/or in appropriate combination, these references disclose all of the elements recited by the claims of the '507 patent – including, in particular, features that were believed by the Examiner during prosecution not to be disclosed in the prior art and the believed absence of which was expressly indicated to be reason for allowance of the claims. Further, Requester believes that none of the references submitted as part of this Request was considered by the Examiner during prosecution. As explained more fully below, reexamination is appropriate in view of the printed publications cited herein which, alone or in combination, provide new technical teachings not previously considered with respect to the claims for which reexamination is being requested.

The Requesters respectfully submit that reexamination should be granted for claims 20-24, 27, 28, 31, 34, 37-40, 43, 63-67, 70, 71, 74, 77, 80-83, and 86; that these claims should be found unpatentable; and that a Certificate of Reexamination should be issued canceling all of these claims.

I. INTRODUCTORY COMMENTS

The Requesters – eBay Inc.; Staples, Inc.; Office Depot, Inc.; Yahoo!, Inc.; and Netflix, Inc. – ask that the Patent Office order reexamination of the '507 patent immediately. Each of the Requesters is a named defendant in *Interval Licensing v. AOL, et al.*, which is currently pending in the United States District Court for the Western District of Washington. Case No. 2:10-cv-01385-MJP. In the litigation, the plaintiff (a non-practicing patent-holding company) has accused each of Requesters' various systems of infringing the '507 patent.

Generally speaking, the '507 claims for which reexamination is sought are directed to two basic concepts: (1) comparing "segments" of a "body of information" to find related segments, and displaying the related segments (the "Comparing/Displaying Claims"); and (2) assigning a subject matter category to a previously uncategorized segment of a body of information based on a degree of "similarity" between the uncategorized segment and previously

characterized segments of the body of information (the "Categorization Claims"). The '507 patent exemplified these broad concepts by describing an embodiment that acquires data from television news broadcasts and from text-based news wire services. "[W]hen the user is observing a particular news story in an audiovisual news program, the invention can identify and display a related text news story or stories." ('507 patent 10:14-16.) The application which gave rise to the '507 patent was filed on December 5, 1996.

Significantly, however, both of these concepts were well known in the prior art and explicitly taught in prior art publications that were not considered by the Examiner.

A. BENDER'S ARTICLE PUBLISHED NINE YEARS EARLIER STRIKINGLY DISCLOSES THE CONCEPT BEHIND THE COMPARING/DISPLAYING CLAIMS

During prosecution, the Examiner determined that U.S. Patent No. 5,614,940 ("Cobbley") was the "closest prior art." Cobbley discloses a system which receives multiple audiovisual segments and allows end users to select which segment to display. The Examiner found that Cobbley "fails to disclose or suggest to [sic] comparison of segments for the subsequent display of related segments by respective 'display means'." See page 5 of the May 18, 2000 Office Action.

Thus, a key feature the Examiner found to be lacking in the prior art was comparing segments in order to display related segments. Yet this feature (along with every feature of the claims at issue in this Request) was, in fact, known in the prior art. For example, dating from 1988, "Network Plus" by Bender ("Bender") discloses a computer-based system to display television news programs supplemented in real time by related content, such as textual content from news wires, to permit "a more detailed examination of the same news articles which are summarily presented during a traditional one half hour television news show." Bender at p. 81. Moreover, just as in the '507 patent, Bender teaches determining relatedness by comparing a broadcast's closed captioning data to the text found in news wire stories. *Compare* Bender at pp. 82-83 *with* '507 patent at 28:5-23 and 36-38.

Much like the system described in the '507 patent, Bender identifies and displays television news stories on one part of the screen, and related text news stories on another part of the screen. The striking similarities between Bender's system and the '507 patent's system is best seen by a comparison of Bender Figure 2 to the '507 patent's Fig. 2B:

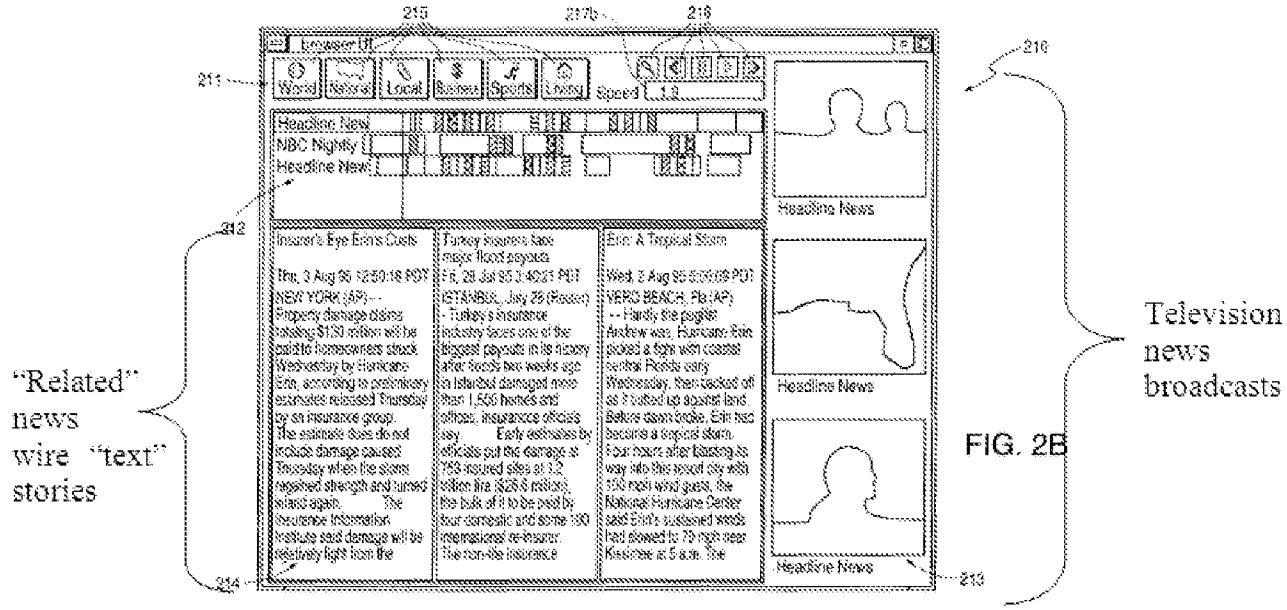

FIG. 2B

'507 Patent at FIG. 2B

Figure 1: Locally Packaged Television. On the top is the original broadcast. On the lower left, a map is inserted locally. On the right, the map is replaced with text from the wire services.

"Related" news wire "text" stories

Televisions news broadcasts

Figure 2: Network Plus. The live broadcast is in the lower right quadrant. Salient stills are in the upper right. Text from the wire services is on the left.

Bender FIG. 2

This 1988 article by Bender—published nine years before the '507 patent's priority date—is just one example of the previously unconsidered prior art publications that disclose previously unconsidered technological teachings that render the claims of the '507 unpatentable.

B. MASAND, IWAYAMA AND OTHER REFERENCES ANTICIPATE AND/OR RENDER OBVIOUS THE CATEGORIZATION CLAIMS

Masand, which was published in 1992 teaches the use of Memory Based Reasoning (MBR) to classify (*i.e.,* categorize) new, unseen news stories. *See* Masand at Abstract. MBR solves a new task (i.e., classifying a new story) by looking up examples of tasks (i.e., previously coded stories) similar to the new task and using the similarity between the new story and the previously coded stories to assign a code (i.e., category) to the new story. *See* Masand, p. 61. Codes are then assigned to the new document by combining the codes assigned to the k-nearest matches by score. *Id.* Moreover, "Cluster-Based Text Categorization: A Comparison of Category Search Strategies", by Makoto Iwayama, July 9-13, 1995 ("Iwayama"), describes several algorithms for using "training documents," which have been categorized previously by subject matter, to categorize other, uncategorized "test" documents. Among the algorithms described by Iwayama is to "search [for] the K-nearest training documents to the test document and use the categories assigned to those training documents" to categorize the test document. Iwayama at p. 273.

Masand and Iwayama anticipate the '507 claims directed to categorizing previously uncategorized segments based on the degree of similarity.

C. SUMMARY OF INTRODUCTORY COMMENTS

As explained below in greater detail, multiple other references (either alone or in combination) anticipate and/or render obvious claims 20-24, 27, 28, 31, 34, 37-40, 43, 63-67, 70, 71, 74, 77, 80-83, and 86 of the '507 patent. Like Bender, Masand and Iwayama, none of these references was before the Patent Office during original examination. Because each of these references raises a substantial new question concerning the patentability of these claims, and particularly in light of the infringement lawsuit pending against Requesters, Requesters respectfully request that the Patent Office order *ex parte* reexamination immediately.

II. REQUIREMENTS FOR EX PARTE REEXAMINATION UNDER 37 C.F.R. § 1.510

A. 37 C.F.R. § 1.510 (B)(1) AND (B)(2): STATEMENT POINTING OUT EACH SUBSTANTIAL NEW QUESTION OF PATENTABILITY

A statement pointing out each substantial new question of patentability ("SNQ") based on the cited references, and a detailed explanation of the pertinence and manner of applying the references to Claims 20-24, 27, 28, 31, 34, 37-40, 43, 63-67, 70, 71, 74, 77, 80-83, and 86 of the '507 patent, is presented below in accordance with 37 C.F.R. § 1.510 (b)(1) and (b)(2).

The SNQs raised herein are based on art that was not considered or discussed during the prosecution of the '507 patent, or was not of record. The references, alone or in combination, are not cumulative to the prior art discussed during the original prosecution[1] and raise new substantial questions of patentability. Thus, the prior art documents cited in this Request are appropriate for use in supporting the SNQs raised herein.

A chart of proposed SNQs is provided here for reference:

SNQ Letter	SNQ	Claims Affected
A	Bender	20-24, 27, 28, 31, 34, 37, 38, 63-67, 70, 71, 74, 77, 80, and 81
B	Bender in Combination with Patent Owner Admissions	28, 37, 71, and 80
C	Bender in Combination with Chesnais and Patent Owner Admissions	22, 23, 65, and 66
D	Chesnais in Combination with AP Stylebook and WST Guidelines	20-24, 27, 28, 31, 34, 37, 38, 63-67, 70, 71, 74, 77, 80, and 81
E	Chesnais in Combination with AP Stylebook, WST Guidelines, and Patent Owner Admissions	28 and 71
F	Chesnais in Combination with Bender	20-24, 27, 28, 31, 34, 37, 38, 63-67, 70, 71, 74, 77, 80, and

[1] "For purposes of reexamination, a cumulative reference that is repetitive is one that substantially reiterates verbatim the teachings of a reference that was either previously relied upon or discussed in a prior Office proceeding even though the title or the citation of the reference may be different. However, it is expected that a repetitive reference which cannot be considered by the Office during reexamination will be a rare occurrence since most references teach additional information or present information in a different way than other references, even though the references might address the same general subject matter." MPEP §2258.01.

		81
G	Chesnais in Combination with Bender and Patent Owner Admissions	28 and 71
H	Joachims in Combination with Patent	20-24, 27, 28, 31, 34, 37, 63-67, 70, 71, 74, 77, and 80
I	Joachims in Combination with Bender	27 and 70
J	Joachims in Combination with Patent Owner Admissions	28 and 71
K	Masand	39, 40, 43, 82, 83, and 86
L	Iwayama	39, 40, 43, 82, 83, and 86
M	Iwayama in Combination with Masand	40, 43, 83, and 86
N	Iwayama in Combination with Patent Owner Admissions	40 and 83
O	Yuasa	39, 40, 43, 82, 83, and 86
P	Yuasa in Combination with Patent Owner Admissions	40 and 83

B. 37 C.F.R. § 1.510 (b)(3): Copy of Every Patent or Printed Publication Relied Upon or Referred to

A copy of every patent or printed publication relied upon to present an SNQ is submitted herein, as Exhibits PA-A through PA-H and are listed on the accompanying Form PTO-SB/08 at Exhibit PTO-SB/08. Each of these cited prior art references constitutes effective prior art as to the claims of the '507 patent under 35 U.S.C. § 102 and 35 U.S.C. § 103.

C. 37 C.F.R. § 1.510 (b)(4): Copy of the Entire Patent for which Reexamination is Requested

A full copy of the '507 patent is submitted herein as Exhibit PAT-A and its corresponding file history is submitted as Exhibit PAT-B.

D. 37 C.F.R. § 1.510 (b)(5): 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 at the following correspondence address of record:

DAVID R GRAHAM
1337 CHEWPON AVENUE
MILPITAS CA 95035

E. 37 C.F.R. § 1.510 (a): Fee for Requesting Reexamination

A credit card authorization to charge the fee for reexamination of $2,520.00 is attached. If this authorization is missing or defective, please charge the Fee to the Novak Druce + Quigg, LLP Deposit Account No. 14-1437.

III. OVERVIEW OF THE '507 PATENT AND ITS PROSECUTION HISTORY

A. THE '507 PATENT

The '507 patent describes three general concepts: (1) comparing data representing a first segment of a body of information to data representing a second segment of a body of information to determine whether the two segments are related, and displaying the second segment along with the first segment if the two segments are related; (2) using the subject matter categories of previously categorized segment(s) of a body of information, to assign one or more of those subject matter categories to an uncategorized segment of the body of information to which the previously categorized segment(s) is/are related as determined based on degree of similarity between the previously characterized and uncharacterized segments of the body of information; and (3) determining the boundaries of segments in a body of information. Only the first two concepts are germane to this request. Therefore, the third concept and claims will not be discussed in detail herein.

FIRST CONCEPT - CLAIMS AT ISSUE: 20-24, 27, 28, 31, 34, 37, 38, 63-67, 70, 71, 74, 77, 80, 81

Referring to Fig. 2B of the '507 patent, which is reproduced below, the first concept culminates in the display of a first (also referred to as "primary") segment of information and a related second (or also referred to as a "secondary") segment of information. The '507 patent identifies a television news broadcast 213 as the first segment of information and one of the related text news stories 214 as a second segment of information. ('507 patent at 10:14-16, 27:50-55, Fig. 2B.) The process for acquiring this information and for determining whether two segments of data are sufficiently related to display is straightforward, and by the Patentee's own admission, draws heavily from the prior art.

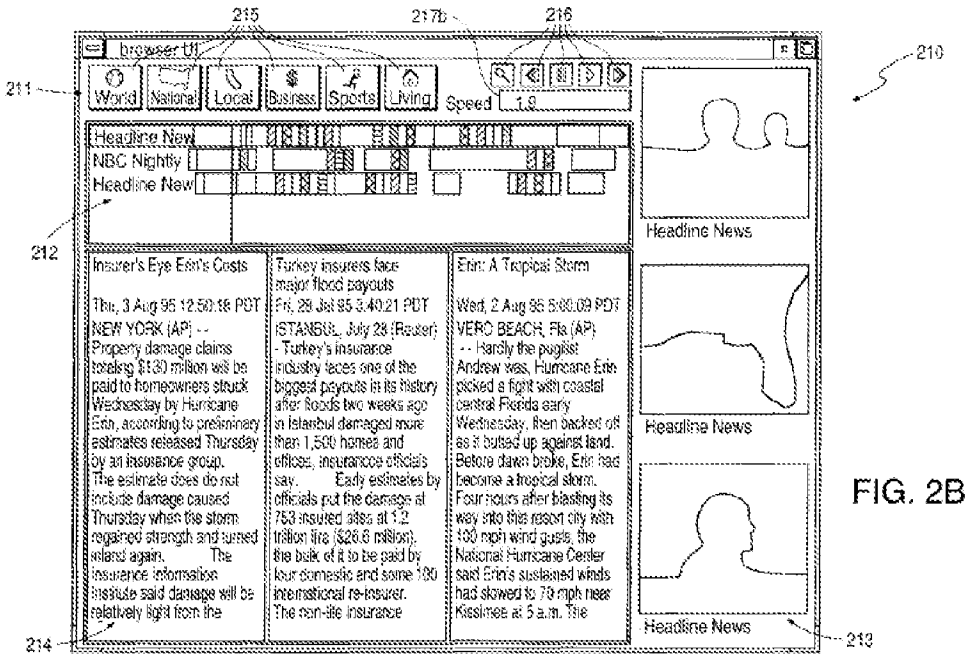

FIG. 2B

The process begins with the acquisition of data. Television news broadcasts and related text stories are acquired through techniques that were known at the time of filing of the application resulting in the '507 patent: "For example, the system controller 103 can acquire data representing television broadcasts using conventional equipment for receiving (*e.g.* a television set and antenna) and recording (*e.g.* a conventional videocassette recorder) television signals." ('507 patent at 19:65-20:4) (parentheticals in original). "Or, the system controller 103 can acquire computer-readable data files that can include text data, audio data, video data or some combination of two or more types of data), using conventional communications hardware and techniques..." '507 patent at 20:7-11.)

The '507 patent describes the process by which the system determines whether two information "segments" (*e.g.*, a television news broadcast and a text news story) are sufficiently related for display in the manner shown in Fig. 2B. ('507 patent at 27:49-58.) First, text is derived from the television newscast, *e.g.* through extraction of the closed caption transcript that accompanies the broadcast. '507 patent at 27:15-21. The text extracted from the newscast's closed captioning is then compared to one or more text news stories to determine a degree of similarity. '507 patent at 28:15-27.

To determine the degree of similarity, the '507 patent relies on prior art methods: The degree of similarity is described as being determined "using any appropriate method" ('507 patent at 28:36-29:3.) As an example, the patent states that "the use of relevance feedback to determine the similarity between two text segments is well-known and is described in more detail in, for example, the textbook entitled *Introduction to Modern Information Retrieval,* by Gerard Salton, McGraw-Hill, New York, 1983..." ('507 patent at 28:55-59.)

After determining degrees of similarity, a number of the text news stories determined to be similar to the television news broadcast are then displayed alongside the television news broadcast in the manner shown in Fig. 2B. ('507 patent at 29:4-17.) "The related secondary information region 204 of the GUI 200 can display a predetermined number of relevant secondary information segments. ('507: 29:4-6.) "[G]enerally, it is desirable to display the secondary information segments that are most similar to the primary information segment that is being displayed."

SECOND CONCEPT - CLAIMS AT ISSUE: 39, 40, 43, 82, 83, 86

The '507 patent describes the second concept as "the capability to categorize uncategorized segments of information based upon the categorization of previously categorized segments of information." '507 patent at 29:45-48. The '507 patent describes the "categorization" within the discussion pertaining to the display of television broadcasts and related text news stories discussed above. "[T]he degree of similiarity between the subject matter content of the segments of the primary information (*e.g.*, news stories in audiovisual news programs) and segments of the secondary information (*e.g.*, news stories from text news sources) can also be used to categorize the primary information according to subject matter. ('507 patent at 29:50-55.

As new information "segments" are acquired, they are compared to other "segments" (or categorized based upon their similarity to previously categorized "segments." ('507 patent at 30:6-14. The degree of similarity is determined using conventional methods, *e.g.*, relevance feedback. '507 patent at 30:35-36. Previously categorized segments that are relevant to the new, uncategorized segment are identified, and the new segment is categorized based on the categories associated with the relevant, previously categorized segments (*e.g.*, claims 39 and 82).

B. THE '507 PATENT APPLICATION PROSECUTION HISTORY

The '507 patent issued based on application serial number 08/761,030 ("the '030 application), which was filed December 5, 1996. The '030 application did not claim benefit of any earlier U.S. application, nor did it claim benefit of any foreign application. With two minor exceptions, the issued claims of the the '507 patent are identical to the claims as-filed.[2]

APPLICATION

As explained above, broadly speaking, the claims at issue in the '507 patent relate to two overall concepts: (1) comparing data representing a first segment of a body of information to data representing a second segment of a body of information to determine whether the two segments are related, and then displaying the second segment along with the first segment if the two segments are related; and (2) using the subject matter categories of previously categorized segment(s) of a body of information, to assign one or more of those subject matter categories to an uncategorized segment of the body of information to which the previously categorized segment(s) is/are related as determined based on the degree of similarity between the previously characterized and uncharacterized segments of the body of information. Additionally, the '507 patent discloses and claims certain subsidiary concepts that can be used in implementing those two overall concepts. As filed, the '030 application included twelve independent claims, but only four of these independent claims – along with certain dependent claims – are germane to this Request (*viz.*, independent application claims 35, 36, 59, and 60, corresponding to issued claims 20, 39, 63, and 82, respectively). Rather than burden the Examiner with a detailed discussion related to claims not at issue in this reexamination, Requesters identify below those independent claims that are germane to the present request.

- **application claim 35 (method: overall concept (1) above)**;
- **application claim 36 and 40 (method: overall concept (2) above)**;

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[2] Application claims 40 and 41 (issued claims 43 and 44, respectively) were amended to change "system" to "method" in the preamble for consistency from their base claim (*i.e.*, to correct them), and application claim 54 (issued claim 58) was amended to insert a missing comma. See the February 20, 2001 Response to the December 19, 2000 Final Office Action.

- **application claim 59 (computer-readable medium: instructions for executing overall concept (1) above)**; and
- **application claim 60 (computer-readable medium: instructions for executing overall concept (2) above)**.

FIRST OFFICE ACTION

Requesters address herein those portions of the prosecution history that are relevant to the claims for which reexamination is sought, but do not address aspects of the prosecution unrelated to the claims for which reexamination is sought to avoid burdening the Examiner with information that is not germane to the Request.

The first, non-final Office Action was mailed on May 18, 2000. In that first Office Action, the Examiner indicated that application claims 35 and 59 (among others), which issued as claims 20 and 63, respectively, directed to the first concept above were allowable without amendment. There was no further examination of what ultimately issued as claims 20 and 63. Nor was there any further examination of dependent claims 68-103, which were added just after issuance of a Final Office Action and ultimately issued as claims 21-38 and 64-81.

Regarding "the most relevant art of record" with respect to claims 35 and 59, the Office Action's stated reasons for allowance were that Cobbley "fails to disclose or suggest to [sic] comparison of segments for the subsequent display of related segments by respective 'display means'." (Paper No. 10 at p. 5.) As discussed below, however, both Bender and Chesnais (among other references) disclose exactly what the Examiner indicated was not disclosed by Cobbley.

Application claims 36 (issued claim 39) - 41 and 60 (issued claim 82) were rejected under 35 U.S.C. § 102(e) as anticipated by Herz *et al.*, U.S. 6,020,883. Notably, with respect to Herz, the Office Action did not cite to any specific disclosure at all.

RESPONSE TO FIRST OFFICE ACTION

Requesters address only those portions of the Patent Owner's response to the First Office Action that are pertinent to the claims for which reexamination is sought.

With respect to application claim 36 (issued claim 39) and application claim 60 (issued claim 83) and their dependent claims, the Patent Owner did not amend the claims or dispute that Herz described at least a comparison of a customer profile (a previously categorized segment) to

a content profile (representing the "uncategorized segment"). (9/18/2000 Response at p. 10-11). Instead, the Patentees attempted to distinguish Herz on the basis of "subject matter" comparison, arguing that Herz does not teach "determining a degree of similarity between the subject matter content of an uncategorized segment and the subject matter content of each of one or more previously categorized segments." *Id.* at p. 9 (emphasis in original); *see also id.* at p. 11 ("Herz et al. do not teach that the result of a comparison of the customer profile and a content profile is a categorization of the content profile according to subject matter"). The patentee also attempted to distinguish Herz by arguing that Herz did "not teach that a customer profile is compared to a video program." *Id.* Thus, the patentees attempted to distinguish application claims 36 and 60 over Herz by arguing that Herz did not teach subject matter comparison or comparison to an uncategorized video segment. *Id.* at p. 9-12 (arguing with respect to claim 36); *id.* at p. 12 ("Claim 60, which recites limitations similar to those of Claim 36, is allowable as well.")

FINAL OFFICE ACTION

A second, final Office Action was mailed on December 19, 2000. The earlier statement of reasons for allowance was supplemented to address the claims that previously had been rejected based on Herz. In particular, regarding application claims **36-41,** and **60**, the Office Action stated that "the [applied] prior art, alone or in combination, does no [sic] teach or fairly suggest the categorizing according to subject matter an uncategorized body of information in which a degree of similarity is determined between subject matter content of each previously categorized segment and an uncategorized segment." As addressed in more detail below, at least Masand and Iwayama describe the above limitation that the Examiner believed was not disclosed by the prior art of record during the original procesution.

RESPONSE TO FINAL OFFICE ACTION

In response to the final Office Action, the patentees simply cancelled the non-allowed claims, *viz.*, application claims 18-33, 65, and 66. Additionally, they sought to add new claims 68-148, which were stated to be "similar in content" to other, previously allowed claims of different type. (For example, application claims 68-85 were method claims that were indicated to be similar in content to previously allowed system claims; application claims 86-103 were computer readable medium claims that were indicated to be similar in content to previously allowed system claims; etc.) Of those new claims, application claims **68-71, 74, 75, 78, 81, 84,**

85, 86-89, 92, 93, 96, 99, 102, 103, 104. and 107 are germane to this Request as issued claims **21-24, 27, 28, 31, 34, 37, 38, 64-67, 70, 71, 74, 77, 80, 81, 83, and 86**.

NOTICE OF ALLOWANCE

The '030 application was allowed as a result of the patentees' response to the final Office Action. The Notice of Allowance referred back to the statement of reasons for allowance set forth previously in the final Office Action and did not provide any further indication as to why the various claimed subject matter had been allowed.

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

The '507 patent is the subject of pending litigation in the U.S. District Court for the Western District of Washington, styled *Interval Licensing LLC, v. AOL, Inc. et al.*, Case No. 2:10cv01385 ("the Underlying Litigation"). *See* Exhibit OTH-A. Pursuant to 35 U.S.C. § 305, Requester respectfully urges that this Request be granted and reexamination conducted not only with "special dispatch," but also with "priority over all other cases" in accordance with 37 C.F.R. § 1.550(a) due to the ongoing nature of the underlying 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, Requester respectfully seeks such a scheduling order upon the granting of this Request.

D. CLAIM CONSTRUCTION

For purposes of this Request, the claim terms are presented by the Requester 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*, No. 07-1534 (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 District Court has yet to rule on the scope of these claim limitations, 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 one of ordinary skill in the art would understand them. *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 claim interpretation standards used in the courts are different from the claim interpretation standards used in the Office, any claim interpretations submitted herein for the purpose of demonstrating an SNQ are neither binding upon Requester in any litigation related to the '507 patent, nor do they necessarily correspond to the construction of claims under the legal standards that are mandated to be used by the courts in patent litigation. *See* 35 U.S.C. § 507; *see also* MPEP § 2286.04 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 '507 patent presented either implicitly or explicitly, as discussed with reference to Patent Owner's infringement contentions in OTH-B, should not be viewed as constituting, in whole or in part, Requester's 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, Requester expressly reserves the right to present its own interpretation of such claims at a later time, which interpretation may differ, in whole or in part, from that presented herein.

Requesters note that certain claim terms in the '507 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.[3]

E. INFRINGEMENT CONTENTIONS

The Requester has considered the specification of the '507 patent for determining the scope of the claim elements. However, where the specification is unclear or does not provide sufficient claim support, the Requester identifies 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 the Patent Owner's Infringement Contentions, the Patent Owner's interpretation of the claims are unduly broad and/or ambiguous. The Requester does not agree with the Patent Owner's claim interpretation and/or claim construction, but the Requester requests 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 C.F.R. § 1.104(c)(3) and MPEP § 2617(III).

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

IV. SUMMARY OF THE PRIOR ART

A. BENDER

Bender was published in 1988 and thus qualifies as prior art under 35 U.S.C. § 102(b). Bender pertains to the co-presentation or supplemental presentation concept covered by independent claims 20 and 63, and their various dependent claims. In particular, Bender discloses the concept of using a computer-based system ("the news editor has been replaced by the personal computer") to display supplementary content along with primary telecast content,

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[3] In fact, the Requesters are pursuing an invalidity defense in the Concurrent Litigation based on the indefiniteness of certain terms that appear in the claims that are the subject of this Request..

while the telecast content is shown. Bender at p. 82. Bender's comparison and display system provided "a more detailed examination of the same news articles which are summarily presented during a traditional one half hour television news show." *See* Bender, p. 81. This is facilitated by accessing "[a] variety of both local and remote databases." *Id.* By way of example, Bender includes a figure (reproduced below) showing an original broadcast with a map in the background (top, center); a revised version of the broadcast with a different map locally inserted into the audiovisual document (lower, left); and a revised version of the broadcast with text that is related to the broadcast story inserted into the audiovisual document (lower right).

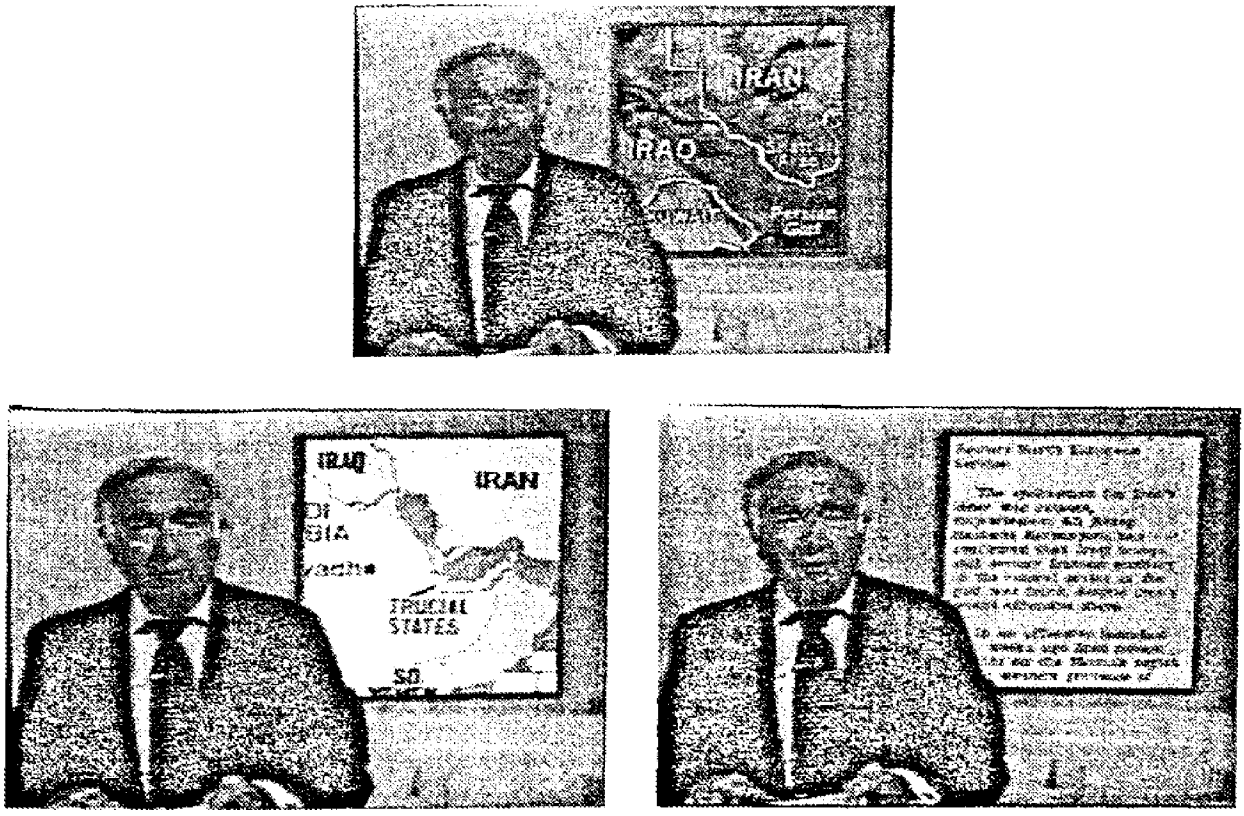


Figure 1: Locally Packaged Television. On the top is the original broadcast. On the lower left, a map is inserted locally. On the right, the map is replaced with text from the wire services.

Bender at p. 85

In another example (illustrated below), Bender shows a broadcast (bottom right) is presented along with the text of related news wire stories (left), along with pertinentstill images from the broadcast (upper right).

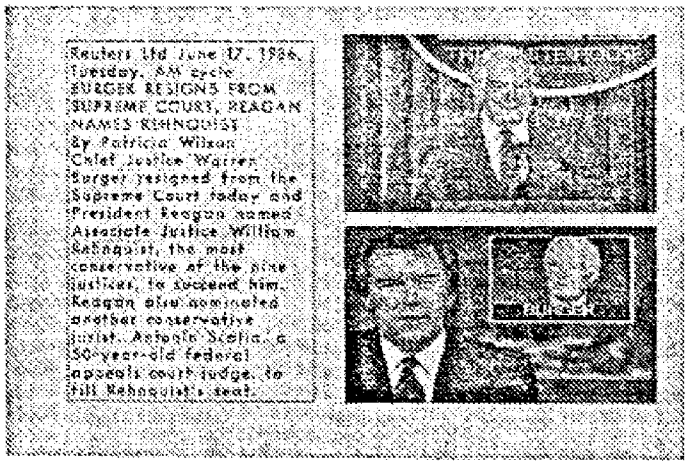


Figure 2: Network Plus. The live broadcast is in the lower right quadrant. Salient stills are in the upper right. Text from the wire services is on the left.

Bender at p. 86

With respect to implementation, Bender explains that a processor scans the closed captioning data that is normally transmitted with the broadcast information to determine the subject of the story being broadcast. Bender at p. 81. Additionally, "[s]elected frames drawn from the telecast and stored in local memory [can be] presented as well." (*See* Bender, pp. 81 and 83 (video stills)). Prior to the broadcast, news articles will have been collected (*i.e.*, stored) and analyzed to develop keyword lists based on frequency. Bender, p. 82. As the broadcast occurs, the keyword lists corresponding to the newswire stories are compared to the closed captioning data corresponding to the broadcast stories to determine whether the newswire stories are related to the broadcast stories. *Id.* If the number of keywords common to both the broadcast story and a text or trial story exceeds a predetermined threshold, the two are deemed to be related such that the textual newswire story can be displayed along with the broadcast television story. *See* Bender, p. 82. Thus, as required by claims 20 and 63, the system compares data representing one segment of information (*e.g.*, closed caption data for the news broadcast) to data representing a different segment of information (*e.g.*, keyword data from newswire stories) to determine whether the segments are related, *i.e.*, "match," and then displays the related segments together in real time. This is illustrated, for example, in Figure 3 (Bender, p. 86), reproduced below:

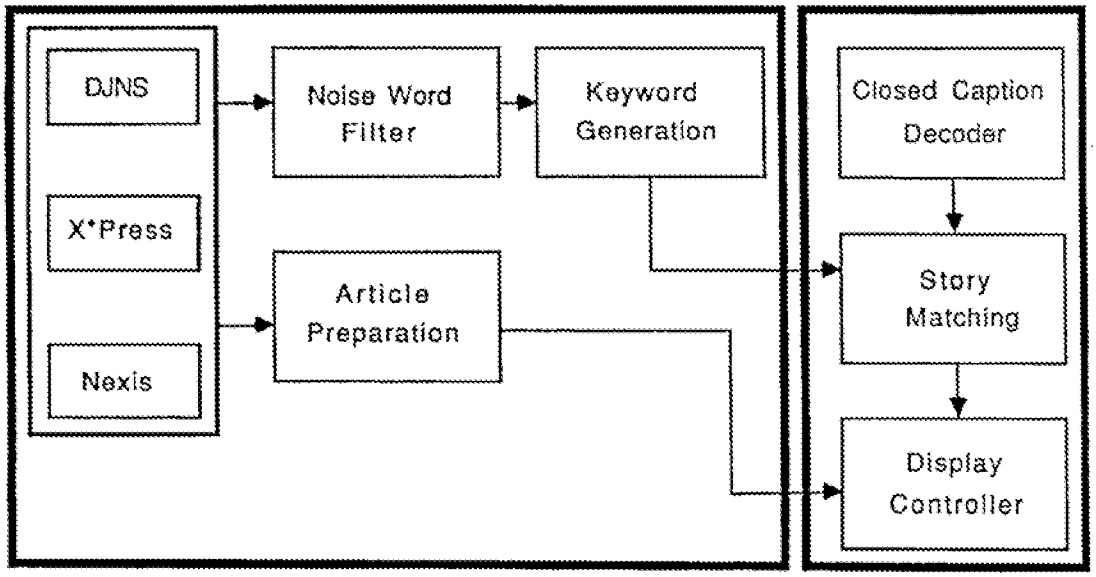


Figure 3: Network Plus Block Diagram. The left side of the figure diagrams the processing which takes place prior to the telecast. The right side diagrams the real time processing.

Bender at p. 86

Thus, Bender discloses the alleged invention claimed in at least independent claims 20 and 63 (concept 1) of the '507 patent.

B. CHESNAIS

Chesnais was published in June 1995 and thus qualifies as prior art under 35 U.S.C. § 102(b).

Chesnais discloses a personalized electronic newspaper system called "Fishwrap" to which an individual may subscribe via an internet hypertext link. The system configures a personalized user profile with which "to create a section with news related to career choices; news that will keep the individual abreast of trends in specific industries . . . ." Chesnais, p. 275 The system functions by using parameters in the user profile (such as geographic location), generates various filters that locate related news content. Chesnais at p. 275.

News items, including article contents and news wire photos are streamed into Fishwrap from many different sources: satellite, radio frequencies, email, and phone line. *See* Chesnais at p. 277.

Supplier programs translate incoming news items into a standard, internal data structure representation and Fishwrap adds a signature representing an inference made from the news item

data. *See* Chesnais at p. 277. These signatures (an example of which is shown in Fig. 9 of Chesnais) are created for "all news items" to characterize the news items. *See* Chesnais at p. 278-79. When a reader requests generation of a newspaper, an article is retrieved if it (*i.e.*, if its signature) matches one of the reader's global topics of interest, or personal topic definitions. *Id.* at p. 277. When an articles is rendered, Fishwrap also checks its photo and audio databases to see if there are photos and sound recordings that relate to, *i.e.* "match," the story. *Id.* As shown in Fig. 2, an article is displayed to the user along with related photos (thumbnails) and audio.

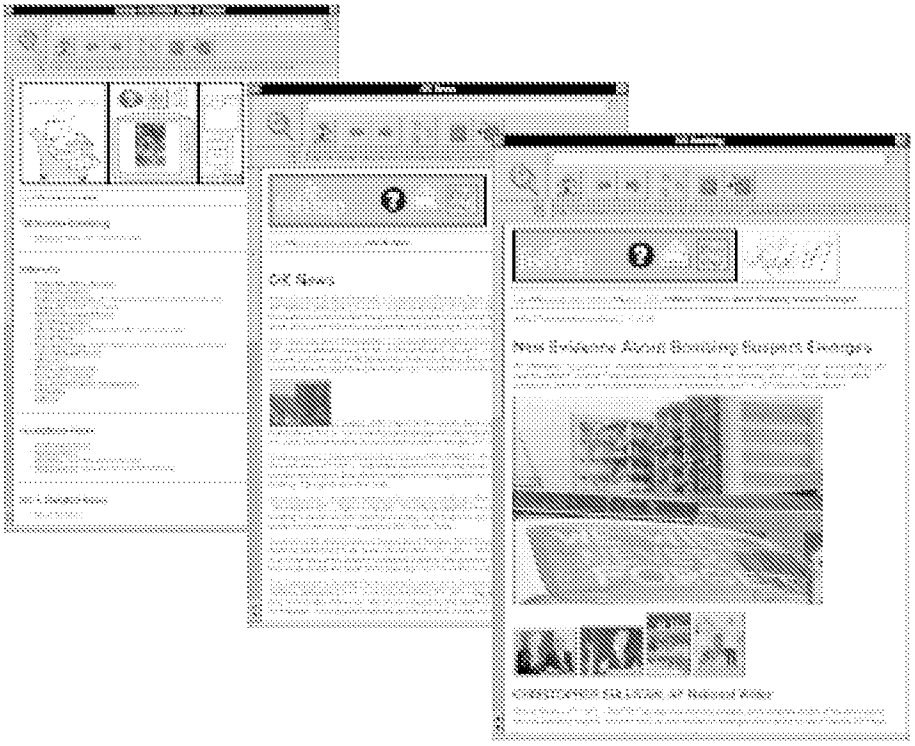


Fig. 2. A Fishwrap reader starts with their edition's table of contents, then focuses on a particular news topic and, ultimately, articles that are illustrated with graphics and audio.

Chesnais at p. 276

Thus, Chesnais discloses the invention claimed in at least independent claims 20 and 63 (concept 1) of the '507 patent.

C. WST GUIDELINES

The Wire Service Transmission Guidelines, Special Report, No. 84-2 ("WST Guidelines") was published in June of 1984, and thus qualifies as prior art under 35 U.S.C.

§ 102(b). The WST Guidelines, published by the American Newspaper Publishers Association (ANPA), disclose guidelines for the transmission of news items over wire services. The WST Guidelines specify the format and content of message headers that are appended to news wire items. The header fields include "category" and "keyword." WST Guidelines, p. 2. The WST Guidelines also indicate that the Associated Press uses these guidelines. *Id.* at 1

D. AP STYLEBOOK

The Associated Press Stylebook and Libel Manual ("AP Stylebook"), 29th Edition, was published in 1994, and thus qualifies as prior art under 35 U.S.C. § 102 (b). The AP Stylebook sets forth the style guidelines for AP news items. Particularly, the AP Stylebook sets forth style requirements for AP photo captions, and coding requirements for news wire transmissions. AP Stylebook, pp. 293-302. "Every news item in the AP report has a keyword slug line." *Id.* at 299.

E. JOACHIMS

Joachims was published May 29, 1995 and thus qualifies as prior art under 35 U.S.C. § 102(b).

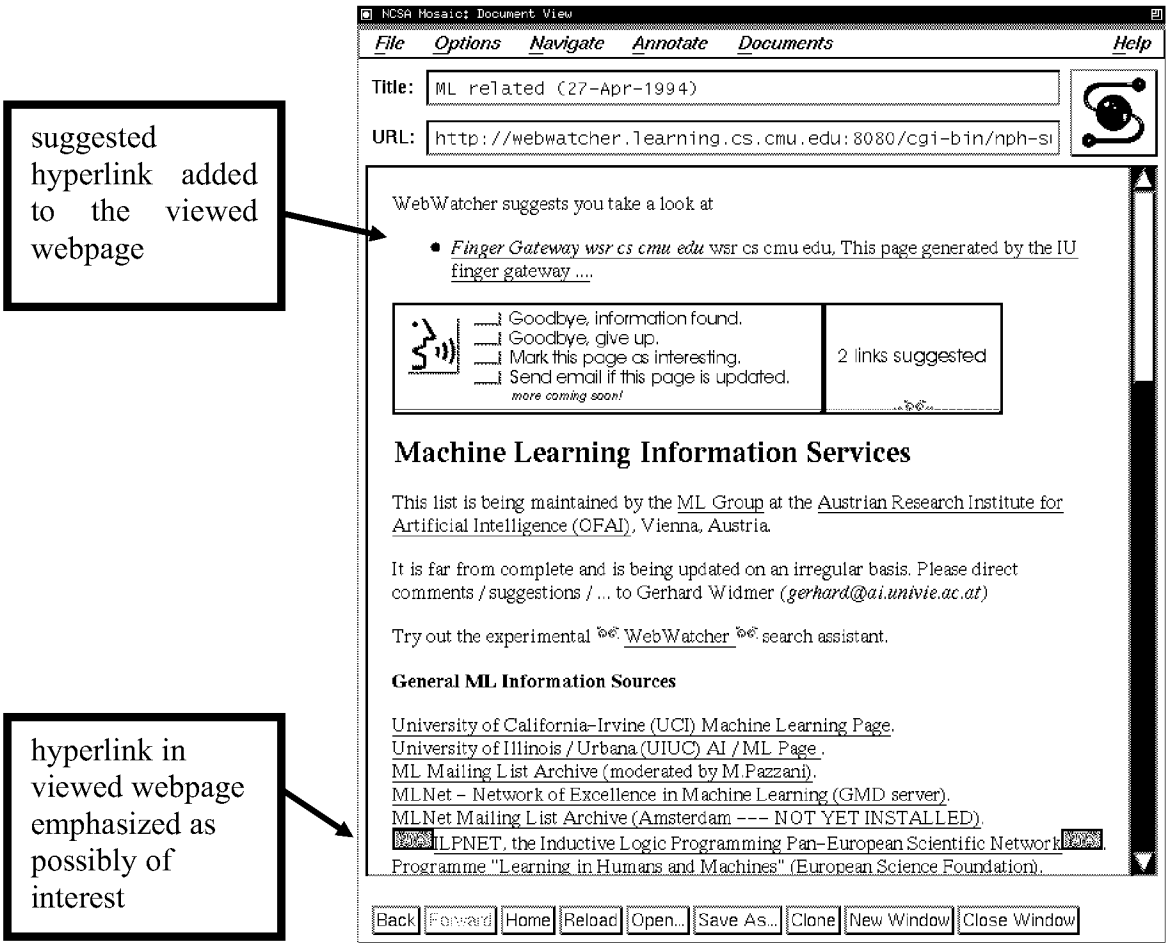
Joachims discloses a system called "WebWatcher," which compares different segments of information, in the form of webpage content, in order to subsequently display related segments of information, in the form of hyperlinks. *See* Joachims at p. 1. Joachims describes "extracting information from the structure of hypertext [and] identif[ying] pages that are related to a given page." Joachims at Abstract. If a user expresses interest in a webpage, WebWatcher compares information related to that webpage to information on other pages and then displays for the user "a list of 10 pages which WebWatcher estimates to be closely related." Joachims at p.3, left column; *see also* sections 3.3 and 3.4 (describing how webpage information is compared to determine which pages have "the highest probability of being most similar").

Joachims explains the process of determining related webpages in terms of building a table representation of the Web (reproduced below), with a row for each given webpage (*e.g.*, Tom's webpage, Dayne's webpage, etc.) and columns for each webpage that is linked to from the given webpage. *See* Joachims at p. 4. Then, as Joachims explains, if one wants to find pages related to, say, the WWatcher page (which a user might be viewing at a given moment), "we have to look at the columns of the matrix and find the ones most similar to the *WWatcher*

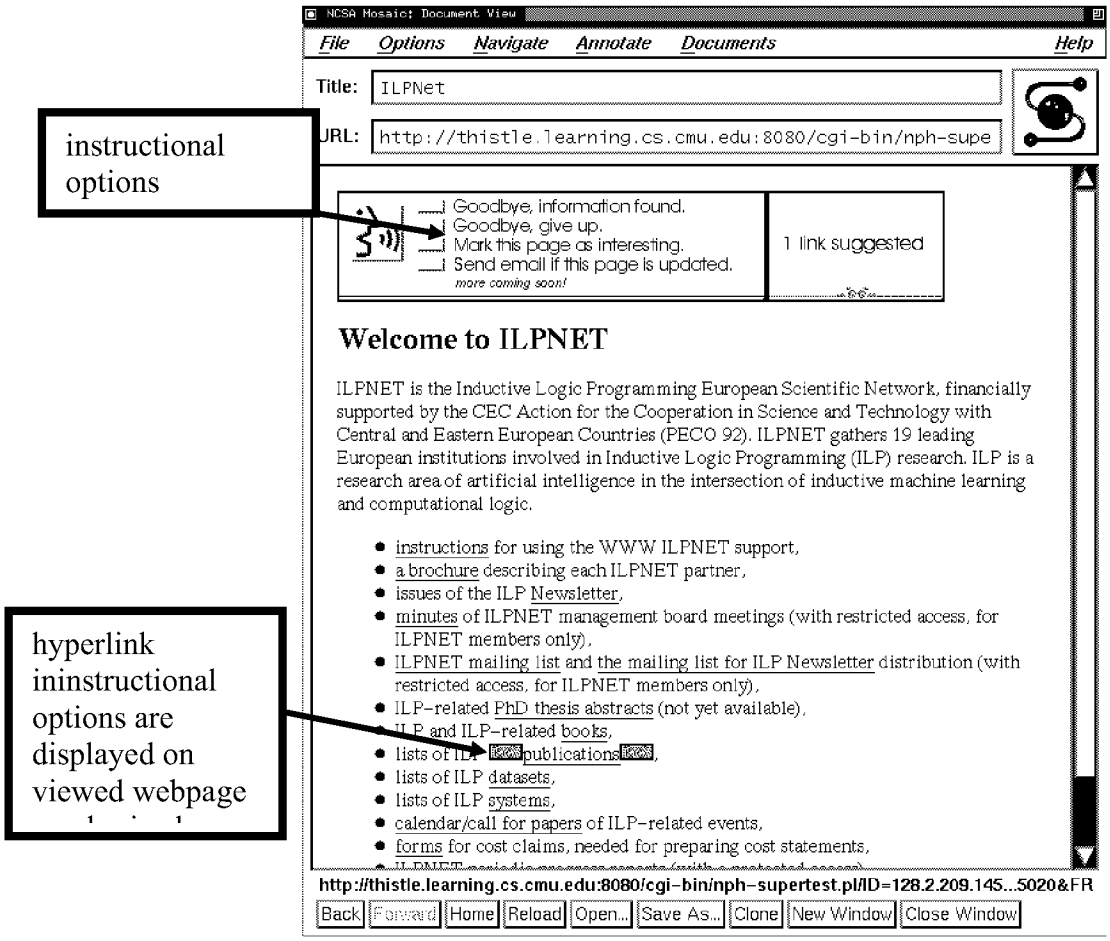
column[; the] pages associated with the *n* most similar columns are returned by [the] *Related* [function]" and are offered to the user as links that he or she may select. Joachims at p. 4.

page	hyperlink to *WWatcher*	*LearnLab*	*ILPNet*	...
Tom	1	1	0	
Dayne	1	1	0	
Thorsten	1	1	0	
Projects	1	1	0	
Katharina	0	0	1	
MLResour	1	0	1	
⋮				⋱

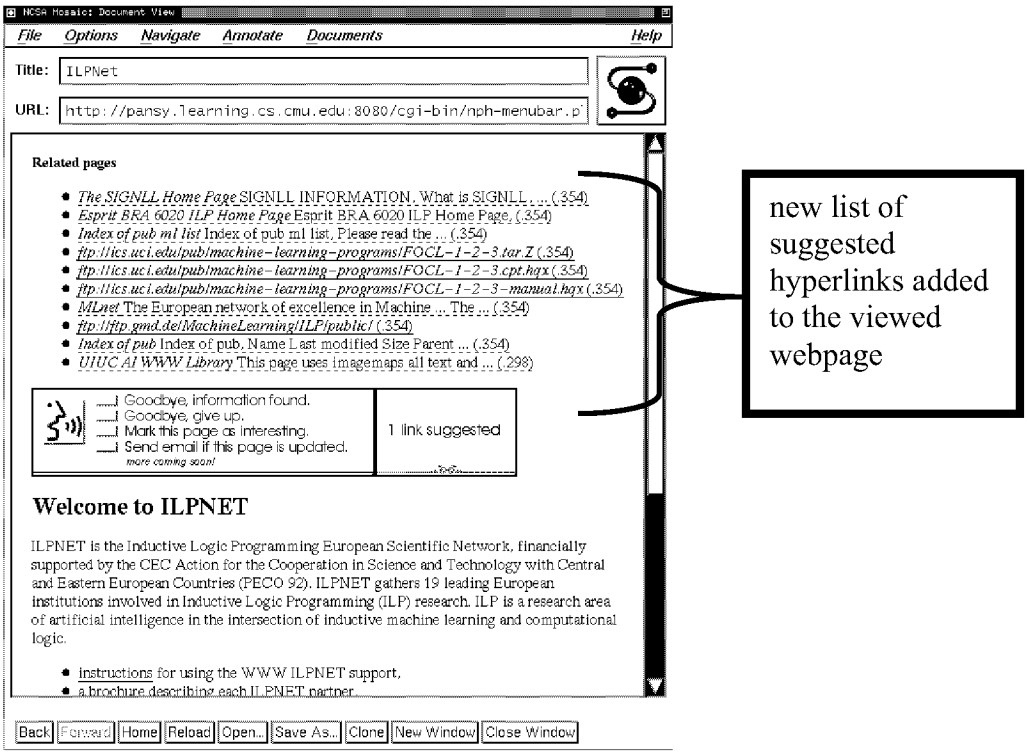
In terms of user interface, once the user has activated the WebWatcher functionality in Joachims, the program will apprise the user of additional webpages he or she might wish to access by 1) highlighting or emphasizing hyperlinks already present in the webpage the user is viewing (*e.g.*, with a pair of "eyes" inserted next to the hyperlink), and/or 2) providing a list of one or more additional hyperlinks to pages the user might wish to access. See, for example, page 1, section 2 and Figure 3, reproduced below.



If the user selects one of the suggested hyperlinks, *e.g.*, the highlighted ILPNET link in the shown example, the system displays the selected page, along with emphasized hyperlinks in it and a menu bar of instructional options the user can select, *e.g.*, "Goodbye, information found," "Goodbye, give up," "Mark this page as interesting," and "Send email if this page is updated," as shown below:



If the user identifies the selected webpage as being of interest, the system will display it along with another list of hyperlinks to webpages the system determines to be related, as shown in Figure 5, reproduced below.



Thus, Joachims discloses the invention claimed in at least independent claims 20 and 63 (concept 1) of the '507 patent.

F. PATENT OWNER ADMISSIONS[4]

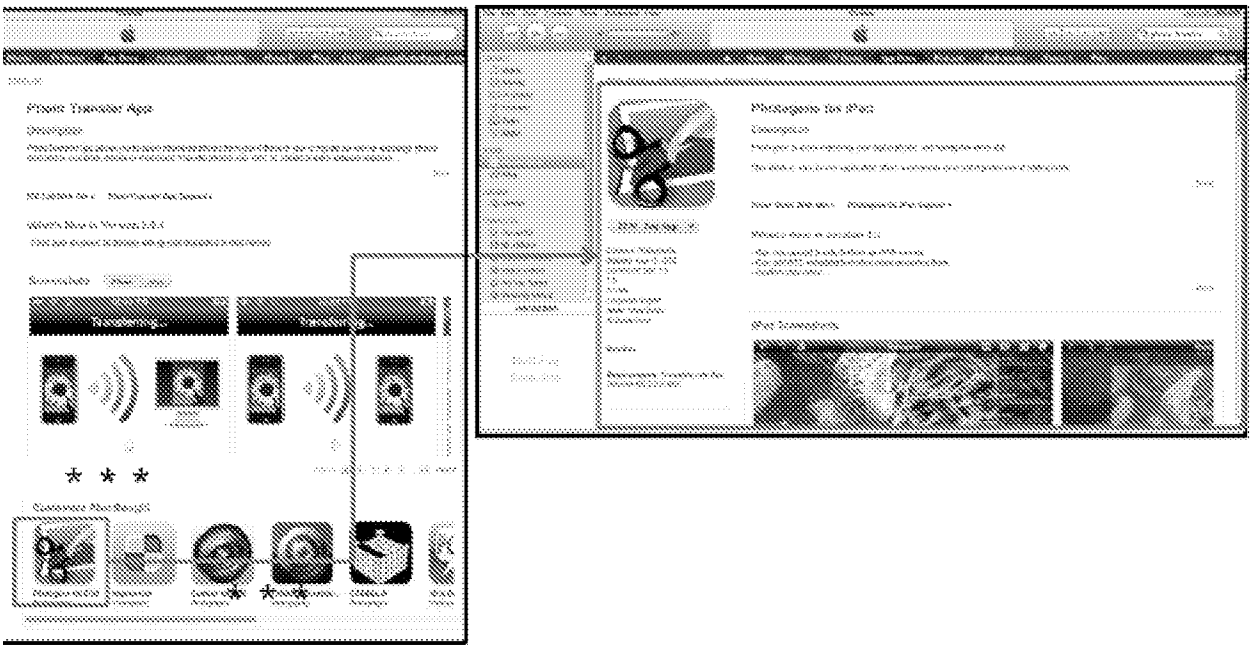
The '507 patent includes admissions that the use of relevance feedback methods to compare text was well known in the art. *See, e.g.*, the '507 patent at 28:55-29:3 ("The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). Notably, the '507 patent states (emphasis added) at 28:36-38, that "[t]he degree of similarity can be determined using any appropriate method, such as, for example, relevance feedback." In other words, the '507 patent itself makes clear that there is nothing particularly significant or important – in terms of imparting patentability (either novelty or nonobviousness)

[4] Patent Owner admissions can be combined with prior art patents and printed publications. MPEP § 2217(III).

to a claim – about using relevance feedback to determine similarity, and it is just one of multiple techniques that could be used.

The '507 patent also includes admissions that data acquired from news sources must be digital to process it: "As will be apparent from the description below, the processing of the data representing the primary and secondary information generally requires that the data be in digital form. Text data acquired from online text sources, for example, is acquired in digital form and so can be used directly in such processing." *See*, *e.g.*, the '507 patent at 12:3-8.

The Patent Owner has also made contentions about how broad terms of the '507 patent should be construed in its contentions for infringement. In particular, the Patent Owner has contended that static images constitute "audiovisual" information. This contention is exemplified in OTH-B in a comparison of a static image with the claims of the '507 patent where the Patent Owner has identified a static image (with arrows) as meeting "audiovisual" information as recited by claims of the '507 patent:



OTH-B, Infringement Contentions at p. 18

G. MASAND

Masand was published June 1992, thus it qualifies as prior art under 35 U.S.C. § 102(b).

Masand pertains to the categorization technique recited in independent claims 39 and 82, and their various dependent claims. In particular, Masand discloses a technique for

automatically categorizing a newly acquired news story by comparing it to previously categorized stories, and assigning categories to the newly acquired story based on the categories of the previously categorized stories determined to be most similar to the newly acquired story. *See* p. 59. Specifically, Masand disclosed a technique for comparing newly acquired stories to the Dow Jones Press Release News Wire's database of previously categorized stories. Documents were categorized using about 350 distinct codes, grouped into six categories (Industry, Market Sector, Product, Subject, Government Agency, and Region).

Masand teaches the use of Memory Based Reasoning (MBR) to classify (*i.e.,* categorize) new, unseen news stories. *See* Abstract. MBR solves a new task (i.e., classifying a new story) by looking up examples of tasks (i.e., previously coded stories) similar to the new task and using the similarity between the new story and the previously coded stories to assign a code (i.e., category) to the new story. *See* Masand, p. 61. The MBR algorithm uses text from a new story, including single words and capitalized word pairs, to construct a relevance-feedback database query. *Id.* The query was run against the Dow Jones Press Release News Wire's database of previously coded stories using a text retrieval system called SEEKER.

The query returns a weighted list of previously coded documents that are near matches to the new document. *Id.* Codes are then assigned to the new document by combining the codes assigned to the k-nearest matches by score. *Id.* The best codes are chosen by implementing a score threshold. *Id.*

Thus, Masand discloses the invention claimed in at least independent claims 39 and 82 (concept 2) of the '507 patent.

H. IWAYAMA

Iwayama was published July 9-13, 1995, thus it qualifies as prior art under 35 U.S.C. § 102(b).

Iwayama pertains to the categorization technique recited in independent claims 39 and 82, and their various dependent claims. In particular, Iwayama discloses a technique for "search[ing] the *K*-nearest training documents [previously categorized documents] to the test document [the uncategorized document] and us[ing] the categories assigned to those training documents" to categorize the "test document." Iwayama at p. 273. Specifically, Iwayama discloses a categorization method comprising four steps: "1. Construct clusters C . . . 2. Calculate the posterior probability $P(c_i|d_{test})$ [i.e., degree of similarity] for a test document d_{test}

and every cluster c_i . . . 3. Sort the posterior probabilities and extract the *K*-nearest training documents . . . 4. Assign to the test document categories based on the extracted *K*-nearest documents." Iwayama at p. 273. In one particular embodiment disclosed by Iwayama, the method may be used to perform a full search, such as "MBR (Memory Based Reasoning) . . . for calculating a measure of similarity between a test document and every training document." Iwayama at p. 273. [5] In this example, "each training document belongs to a singleton cluster whose only member is the document itself." Iwayama at p. 274. Thus, Iwayama categorizes the uncategorized documents (i.e., test documents) according to subject matter and involves "calculating a measure of similarity between a test document and every training document." Iwayama at p. 273..

Based on this disclosure of categorizing an uncategorized document by determining its similarity to previously categorized documents, Iwayama discloses the alleged invention claimed in at least independent claims 39 and 82 (concept 2) of the '507 patent.

I. YUASA

Yuasa was published on May 2, 1995 and thus qualifies as prior art under 35 U.S.C. § 102(b). Yuasa discloses a method of classifying documents. Yuasa at Abstract. The documents can be classified based on the degree of similarity between documents, *e.g.*, number of words that match between documents, and the importance given to those words. Yuasa at Abstract, Claim 1, and ¶¶ [0004], [0011], [0018], [0046], and [0058]-[0060]. When a match between a previously classified document and an unclassified document is found, the unclassified document is assigned to the classification of the other matched document. Yuasa at ¶¶ [0011], [0018], [0046] and [0058]-[0060].

Thus, Yuasa discloses the invention claimed in at least independent claims 39 and 82 (concept 2) of the '507 patent.

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[5] Iwayama discloses multiple embodiments. A second embodiment, not addressed herein uses clusters of documents having similar categories and works in much the same way as the embodiment discussed herein because, as noted by Iwayama, clusters could be single documents and the methods, except for the clustering step, would be the same. In such case, "each training document belongs to a singleton cluster whose only member is the document itself. Iwayama at pp. 273-74. The first method and system, which is addressed herein is referred to as the "full search" in Iwayama.

V. SUBSTANTIAL NEW QUESTIONS OF PATENTABILITY UNDER 37 C.F.R. § 1.510 (B)

Section V identifies the substantial new questions of patentability ("SNQs") presented by each reference. A detailed explanation of each proposed rejection in view of these references is included in Section VI, below.

A. BENDER RAISES AN SNQ WITH RESPECT TO CLAIMS 20-24, 27, 28, 31, 34, 37, 38, 63-67, 70, 71, 74, 77, 80, AND 81 OF THE '507 PATENT

Bender was published in 1988 and thus qualifies as prior art under 35 U.S.C. § 102(b).

Despite the fact that Bender teaches the preferred embodiment of the '507 patent, Bender was neither cited nor discussed during original prosecution of the '507 patent. Bender describes several new, non-cumulative technical teachings not previously considered by the Examiner, including the comparison and subsequent display of related segments of information.

Importantly, the Examiner stated that the applied prior art "fails to disclose or suggest [...] comparison of segments for the subsequent display of related segments by respective 'display means'" as recited in claims 20 and 63 (May 18, 2000 Office Action, p. 5). Bender teaches a system that compares different segments of information, and subsequently displays related segments of information based on that comparison. "[The system] matches stories during the broadcast [and] annotates the television news with articles drawn from a local copy of wire service news material selected and presented along with the video in real time". Bender at pp. 81-83 and 86. This comparison and display of related segments can be seen in Figure 2 of Bender:

Figure 2: Network Plus. The live broadcast is in the lower right quadrant. Salient stills are in the upper right. Text from the wire services is on the left.

Because Bender provides a new and non-cumulative technical teaching of this limitation that is found in claims 20-24, 27, 28, 31, 34, 37, 38, 63-67, 70, 71, 74, 77, 80, and 81 of the '507 patent, a reasonable Examiner would consider Bender important in deciding the patentability of these claims. Moreover, Bender alone, or in combination with other references discussed below, teaches every limitation found in claims 20-24, 27, 28, 31, 34, 37, 38, 63-67, 70, 71, 74, 77, 80, and 81. Accordingly, Bender raises an SNQ with respect to claims 20-24, 27, 28, 31, 34, 37, 38, 63-67, 70, 71, 74, 77, 80, and 81 of the '507 patent and the Examiner should order reexamination of these claims.

B. Bender in Combination with Patent Owner Admissions Raises an SNQ with Respect to Claims 28, 37, 71, and 80 of the '507 Patent

Bender was published January 12-13, 1988, thus making it prior art under 35 U.S.C. § 102(b). Bender was neither cited nor discussed in the prosecution of the '507 patent; thus, Bender in combination with Patent Owner Admissions is new art. In addition to the SNQ discussed above, the combination of Bender in combination with Patent Owner Admissions presents an additional SNQ. In particular, claims 37 and 80 recite, "acquiring digital data." Bender in combination with Patent Owner admissions discloses this limitation (*e.g.*, "Prior to the broadcast, news gathering agents contact news wire sources (Dow Jones News Service, X*Press and NEXIS).") Bender at pp. 81-82. These news services send information digitally. See OTH-B (*e.g.*, "The product, called Newshedge [...] gives users access to "live" news from [...] Dow Jones News Service. [...] Newshedge funnels downloaded data into a stream"). Moreover, the closed captioning is digital, therefore the news wire sources must also be digital so that the closed captioning can be compared to the news wire sources. Bender at pp. 81-82

To the extent that it is viewed that Bender does not disclose acquiring digital data, the '507 patent includes admissions that data acquired from news sources must be digital to process it as taught by Bender: "As will be apparent from the description below, the processing of the data representing the primary and secondary information generally requires that the data be in digital form. Text data acquired from online text sources, for example, is acquired in digital form and so can be used directly in such processing." See *e.g.*, '507 patent at 12:3-8. These admissions can be used in combination with prior patents and printed publications to establish an SNQ. See: MPEP § 2617(III). Per MPEP § 2617, admissions, which include admitted prior art, can also be used during the examination phase of reexamination, i.e., in claim rejections. Section

2617 refers the reader to MPEP § 2258. MPEP § 2258(I)(F)(2) states, "In Seiko, [Ex parte Seiko Koko Kabushiki Kaisha, 225 USPQ 1260 (Bd. Pat. App. & Inter. 2984)] the Board relied on In re Nomiya, 509 F.2d 566, 184 USPQ 607 (CCPA 1975) holding an admission of prior art in the specification of the parent undergoing reexamination is considered prior art which may be considered as evidence of obviousness under 35 U.S.C. 103."

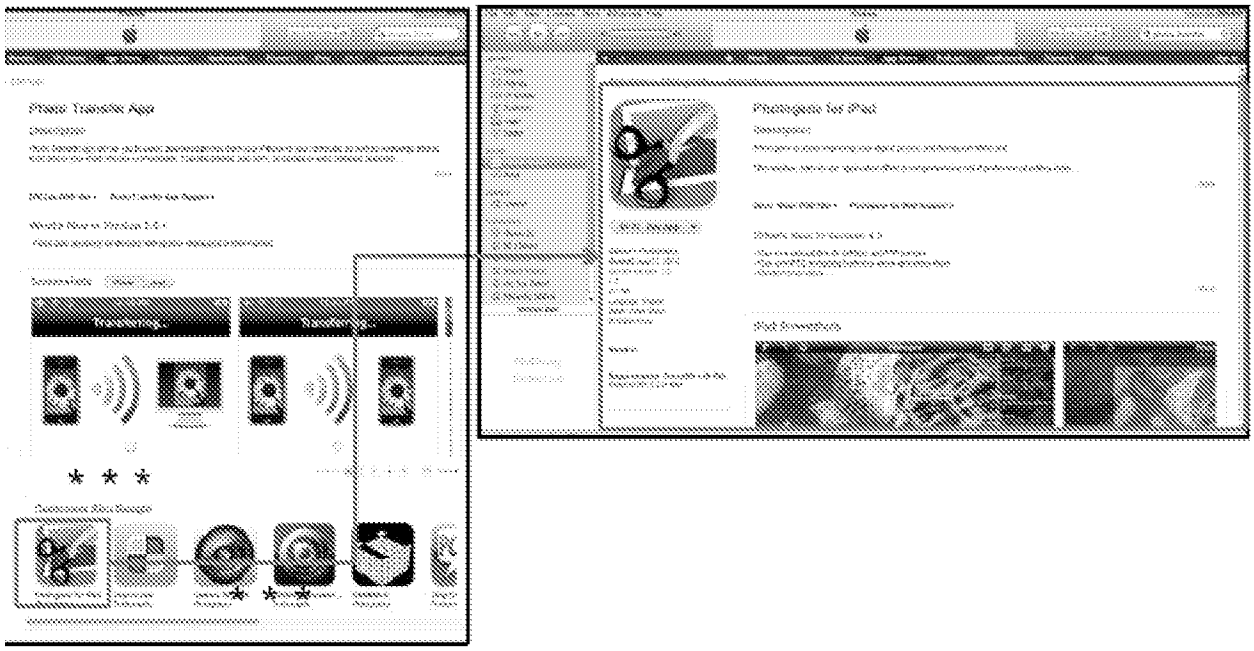
In addition, claims 28 and 71 recite "determining the degree of similarity [...] using a relevance feedback method." Bender in combination with Patent Owner Admissions discloses this limitation. More specifically, the '507 patent includes admissions that the use of relevance feedback methods to compare text was well known in the art. See *e.g.*, '507 patent at 28:55-29:3 ("The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). Notably, the '507 patent states (emphasis added) at 28:36-38, that "[t]he degree of similarity can be determined using <u>any</u> appropriate method, <u>such as, for example</u>, relevance feedback." In other words, the '507 patent itself makes clear that there is nothing particularly significant or important – in terms of imparting patentability (either novelty or nonobviousness) to a claim – about using relevance feedback to determine similarity, and it is just one of multiple known techniques that could be used. These admissions can be used in combination with prior patents and printed publications to establish an SNQ. See: MPEP § 2617(III). Per MPEP § 2617, admissions, which include admitted prior art, can also be used during the examination phase of reexamination, i.e., in claim rejections. Section 2617 refers the reader to MPEP § 2258. MPEP § 2258(I)(F)(2) states, "In Seiko, [Ex parte Seiko Koko Kabushiki Kaisha, 225 USPQ 1260 (Bd. Pat. App. & Inter. 2984)] the Board relied on In re Nomiya, 509 F.2d 566, 184 USPQ 607 (CCPA 1975) holding an admission of prior art in the specification of the parent undergoing reexamination is considered prior art which may be considered as evidence of obviousness under 35 U.S.C. 103."

Because Bender in combination with Patent Owner admissions provides a new and non-cumulative technical teaching of this the limitations that are found in claims 28, 37, 71, and 80 of the '507 patent, a reasonable Examiner would consider Bender in combination with Patent Owner admissions important in deciding the patentability of these claims. Moreover, Bender in combination with Patent Owner admissions alone, or in combination with other references discussed below, teaches every limitation found in claims 28, 37, 71, and 80. Accordingly,

Bender in combination with Patent Owner admissions raises an SNQ with respect to claims 28, 37, 71, and 80 of the '507 patent and the Examiner should order reexamination of these claims.

C. BENDER IN COMBINATION WITH CHESNAIS AND PATENT OWNER ADMISSIONS RAISES AN SNQ WITH RESPECT TO CLAIMS 22, 23, 65, AND 66 OF THE '507 PATENT

Bender was published January 12-13, 1988; Chesnais was published in June 1995, thus making each reference prior art under 35 U.S.C. § 102(b). Bender and Chesnais were neither cited nor discussed in the prosecution of the '507 patent; thus, Bender in combination with Chesnais and Patent Owner Admissions is new art. Bender alone presents an SNQ for independent claims 20 and 63 as discussed above. In addition, Bender in combination with Chesnais and Patent Owner Admissions presents additional new, non-cumulative technical teachings not previously considered by the Examiner, including a means for identifying photo and sound recordings that match a retrieved news article. Chesnais at p. 277. Moreover, Patent Owner has admitted that images, such as those disclosed in Chesnais, constitute the recited audiovisual information within the scope of the '507 patent.



OTH-B, Infringement Contentions at p. 18

Because Bender in combination with Chesnais and Patent Owner Admissions provides a new and non-cumulative technical teaching of this limitation that is found in claims 22, 23, 65, and 66 of the '507 patent, a reasonable Examiner would consider Bender in combination with Chesnais and Patent Owner Admissions important in deciding the patentability of these claims.

Moreover, Bender in combination with Chesnais and Patent Owner Admissions teaches every limitation found in claims 22, 23, 65, and 66. Accordingly, Bender in combination with Chesnais and Patent Owner Admissions raises an SNQ with respect to claims 22, 23, 65, and 66 of the '507 patent and the Examiner should order reexamination of these claims.

D. CHESNAIS IN COMBINATION WITH AP STYLEBOOK AND WST GUIDELINES RAISES AN SNQ WITH RESPECT TO CLAIMS 20-24, 27, 28, 31, 34, 37, 38, 63-67, 70, 71, 74, 77, 80, AND 81 OF THE '507 PATENT

Chesnais was published in June 1995; AP Stylebook was published in 1994 and the WST guidelines were published in June 1984. Thus, all three qualify as prior art under 35 U.S.C. § 102(b). Additionally, none of these three prior art publications were cited or discussed in the prosecution of the '507 patent. Chesnais in combination with AP Stylebook and WST Guidelines describes several new, non-cumulative technical teachings not previously considered by the Examiner, including the comparison and subsequent display of related segments of information.

Importantly, the Examiner stated that the applied prior art "fails to disclose or suggest […] comparison of segments for the subsequent display of related segments by respective 'display means'" as recited in claims 20 and 63 (May 18, 2000 Office Action, p. 5). Chesnais teaches a system named "Fishwrap" that performs comparison of different segments of information, as well as subsequent display of a segment of information based on that comparison. "Fishwrap's content understanding module compares each story to the knowledge base." (Chesnais, p. 278). "The article is then rendered by the front end application [and] Fishwrap also checks its photo and audio databases to see if there are photos and sound recordings that match the story." (Id. at p. 277). "One blind student appreciated the . . . audio segments for illustrations." (Id. at p. 281). In other words, upon display of a news article, Chesnais searches its databases for related photos and other information that are then displayed in conjunction with the article. As shown in Fig. 13 (reproduced below), Fishwrap displays an article ("New Evidence About Bombing Suspect Emerges"), which is one segment of information, and also displays photos (thumbnails), a second segment, that it has determined "match" or are related to the news article being displayed.

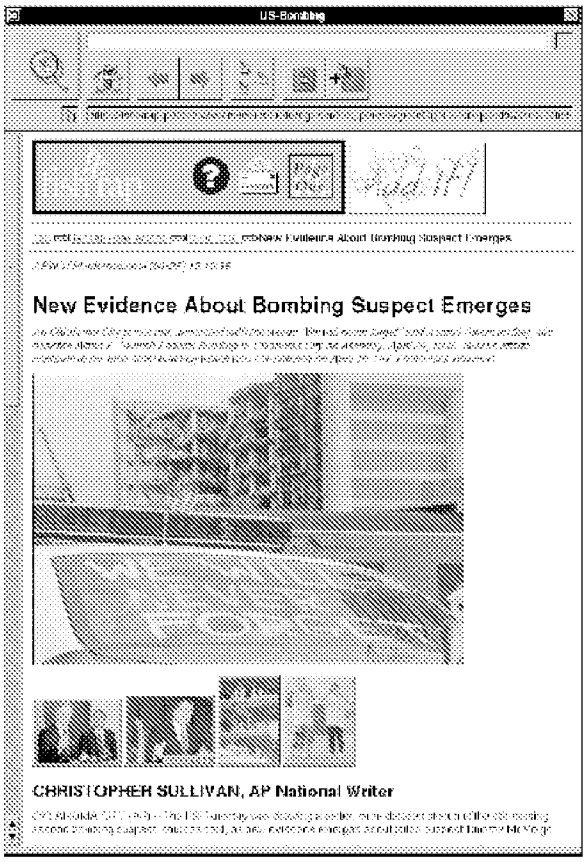


Fig. 18. An article illustrated with photographs.

Because Chesnais in combination with AP Stylebook and WST Guidelines provides a new and non-cumulative technical teaching of this limitation that is found in claims 20-24, 27, 28, 31, 34, 37, 38, 63-67, 70, 71, 74, 77, 80, and 81 of the '507 patent, a reasonable Examiner would consider Chesnais important in deciding the patentability of these claims. Moreover, as discussed in more detail below, Chesnais in combination with AP Stylebook and WST Guidelines alone, or in combination with other references discussed below, teaches every limitation found in claims 20-24, 27, 28, 31, 34, 37, 38, 63-67, 70, 71, 74, 77, 80, and 81. Accordingly, Chesnais in combination with AP Stylebook and WST Guidelines raises an SNQ with respect to claims 20-24, 27, 28, 31, 34, 37, 38, 63-67, 70, 71, 74, 77, 80, and 81 of the '507 patent and the Examiner should order reexamination of these claims.

E. Chesnais in Combination with AP Stylebook, WST Guidelines, and Patent Owner Admissions Raises an SNQ with Respect to Claims 28 and 71 of the '507 Patent

Chesnais was published in June 1995; AP Stylebook was published in 1994 and the WST guidelines were published in June 1984. Thus, all three qualify as prior art under 35 U.S.C. § 102(b). Additionally, none of these three prior art publications were cited or discussed in the prosecution of the '507 patent. Chesnais in combination with AP Stylebook, WST Guidelines, and Patent Owner Admissions describes additional new and non-cumulative technical teachings not previously considered by the Examiner, including the use of relevance feedback.

The new and non-cumulative technical teachings of Chesnais in combination with AP Stylebook, WST Guidelines, and Patent Owner Admissions present an additional SNQ. For example, claims 28 and 71 recite "determining the degree of similarity [...] using a relevance feedback method." Chesnais in combination with AP Stylebook, WST Guidelines, and Patent Owner Admissions discloses this limitation. More specifically, the '507 patent includes admissions that the use of relevance feedback methods to compare text was well known in the art. See *e.g.*, '507 patent at 28:55-29:3 ("The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). Notably, the '507 patent states (emphasis added) at 28:36-38, that "[t]he degree of similarity can be determined using <u>any</u> appropriate method, <u>such as, for example</u>, relevance feedback." In other words, the '507 patent itself makes clear that there is nothing particularly significant or important – in terms of imparting patentability (either novelty or nonobviousness) to a claim – about using relevance feedback to determine similarity, and it is just one of multiple techniques that could be used. These admissions can be used in combination with prior patents and printed publications to establish an SNQ. See: MPEP § 2617(III). Per MPEP § 2617, admissions, which include admitted prior art, can also be used during the examination phase of reexamination, i.e., in claim rejections. Section 2617 refers the reader to MPEP § 2258. MPEP § 2258(I)(F)(2) states, "In Seiko, [Ex parte Seiko Koko Kabushiki Kaisha, 225 USPQ 1260 (Bd. Pat. App. & Inter. 2984)] the Board relied on In re Nomiya, 509 F.2d 566, 184 USPQ 607 (CCPA 1975) holding an admission of prior art in the specification of the parent undergoing reexamination is considered prior art which may be considered as evidence of obviousness under 35 U.S.C. 103."

Because Chesnais in combination with AP Stylebook, WST Guidelines, and Patent Owner Admissions provides a new and non-cumulative technical teaching of this limitation that is found in claims 28 and 71 of the '507 patent, a reasonable Examiner would consider Chesnais in combination with AP Stylebook, WST Guidelines, and Patent Owner Admissions important in deciding the patentability of these claims. Moreover, as discussed in more detail below, Chesnais in combination with AP Stylebook, WST Guidelines, and Patent Owner Admissions teaches every limitation found in claims 28 and 71. Accordingly, Chesnais in combination with AP Stylebook, WST Guidelines, and Patent Owner Admissions raises an SNQ with respect to claims 28 and 71 of the '507 patent and the Examiner should order reexamination of these claims.

F. CHESNAIS IN COMBINATION WITH BENDER RAISES AN SNQ WITH RESPECT TO CLAIMS 20-24, 27, 28, 31, 34, 37, 38, 63-67, 70, 71, 74, 77, 80, AND 81 OF THE '507 PATENT

Chesnais was published in June 1995 and Bender was published January 12-13, 1988, thus each reference qualifies as prior art under 35 U.S.C. § 102(b). Chesnais and Bender were neither cited nor discussed in the prosecution of the '507 patent. Chesnais in combination with Bender describes several new, non-cumulative technical teachings not previously considered by the Examiner, including the comparison and subsequent display of related segments of information.

Importantly, the Examiner stated that the applied prior art "fails to disclose or suggest […] comparison of segments for the subsequent display of related segments by respective 'display means'" as recited in claims 20 and 63 (May 18, 2000 Office Action, p. 5). Chesnais teaches a system named "Fishwrap" that performs comparison of different segments of information, as well as subsequent display of a segment of information based on that comparison. "Fishwrap's content understanding module compares each story to the knowledge base." (Chesnais, p. 278). "The article is then rendered by the front end application [and] Fishwrap also checks its photo and audio databases to see if there are photos and sound recordings that match the story." (Id. at p. 277). "One blind student appreciated the . . . audio segments for illustrations." (Id. at p. 281). As shown in Fig. 13 (reproduced below), Fishwrap displays an article ("New Evidence About Bombing Suspect Emerges"), which is one segment of information, and also displays photos (thumbnails), a second segment, that it has determined "match" or are related to the news article being displayed.

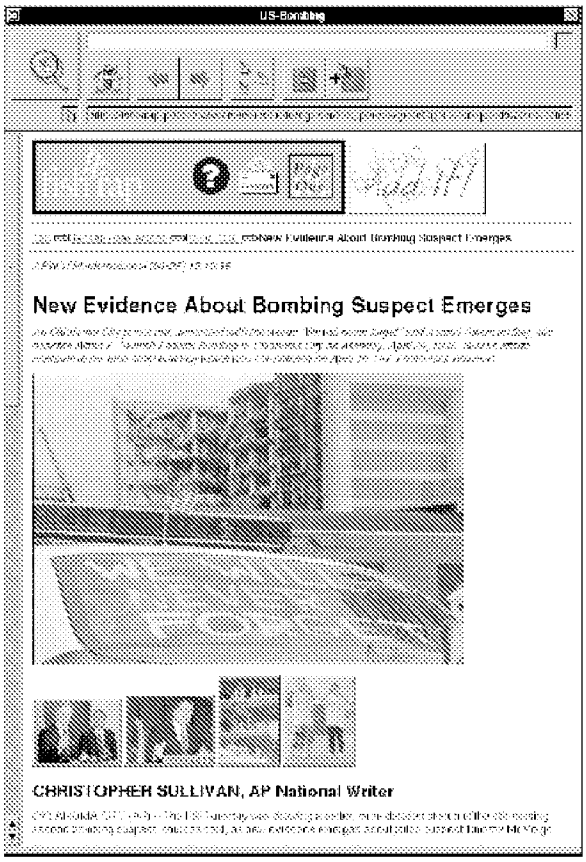


Fig. 18. An article illustrated with photographs.

If the Examiner determines that Chesnais does not expressly or inherently disclose comparing signatures of two items to determine if they are related, then this limitation is taught by the comparison technique disclosed in Bender. Bender teaches a system that compares different segments of information, and subsequently displays related segments of information based on that comparison. "[The system] matches stories during the broadcast [and] annotates the television news with articles drawn from a local copy of wire service news material selected and presented along with the video in real time". Bender at pp. 81-83 and 86. This comparison and display of related segments can be seen in Figure 2 of Bender:

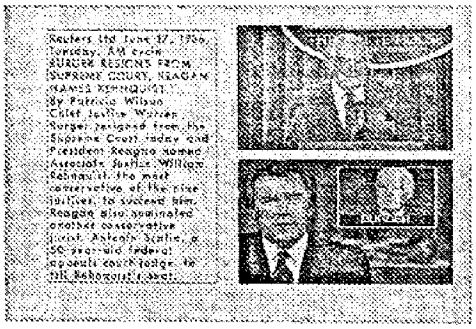


Figure 2: Network Plus. The live broadcast is in the lower right quadrant. Salient stills are in the upper right. Text from the wire services is on the left.

Bender at FIG. 2

Because Chesnais in combination with Bender provides a new and non-cumulative technical teaching of this limitation that is found in claims 20-24, 27, 28, 31, 34, 37, 38, 63-67, 70, 71, 74, 77, 80, and 81 of the '507 patent, a reasonable Examiner would consider Chesnais in combination with Bender important in deciding the patentability of these claims. Moreover, Chesnais in combination with Bender alone, or in combination with other references discussed below, teaches every limitation found in claims 20-24, 27, 28, 31, 34, 37, 38, 63-67, 70, 71, 74, 77, 80, and 81. Accordingly, Chesnais in combination with Bender raises an SNQ with respect to claims 20-24, 27, 28, 31, 34, 37, 38, 63-67, 70, 71, 74, 77, 80, and 81 of the '507 patent and the Examiner should order reexamination of these claims.

G. CHESNAIS IN COMBINATION WITH BENDER AND PATENT OWNER ADMISSIONS RAISES AN SNQ WITH RESPECT TO CLAIMS 28 AND 71 OF THE '507 PATENT

Chesnais was published in June 1995 and Bender was published January 12-13, 1988, thus each reference qualifies as prior art under 35 U.S.C. § 102(b). Chesnais and Bender were neither cited nor discussed in the prosecution of the '507 patent. Chesnais in combination with Bender and Patent Owner Admissions describes additional new and non-cumulative technical teachings not previously considered by the Examiner, including the use of relevance feedback.

The new and non-cumulative technical teachings of Chesnais in combination with Bender and Patent Owner Admissions present an additional SNQ. For example, claims 28 and 71 recite "determining the degree of similarity [...] using a relevance feedback method." Chesnais in combination with Bender and Patent Owner Admissions discloses this limitation. More specifically, the '507 patent includes admissions that the use of relevance feedback methods to

compare text was well known in the art. See *e.g.*, '507 patent at 28:55-29:3 ("The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). Notably, the '507 patent states (emphasis added) at 28:36-38, that "[t]he degree of similarity can be determined using any appropriate method, such as, for example, relevance feedback." In other words, the '507 patent itself makes clear that there is nothing particularly significant or important – in terms of imparting patentability (either novelty or nonobviousness) to a claim – about using relevance feedback to determine similarity, and it is just one of multiple techniques that could be used. These admissions can be used in combination with prior patents and printed publications to establish an SNQ. See: MPEP § 2617(III). Per MPEP § 2617, admissions, which include admitted prior art, can also be used during the examination phase of reexamination, i.e., in claim rejections. Section 2617 refers the reader to MPEP § 2258. MPEP § 2258(I)(F)(2) states, "In Seiko, [Ex parte Seiko Koko Kabushiki Kaisha, 225 USPQ 1260 (Bd. Pat. App. & Inter. 2984)] the Board relied on In re Nomiya, 509 F.2d 566, 184 USPQ 607 (CCPA 1975) holding an admission of prior art in the specification of the parent undergoing reexamination is considered prior art which may be considered as evidence of obviousness under 35 U.S.C. 103."

Because Chesnais in combination with Bender and Patent Owner Admissions provides a new and non-cumulative technical teaching of this limitation that is found in claims 28 and 71 of the '507 patent, a reasonable Examiner would consider Chesnais in combination with Bender and Patent Owner Admissions important in deciding the patentability of these claims. Moreover, as discussed in more detail below, Chesnais in combination with Bender and Patent Owner Admissions teaches every limitation found in claims 28 and 71. Accordingly, Chesnais in combination with Bender and Patent Owner Admissions raises an SNQ with respect to claims 28 and 71 of the '507 patent and the Examiner should order reexamination of these claims.

H. JOACHIMS RAISES AN SNQ WITH RESPECT TO CLAIMS 20-24, 27, 28, 31, 34, 37, 63-67, 70, 71, 74, 77, AND 80 OF THE '507 PATENT

Joachims was published May 29, 1995, thus making it prior art under 35 U.S.C. § 102(b). Joachims was neither cited nor discussed in the prosecution of the '507 patent; thus, Joachims is new art. Joachims describes several new, non-cumulative technical teachings not previously

considered by the Examiner, including the comparison and subsequent display of related segments of information.

Importantly, the Examiner stated that the applied prior art "fails to disclose or suggest […] comparison of segments for the subsequent display of related segments by respective 'display means'" as recited in claims 20 and 63 (May 18, 2000 Office Action, p. 5). Joachims teaches a system called "WebWatcher," which compares different segments of information, in the form of webpage content, in order to subsequently display related segments of information, in the form of hyperlinks. Joachim's describes "extracting information from the structure of hypertext [and] identif[ying] pages that are related to a given page." (Joachim, Abstract). If a user expresses interest in a webpage, WebWatcher compares information related to that webpage to information on other pages and then displays for the user "a list of 10 pages which WebWatcher estimates to be closely related." (Joachims, p.3, left column; see also sections 3.3 and 3.4 (describing how webpage information is compared to determine which pages have "the highest probability of being most similar")). The display of related segments of information is best seen in Figure 5.

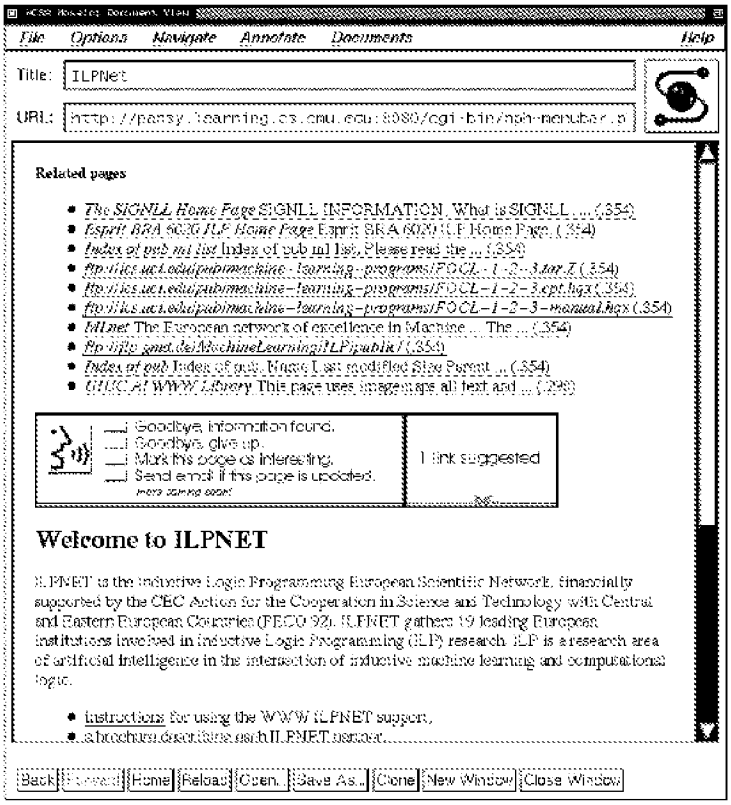


Figure 5: Related pages

Because Joachims provides a new and non-cumulative technical teaching of this limitation that is found in claims 20-24, 27, 28, 31, 34, 37, 63-67, 70, 71, 74, 77, and 80 of the '507 patent, a reasonable Examiner would consider Joachims important in deciding the patentability of these claims. Moreover, Joachims alone, or in combination with other references discussed below, teaches every limitation found in claims 20-24, 27, 28, 31, 34, 37, 63-67, 70, 71, 74, 77, and 80. Accordingly, Joachims raises an SNQ with respect to claims 20-24, 27, 28, 31, 34, 37, 63-67, 70, 71, 74, 77, and 80 of the '507 patent and the Examiner should order reexamination of these claims.

I. JOACHIMS IN COMBINATION WITH BENDER RAISES AN SNQ WITH RESPECT TO CLAIMS 27 AND 70 OF THE '507 PATENT

Joachims was published May 29, 1995 and Bender was published January 12-13, 1988; thus each reference qualifies as prior art under 35 U.S.C. § 102(b). Joachims and Bender were neither cited nor discussed in the prosecution of the '507 patent. Joachims in combination with Bender describes additional new, non-cumulative technical teachings not previously considered

by the Examiner, including the comparison based on subject matter similarity and subsequent display of segments related by subject matter.

The new and non-cumulative technical teachings of Joachims in combination with Bender present an additional SNQ. For example, claims 27 and 70 recite "wherein the step of comparing further comprises the step of determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined." Joachims in combination with Bender discloses this limitation. More specifically, Bender discloses comparing keywords lists representing subject matter content of the news wire stories (a second segment) and television broadcasts (a first segment) closed caption data and using a predefined threshold for keyword matching (e.g., four words as an example) to determine whether the segments are related. *See e.g.*, (Bender at pp. 82-83 (describing keyword matching process) ("The primary function of Network Plus is to correlate news wire stories and live broadcasts. . . . A keyword matching scheme was chosen, based upon empirical evidence that there exists a sufficient correspondence between words found in the transcript and words found in the wire service stories. If the number of words common to both the transcript and a trial story exceeded some threshold, the two were designated as related. . . . A threshold of four words worked well in this experiment. . . .") (emphasis added).

Because Joachims in combination with Bender provides a new and non-cumulative technical teaching of this limitation that is found in claims 27 and 70 of the '507 patent, a reasonable Examiner would consider Joachims in combination with Bender important in deciding the patentability of these claims. Moreover, as discussed in more detail below, Joachims in combination with Bender teaches every limitation found in claims 27 and 70. Accordingly, Joachims in combination with Bender raises an SNQ with respect to claims 27 and 70 of the '507 patent and the Examiner should order reexamination of these claims.

J. JOACHIMS IN COMBINATION BENDER AND WITH PATENT OWNER ADMISSIONS RAISES AN SNQ WITH RESPECT TO CLAIMS 28 AND 71 OF THE '507 PATENT

Joachims was published May 29, 1995 and Bender was published January 12-13, 1988; thus each reference qualifies as prior art under 35 U.S.C. § 102(b). Joachims and Bender were neither cited nor discussed in the prosecution of the '507 patent. Joachims in combination with Bender and Patent Owner Admissions describes additional new, non-cumulative technical

teachings not previously considered by the Examiner, including determining a degree of similarity using a relevance feedback method.

In addition to the SNQ discussed above, Joachims in combination with Bender and Patent Owner Admissions presents an additional SNQ. For example, claims 28 and 71 recite "determining the degree of similarity […] using a relevance feedback method." Joachims in combination with Bender and Patent Owner Admissions discloses this limitation. More specifically, the '507 patent includes admissions that the use of relevance feedback methods to compare text was well known in the art. See *e.g.*, '507 patent at 28:55-29:3 ("The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). Notably, the '507 patent states (emphasis added) at 28:36-38, that "[t]he degree of similarity can be determined using <u>any</u> appropriate method, <u>such as, for example</u>, relevance feedback." In other words, the '507 patent itself makes clear that there is nothing particularly significant or important – in terms of imparting patentability (either novelty or nonobviousness) to a claim – about using relevance feedback to determine similarity, and it is just one of multiple techniques that could be used. These admissions can be used in combination with prior patents and printed publications to establish an SNQ. See: MPEP § 2617(III). Per MPEP § 2617, admissions, which include admitted prior art, can also be used during the examination phase of reexamination, i.e., in claim rejections. Section 2617 refers the reader to MPEP § 2258. MPEP § 2258(I)(F)(2) states, "In Seiko, [Ex parte Seiko Koko Kabushiki Kaisha, 225 USPQ 1260 (Bd. Pat. App. & Inter. 2984)] the Board relied on In re Nomiya, 509 F.2d 566, 184 USPQ 607 (CCPA 1975) holding an admission of prior art in the specification of the parent undergoing reexamination is considered prior art which may be considered as evidence of obviousness under 35 U.S.C. 103."

Because Joachims in combination with Bender and Patent Owner admissions provides a new and non-cumulative technical teaching of this limitation that is found in claims 28 and 71 of the '507 patent, a reasonable Examiner would consider Joachims in combination with Bender and Patent Owner admissions important in deciding the patentability of these claims. Moreover, as discussed in more detail below, Joachims in combination with Bender and Patent Owner admissions teaches every limitation found in claims 28 and 71. Accordingly, Joachims in

combination with Bender and Patent Owner admissions raises an SNQ with respect to claims 28 and 71 of the '507 patent and the Examiner should order reexamination of these claims.

K. MASAND RAISES AN SNQ WITH RESPECT TO CLAIMS 39, 40, 43, 82, 83, AND 86 OF THE '507 PATENT

Masand was published June 1992, thus making it prior art under 35 U.S.C. § 102(b). Masand was neither cited nor discussed in the prosecution of the '507 patent; thus, Masand is new art. Masand teaches all of the limitations of claims 39, 40, 43, 82, 83, and 86. Importantly, the Examiner stated that "the [applied] prior art, alone or in combination, does [not] teach or fairly suggest the categorizing according to subject matter an uncategorized body of information in which a degree of similarity is determined between subject matter content of each previously categorized segment and an uncategorized segment" as recited by in claims 39, 40, 43, 82, 83, and 86. (December 19, 2000 Office Action, p. 5).

Masand teaches this limitation. In particular, Masand teaches acquiring an uncategorized segment of information (stories originating from diverse sources such as newspapers, magazines, newswires, and press releases, p. 59), and determining a degree of similarity between the uncategorized segment and previously categorized segments by formulating a relevance feedback query to a database of previously categorized segments of information (p. 61, section 7). The results of the relevance feedback query are weighted by summing similarity scores (Id.). A list of relevant related information to the new, uncategorized information is provided as shown in Fig. 4.

Because Masand provides a new and non-cumulative technical teaching of this limitation that is found in claims 39, 40, 43, 82, 83, and 86 of the '507 patent, a reasonable Examiner would consider Masand important in deciding the patentability of these claims. Moreover, Masand alone, or in combination with other references discussed below, teaches every limitation found in claims 39, 40, 43, 82, 83, and 86. Accordingly, Masand raises an SNQ with respect to claims 39, 40, 43, 82, 83, and 86 of the '507 patent and the Examiner should order reexamination of these claims.

L. IWAYAMA RAISES AN SNQ WITH RESPECT TO CLAIMS 39, 40, 43, 82, 83, AND 86 OF THE '507 PATENT

Iwayama was published July 9-13, 1995, thus making it prior art under 35 U.S.C. § 102(b). Iwayama was neither cited nor discussed in the prosecution of the '507 patent; thus, Iwayama is new art. Iwayama teaches all of the limitations of claims 39, 43, 82, and 86.

Claims 39, 40, 43, 82, 83, and 86 of the '507 patent all require "determining the degree of similarity between the subject matter content of the uncategorized segment and the subject matter content of each of the previously categorized segments." During original prosecution, the Examiner could not find this limitation in the prior art, stating that "the [applied] prior art, alone or in combination, does [not] teach or fairly suggest the categorizing according to subject matter an uncategorized body of information in which a degree of similarity is determined between subject matter content of each previously categorized segment and an uncategorized segment." (December 19, 2000 Office Action, p. 5).

Iwayama teaches this limitation by disclosing a technique for "search[ing] the K-nearest training documents [previously categorized documents] to the test document [the uncategorized document] and us[ing] the categories assigned to those training documents" to categorize the "test document." Iwayama at p. 273. Specifically, Iwayama discloses a categorization method comprising four steps: "1. Construct clusters C . . . 2. Calculate the posterior probability $P(c_i|d_{test})$ [i.e., degree of similarity] for a test document d_{test} and every cluster c_i . . . 3. Sort the posterior probabilities and extract the *K*-nearest training documents . . . 4. Assign to the test document categories based on the extracted *K*-nearest documents." Iwayama at p. 273. In one particular embodiment disclosed by Iwayama, the method may be used to perform a full search, such as "MBR (Memory Based Reasoning) . . . for calculating a measure of similarity between a test document and every training document." Iwayama at p. 273. [6] In this example, "each training document belongs to a singleton cluster whose only member is the document itself."

[6] Iwayama discloses multiple embodiments. A second embodiment, not addressed herein uses clusters of documents having similar categories and works in much the same way as the embodiment discussed herein because, as noted by Iwayama, clusters could be single documents and the methods, except for the clustering step, would be the same. In such case, "each training document belongs to a singleton cluster whose only member is the document itself. Iwayama at pp. 273-74. The first method and system, which is addressed herein is referred to as the "full search" in Iwayama.

Iwayama at p. 274. Thus, Iwayama categorizes the uncategorized documents (i.e., test documents) according to subject matter and involves "calculating a measure of similarity between a test document and every training document." Iwayama at p. 273.

Because Iwayama provides a new and non-cumulative technical teaching of this limitation that is found in claims 39, 40, 43, 82, 83, and 86 of the '507 patent, a reasonable Examiner would consider Iwayama important in deciding the patentability of these claims. Moreover, Iwayama alone, or in combination with other references discussed below, teaches every limitation found in claims 39, 40, 43, 82, 83, and 86. Accordingly, Iwayama raises an SNQ with respect to claims 39, 40, 43, 82, 83, and 86 of the '507 patent and the Examiner should order reexamination of these claims.

M. IWAYAMA IN COMBINATION WITH MASAND RAISES AN SNQ WITH RESPECT TO CLAIMS 40, 43, 83, AND 86 OF THE '507 PATENT

Iwayama was published was published July 9-13, 1995, thus making it prior art under 35 U.S.C. § 102(b); Masand was published June 1992, thus making it prior art under 35 U.S.C. § 102(b). Neither Iwayama nor Masand was cited or discussed in the prosecution of the '507 patent; thus, Iwayama in combination with Masand is new art.

In particular, claims 40 and 83 recite "determining the degree of similarity […] using a relevance feedback method." Iwayama in combination with Patent Owner admission discloses this limitation. More specifically, the '507 patent admits that the use of relevance feedback methods to compare text was well known in the art. See e.g., '507 patent at 28:55-29:3 ("The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). Notably, the '507 patent states (emphasis added) at 28:36-38, that "[t]he degree of similarity can be determined using <u>any appropriate method</u>, such as, for example, relevance feedback." In other words, the '507 patent itself makes clear that there is nothing particularly significant or important – in terms of imparting patentability (either novelty or nonobviousness) to a claim – about using relevance feedback to determine similarity, and it is just one of multiple techniques that could be used. Masand teaches acquiring an uncategorized segment of information (stories originating from diverse sources such as newspapers, magazines, newswires, and press releases, p. 59), and determining a degree of similarity between the uncategorized segment and previously categorized segments by formulating <u>a relevance</u>

feedback query to a database of previously categorized segments of information (p. 61, section 7)(emphasis added). The results of the relevance feedback query are weighted by summing similarity scores (Id.). A list of relevant related information to the new, uncategorized information is provided as shown in Fig. 4.

Claims 43 and 86 recite "wherein the uncategorized segment has been acquired from a first data source and the previously categorized segment or segments have been acquired from a second data source that is different from the first data source." As explained above, this limitation is disclosed in Iwayama. To the extent, however, that the Examiner considers this limitation to be missing from Iwayama, Iwayama, in view of Masand, discloses the limitation. For example, Masand discloses applying the "Memory Based Reasoning" method to documents acquired from different sources. *See* Masand at p. 51. Specifically, Masand discloses categorizing a news story acquired from a first source ("stories originating from diverse sources such as newspapers, magazines, newswires, and press releases") (Masand at p. 59) by comparing the document to a set of previously categorized documents acquired from a second source that is different from the first ("[u]sing an already coded training database of about 50,000 stories from the Dow Jones Press Release News Wire . . . .") (Masand at Abstract.). Thus, Masand discloses applying the "Memory Based Reasoning" method to documents acquired from different sources.

Because Iwayama in combination with Masand provides a new and non-cumulative technical teaching of the limitations found in claims 40, 43, 83, and 86 of the '507 patent, a reasonable Examiner would consider Iwayama in combination with Masand important in deciding the patentability of these claims. Moreover, Iwayama in combination with Masand teaches every limitation found in claims 40, 43, 83, and 86. Accordingly, Iwayama in combination with Masand raises an SNQ with respect to claims 40, 43, 83, and 86 of the '507 patent and the Examiner should order reexamination of these claims.

N. IWAYAMA IN COMBINATION WITH PATENT OWNER ADMISSIONS RAISES AN SNQ WITH RESPECT TO CLAIMS 40 AND 83 OF THE '507 PATENT

Iwayama was published was published July 9-13, 1995, thus making it prior art under 35 U.S.C. § 102(b). Iwayama was neither cited nor discussed in the prosecution of the '507 patent; thus, Iwayama in combination with Patent Owner Admissions is new art. In addition to the SNQ discussed above, Iwayama in combination with Patent Owner Admissions presents an SNQ for at least claims 40 and 83. In particular, claims 40 and 83 recite "determining the degree of

similarity […] using a relevance feedback method." Iwayama in combination with Patent Owner Admissions discloses this limitation. More specifically, the '507 patent admits that the use of relevance feedback methods to compare text was well known in the art. See *e.g.*, '507 patent at 28:55-29:3 ("The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). Notably, the '507 patent states (emphasis added) at 28:36-38, that "[t]he degree of similarity can be determined using any appropriate method, such as, for example, relevance feedback." In other words, the '507 patent itself makes clear that there is nothing particularly significant or important – in terms of imparting patentability (either novelty or nonobviousness) to a claim – about using relevance feedback to determine similarity, and it is just one of multiple known techniques that could be used. These admissions can be used in combination with prior patents and printed publications to establish an SNQ. See: MPEP § 2617(III). Per MPEP § 2617, admissions, which include admitted prior art, can also be used during the examination phase of reexamination, i.e., in claim rejections. Section 2617 refers the reader to MPEP § 2258. MPEP § 2258(I)(F)(2) states, "In Seiko, [Ex parte Seiko Koko Kabushiki Kaisha, 225 USPQ 1260 (Bd. Pat. App. & Inter. 2984)] the Board relied on In re Nomiya, 509 F.2d 566, 184 USPQ 607 (CCPA 1975) holding an admission of prior art in the specification of the parent undergoing reexamination is considered prior art which may be considered as evidence of obviousness under 35 U.S.C. 103."

Because Iwayama in combination with Patent Owner admissions provides a new and non-cumulative technical teaching of this limitation that is found in claims 40 and 83 of the '507 patent, a reasonable Examiner would consider Iwayama in combination with Patent Owner admissions important in deciding the patentability of these claims. Moreover, Iwayama in combination with Patent Owner admissions alone, or in combination with other references discussed below, teaches every limitation found in claims 40 and 83. Accordingly, Iwayama in combination with Patent Owner admissions raises an SNQ with respect to claims 40 and 83 of the '507 patent and the Examiner should order reexamination of these claims.

O. YUASA RAISES AN SNQ WITH RESPECT TO CLAIMS 39, 40, 43, 82, 83, AND 86 OF THE '507 PATENT

Yuasa was published on May 2, 1995, thus making it prior art under 35 U.S.C. § 102(b). Yuasa was neither cited nor discussed in the prosecution of the '507 patent; thus, Yuasa is new

art. Yuasa teaches all of the limitations of claims 39, 40, 43, 82, 83, and 86. Importantly, the Examiner stated that "the [applied] prior art, alone or in combination, does [not] teach or fairly suggest the categorizing according to subject matter an uncategorized body of information in which a degree of similarity is determined between subject matter content of each previously categorized segment and an uncategorized segment" as recited by in claims 39, 40, 43, 82, 83, and 86. December 19, 2000 Office Action, p. 5.

Yuasa teaches this limitation (*e.g.*, "it is seen that the characteristic vector for example sentence C is closest to the representative vector for classification group 3, so example sentence C is classified in classification group 3", "a classifier for classifying documents using degrees of similarity between characteristic vectors of documents" and "it will be possible to classify a document read in from the document memory 301 in a classification group corresponding to the representative vector that most resembles the characteristic vector(s) for that document"). Yuasa at ¶¶ [0005], [0009], [0011], [0013], [0018], [0030], [0032], [0046], [0048], [0055], and [0058]-[0060].

Because Yuasa provides a new and non-cumulative technical teaching of this limitation that is found in claims 39, 40, 43, 82, 83, and 86 of the '507 patent, a reasonable Examiner would consider Yuasa important in deciding the patentability of these claims. Moreover, Yuasa alone, or in combination with other references discussed below, teaches every limitation found in claims 39, 40, 43, 82, 83, and 86. Accordingly, Yuasa raises an SNQ with respect to claims 39, 40, 43, 82, 83, and 86 of the '507 patent and the Examiner should order reexamination of these claims.

P. YUASA IN COMBINATION WITH PATENT OWNER ADMISSIONS RAISES AN SNQ WITH RESPECT TO CLAIMS 40 AND 83 OF THE '507 PATENT

Yuasa was published on May 2, 1995, thus making it prior art under 35 U.S.C. § 102(b). Yuasa was neither cited nor discussed in the prosecution of the '507 patent; thus, Yuasa in combination with Patent Owner Admissions is new art. In addition to the SNQ discussed above, Yuasa in combination with Patent Owner Admissions presents an SNQ for at least claims 40 and 83. In particular, claims 40 and 83 recite "determining the degree of similarity [...] using a relevance feedback method." Yuasa in combination with Patent Owner Admissions discloses this limitation. More specifically, the '507 patent admits that the use of relevance feedback methods to compare text was well known in the art. See *e.g.*, '507 patent at 28:55-29:3 ("The

use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). Notably, the '507 patent states (emphasis added) at 28:36-38, that "[t]he degree of similarity can be determined using any appropriate method, such as, for example, relevance feedback." In other words, the '507 patent itself makes clear that there is nothing particularly significant or important – in terms of imparting patentability (either novelty or nonobviousness) to a claim – about using relevance feedback to determine similarity, and it is just one of multiple techniques that could be used. These admissions can be used in combination with prior patents and printed publications to establish an SNQ. See: MPEP § 2617(III). Per MPEP § 2617, admissions, which include admitted prior art, can also be used during the examination phase of reexamination, i.e., in claim rejections. Section 2617 refers the reader to MPEP § 2258. MPEP § 2258(I)(F)(2) states, "In Seiko, [Ex parte Seiko Koko Kabushiki Kaisha, 225 USPQ 1260 (Bd. Pat. App. & Inter. 2984)] the Board relied on In re Nomiya, 509 F.2d 566, 184 USPQ 607 (CCPA 1975) holding an admission of prior art in the specification of the parent undergoing reexamination is considered prior art which may be considered as evidence of obviousness under 35 U.S.C. 103."

Because Yuasa in combination with Patent Owner admissions provides a new and non-cumulative technical teaching of this limitation that is found in claims 40 and 83 of the '507 patent, a reasonable Examiner would consider Yuasa in combination with Patent Owner admissions important in deciding the patentability of these claims. Moreover, Yuasa in combination with Patent Owner admissions alone, or in combination with other references discussed below, teaches every limitation found in claims 40 and 83. Accordingly, Yuasa in combination with Patent Owner admissions raises an SNQ with respect to claims 40 and 83 of the '507 patent and the Examiner should order reexamination of these claims.

VI. DETAILED EXPLANATION OF THE PERTINENCY AND MANNER OF APPLYING THE PRIOR ART REFERENCES TO EVERY CLAIM FOR WHICH REEXAMINATION IS REQUESTED AS REQUIRED BY 37 C.F.R. § 1.510 (b)

As explained in more detail in Section III.D above at page 15, by applying the claim language of the '507 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 '507 patent is entitled to "patentable weight."

A. BENDER ANTICIPATES CLAIMS 20-22, 24, 27, 31, 34, 37, 38, 63-65, 67, 70, 74, 77, 80, AND 81 OF THE '507 PATENT

Please see the attached Exhibit CC-A presenting claim charts comparing Bender with claims 20-22, 24, 27, 31, 34, 37, 38, 63-65, 67, 70, 74, 77, 80, and 81 of the '507 patent.

CLAIM 20

> **A method for acquiring and reviewing a body of information, wherein the body of information includes a plurality of segments, each segment representing a defined set of information in the body of information, the method comprising the steps of:**

Bender discloses a method for acquiring and reviewing a body of information, wherein the body of information includes a plurality of segments, each segment representing a defined set of information in the body of information (*e.g.*, "a news retrieval system where the news editor has been replaced by the personal computer. A variety of both local and remote databases which operate passively as well as interactively are accessed by 'reporters.' These 'reporters' are actually software interfaces, which are programmed to gather news"). Bender at pp. 81-82. Bender also discloses that news items in the closed captioned data are delimited with certain characters, such as ">>>." Bender at p. 82.

> **acquiring data representing the body of information;**

Bender discloses acquiring data representing the body of information (*e.g.*, "The embodiment of these media experiments is a news retrieval system where the news editor has been replaced by the personal computer. A variety of both local and remote databases which operate passively as well as interactively are accessed by 'reporters.' These 'reporters' are actually software interfaces, which are programmed to gather news. Ideally, they are 'broadcatching'; that is to say, watching all broadcast television channels, listening to all radio transmissions, and reading all newspapers, magazines, and journals," "News articles are collected based on a summary of topical events compiled daily by the wire services, in anticipation of the items which will be reported during the evening news telecast.") Bender at pp.

81-82. Thus, Bender discloses that the system acquires, among other information, broadcast news and the closed caption data associated with the broadcast, in addition to news wire stories. These are exactly the same types of data that the '507 patent describes in its preferred embodiment. '507 patent 9:61-10:16, 20:15-21, 28:5-23.

storing the acquired data;

Bender discloses storing the acquired data, such as news wire stores and broadcast data (*e.g.*, "News articles are collected based on a summary of topical events compiled daily by the wire services, in anticipation of the items which will be reported during the evening news telecast.") Bender at pp. 81-82 and 85. Further, Bender explains that the Network Plus system uses software interfaces, called "reporters" that access "both local and remote databases" to perform their news editing and presentation functions (i.e., "data and processing are packaged locally.") Bender at pp. 81 and 84. Bender further explains, with respect to data from the broadcast, Network Plus also stores acquired data from the broadcast (*e.g.*, "The presentation is driven by a processor that scans the closed caption data transmitted along with the broadcast. . . . Selected frames drawn from the telecast and stored in local memory are also presented as well"). Bender at p. 81 and Fig. 2 (p. 86). Further, Bender discloses that a printed version of annotated broadcast can be provided after the broadcast, which necessarily requires storing the data in order to generate a printed version. Bender at pp. 81 & 84-85 (describing the post-processing used to generate still images). In fact, the Patent Owner's infringement contentions in the Underlying Litigation indicate that if the data is acquired and displayed it is "apparent" that the data is stored. (OTH-W Interval Ex. E-2 at Slide 8). Using the Patent Owner's own contention, in order for Bender to generate the images shown, for example in Bender Figs. 1 and 2, the computer displaying that information must store the acquired data (*e.g.*, in memory accessible by the processor and program controlling the display in order to generate the display). Moreover, one skilled in the art would also understand that Bender's Network Plus system necessarily discloses storing the acquired data because Bender's disclosure of comparing data from the news wire stories and the broadcast via keyword searching would require storing the data so that the keyword searching, comparison and display described in Bender could be performed. Bender at p. 85-86. In short, Bender discloses several different ways in which acuired data is stored.

generating a display of a first segment of the body of information from data that is part of the stored data;

Bender discloses generating a display of a first segment of the body of information from data that is part of the stored data (*e.g.*, "The display is divided into three sections (figure 2). In the lower right quadrant, the news telecast is shown live, in its entirety. . . . A third section, the upper right quadrant is reserved for displaying video stills extracted from the broadcast.") Bender at FIGs. 1 and 2 and pp. 81-82. Thus, the display of the broadcast news (lower right quadrant of Fig. 2) is a display of a first segment from data that is part of the stored data. Alternatively, the video stills (upper right quadrant) may also be considered a first segment. Again, this is exactly the same type of display of broadcast news that is described not just in the claims, but in the preferred embodiment of the '507 patent at 10:14-16 ("Additionally when the use is observing a particular news story in an audiovisual news program, the invention can identify and display a related text news story or stories.")

comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related; and

Bender discloses comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related because, for example, Bender compares closed caption data representing the news broadcast (one segment) to news wire text stories (a different segment) via keyword matching to determine, whether according to predetermined criteria (*e.g.*, a threshold number of matched keywords), the segments are related. See *e.g.*, Bender at pp. 82-83 (describing keyword matching process)("Network Plus is comprised of two procedural components. One gathers information prior to the broadcast. The other matches stories during the broadcast."(emphasis added); "The primary function of Network Plus is to correlate news wire stories and live broadcasts. . . . A keyword matching scheme was chosen, based upon empirical evidence that there exists a sufficient correspondence between words found in the transcript and words found in the wire service stories. If the number of words common to both the transcript and a trial story exceeded some threshold, the two were designated as related. . . . A threshold of four words worked well in this experiment. . .") (emphasis added). Bender further provides a specific example illustrating the process for comparing a news wire story about the nuclear accident at Chernobyl to a television broadcast on "ABC Nightly News" to determine they were related. *Id.* Thus, Bender discloses at least

comparing the closed caption data for the news broadcast with the news wire text via keyword matching to determine whether according to a predetermined threshhold for keyword matching (*e.g.*, four common words), the broadcast and the news wire story are related. Once again, Bender discloses the exact same type of comparison between closed caption data and news wire text that is described not just in the claim, but in the preferred embodiment of the '507 patent wherein closed caption data for the news broadcast is compared to news wire text to determine if they are related by "any appropriate method." '507 patent at 28:5-23, 36-38.

generating a display of a portion of, or a representation of, a second segment of the body of information from data that is part of the stored data, wherein the display of the portion or representation of the second segment is generated in response to the display of a first segment to which the second segment is related.

Bender discloses generating a display of a portion of, or a representation of, a second segment of the body of information from data that is part of the stored data, wherein the display of the portion or representation of the second segment is generated in response to the display of a first segment to which the second segment is related because, for example, Bender discloses displaying the news wire text that has been determined to be related to the television news broadcast, in response to and along with the television news. See *e.g.*, Bender Figs. 1 (p.85) ("Locally Packaged Television. On the top is the original broadcast . . . On the right, the map is replaced with text from the news wire services") and Fig. 2 (p. 86) (The live broadcast is in the lower right quadrant. . . . Text from the wire services is on the left); Bender at p. 81 ("Network Plus annotates the television news with articles drawn from a local copy of wire service new material selected and presented along with the video in real time"); Bender at pp. 81-82 ("The display is divided into three sections (figure 2). In the lower right quadrant, the news telecast is shown live, in its entirety. The left half of the screen is used to display related news wire stories..")(emphasis added). Once again, Bender discloses the same type of display described not just in the claim, but in the preferred embodiment of the '507 patent – the second segment (the news wire text) is displayed in response to and along with the news broadcast and stills. *Compare* '507 patent FIG. 2B with Bender Figs. 1 and 2; see also '507 patent at 14:64-15:3, 18:52-67.

CLAIM 21

A method as in claim 20, further comprising the step of causing the display of the portion or representation of the second segment to occur substantially coextensive in time with the display of the related first segment.

Bender discloses the step of causing the display of the portion or representation of the second segment to occur substantially coextensive in time with the display of the related first segment because, for example as shown in Bender Figs. 1 and 2, the news wire text is displayed at the same time as both the broadcast news and stills. *See e.g.*, Bender at Fig. 2 (p. 86) and pp. 81-82 ("The display is divided into three sections (figure 2). In the lower right quadrant, the news telecast is shown live, in its entirety. The left half of the screen is used to display related news wire stories. A third section, the upper right quadrant, is reserved for displaying video stills extracted from the broadcast.") (emphasis added). Again, the Bender disclosure matches not just the claim, but the preferred embodiment described in the '507 patent. *Compare* '507 patent FIG. 2B with Bender Figs. 1 and 2; see also '507 patent at 14:64-15:3, 18:52-67.

CLAIM 22

A method as in claim 20, wherein: the step of acquiring data representing the body of information further comprises the step of acquiring audiovisual data representing at least a portion of the body of information, wherein the first and second segments are represented by audiovisual data; and

Bender discloses the step of acquiring data representing the body of information further comprises the step of acquiring audiovisual data representing at least a portion of the body of information, wherein the first and second segments are represented by audiovisual data (*e.g.*, "The display is divided into three sections (figure 2). In the lower right quadrant, the news telecast is shown live, in its entirety. The left half of the screen is used to display related news wire stories. A third section, the upper right quadrant, is reserved for displaying video stills extracted from the broadcast. As the telecast is shown live, stories determined to be related to the telecast are displayed.") Bender at FIG. 2, pp. 81-82 and 86. Further, Bender discloses that a map may also be displayed along with the broadcast. Bender at FIG. 1, p. 85 (showing that a "map has been inserted locally" which is related as shown in the figure because it corresponds to the same general region as the original map, but is annotated). The displayed telecast (a first segment) is audiovisual data and either the image of the news wire story, or graphic such as a map (either of which may be a second segment) are audiovisual data. '507 patent at 9:50-56 ("'audiovisual data' refers to data that includes audio and/or video data, and may include text

data"). Moreover, one skilled in the art would understand that the news wire services have long provided photographs by wire service, since at least 1935 when Associated Press introduced its Wirephoto Network (*see e.g.,* http://www.ap.org/pages/history/photos.htm)(describing the development of AP's news wire photo service); thus the news wire data acquired by Bender's Network plus could include photographs. Once again, the display of a television news broadcast and still images meet what is described not just in the claim, but in the preferred embodiment of the '507 patent. '507 patent at 18:52-64.

the step of generating a display of a first segment of the body of information further comprises the step of generating an audiovisual display of the first segment.

Bender discloses the step of generating a display of a first segment of the body of information further comprises the step of generating an audiovisual display of the first segment because, for example, the television news broadcast (a first segment) is audiovisual data. *See e.g.*, Bender at Fig.1 (p. 85) and Fig. 2 (p. 86); pp. 81-82. "The display is divided into three sections (figure 2). In the lower right quadrant, the news telecast is shown live, in its entirety. The left half of the screen is used to display related news wire stories. A third section, the upper right quadrant, is reserved for displaying video stills extracted from the broadcast.") (emphasis added).

CLAIM 24

A method as in claim 20, wherein: the step of acquiring data representing the body of information further comprises the step of acquiring audiovisual data representing at least a portion of the body of information;

Bender discloses the step of acquiring audiovisual data representing at least a portion of the body of information because, for example, the television news broadcast, among other items, is audiovisual data. *See e.g.*, Bender at FIG. 2 (p. 86), pp. 81-82 ("The display is divided into three sections (figure 2). In the lower right quadrant, the news telecast is shown live, in its entirety. The left half of the screen is used to display related news wire stories. A third section, the upper right quadrant, is reserved for displaying video stills extracted from the broadcast. As the telecast is shown live, stories determined to be related to the telecast are displayed.")(emphasis added). . The body of information includes a television broadcast and video stills, which are both audiovisual information under the '507 patent's definition of that

term. '507 patent at 9:50-56 ("'audiovisual data' refers to data that includes audio and/or video data, and may include text data").

the step of generating a display of a first segment of the body of information further comprises the step of generating an audiovisual display of the first segment; and

Bender discloses the step of generating a display of a first segment of the body of information further comprises the step of generating an audiovisual display of the first segment because it displays the television news broadcast (a first segment), among other items, which is audiovisual data. *See e.g.*, Bender at FIG. 2 (p.86), pp. 81-82 ("The display is divided into three sections (figure 2). In the lower right quadrant, the news telecast is shown live, in its entirety. The left half of the screen is used to display related news wire stories. A third section, the upper right quadrant, is reserved for displaying video stills extracted from the broadcast.")(emphasis added). .

the step of generating a display of a portion of, or a representation of, a second segment of the body of information further comprises the step of generating a text display of the portion or representation of the second segment.

Bender discloses the step of generating a display of a portion of, or a representation of, a second segment of the body of information further comprises the step of generating a text display of the portion or representation of the second segment because, for example, the news wire stories (a second segment) are text. *See e.g.*, Bender at FIG. 2 (p. 86), pp. 81-83 ("The left half of the screen is used to display related news wire stories. . . . As the telecast is shown live, stories determined to be related to the telecast are displayed.") The news wire stories in Bender (i.e., the portion or representation of a second segment) are exactly the same type of "text" display described not only in this claim, but in the preferred embodiment of the '507 patent. '507 patent at 18:64-67.

CLAIM 27

A method as in claim 20, further comprising the step of identifying the subject matter content of a segment of the body of information, wherein the step of comparing further comprises the step of determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree

of similarity with respect to which the relatedness of the compared segments is determined.

Bender discloses the step of identifying the subject matter content of a segment of the body of information, wherein the step of comparing further comprises the step of determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined because for example, Bender discloses comparing keywords lists representing subject matter content of the news wire stories (a second segment) and television broadcasts (a first segment) closed caption data and using a predefined threshold for keyword matching (*e.g.*, four words as an example) to determine whether the segments are related. *See e.g.*, (Bender at pp. 82-83 (describing keyword matching process)("The primary function of Network Plus is to correlate news wire stories and live broadcasts. . . . A keyword matching scheme was chosen, based upon empirical evidence that there exists a sufficient correspondence between words found in the transcript and words found in the wire service stories. If the number of words common to both the transcript and a trial story exceeded some threshold, the two were designated as related. . . . A threshold of four words worked well in this experiment. . . .")(emphasis added)..

CLAIM 31

A method as in claim 20, wherein the step of acquiring data further comprises the step of acquiring computer-readable data files over a computer network from an information providing site that is part of that network.

Bender discloses the step of acquiring computer-readable data files over a computer network from an information providing site that is part of that network (*e.g.*, "A variety of both local and remote databases which operate passively as well as interactively are accessed by 'reporters.' These 'reporters' are actually software interfaces, which are programmed to gather news. Ideally, they are 'broadcatching'; that is to say, watching all broadcast television channels, listening to all radio transmissions, and reading all newspapers, magazines, and journals.") Bender at pp. 81-82. Bender also explains that the "news gathering agents contact news wire sources." Bender at p. 82. Thus, once again as described in the preferred embodiment of the '507 patent, Bender discloses acquiring the very same type of data, including computer-readable data files for the news wire stories and/or the television broadcast.

CLAIM 34

A method as in claim 20, further comprising the step of identifying an instruction from a user to begin displaying at least some of the body of information, wherein the display of a first segment is begun in response to the user instruction.

Bender discloses the step of identifying an instruction from a user to begin displaying at least some of the body of information, wherein the display of a first segment is begun in response to the user instruction. *See e.g.*, Bender at p. 81 ("In response to instructions from both the broadcaster and the reader, this agent selects from incoming data and presents it in a manner suggestive of traditional media.") (emphasis added)..

CLAIM 37

A method as in claim 20, wherein at least some of the acquired data is digital data, the step of acquiring data further comprising the step of acquiring digital data.

Bender discloses that at least some of the acquired data is digital data, the step of acquiring data further comprising the step of acquiring digital data because the closed caption data is digital and the news wires stories are also digital. *See e.g.*, Bender at p. 81 ("broadcast closed caption digital transcription")(emphasis added); 82 ("Prior to the broadcast, news gathering agents contact news wire sources (Dow Jones News Service, X*Press and NEXIS).") These news services send information digitally. See OTH-B (*e.g.*, "The product, called Newshedge [...] gives users access to "live" news from [...] Dow Jones News Service. [...] Newshedge funnels downloaded data into a stream").

CLAIM 38

A method as in claim 20, wherein at least some of the acquired data is analog data, the step of acquiring data further comprising the step of acquiring analog data.

Bender discloses that at least some of the acquired data is analog data, the step of acquiring data further comprising the step of acquiring analog data (*e.g.*, "Network Plus is designed to work with closed caption news broadcasts (currently ABC, and NBC caption there national news.") Bender at pp. 81-83. Network Plus acquired live NTSC video news broadcasts, which in 1988 inherently comprised analog data. Bender at p. 84. Moreover, Bender also

discloses acquiring "radio transmissions," which in 1988 would also have comprised analog data. Bender at p. 81.

CLAIM 63

A computer readable medium encoded with one or more computer programs for enabling acquisition and review of a body of information, wherein the body of information includes a plurality of segments, each segment representing a defined set of information in the body of information, comprising:

Bender discloses a computer readable medium encoded with one or more computer programs for enabling acquisition and review of a body of information, wherein the body of information includes a plurality of segments, each segment representing a defined set of information in the body of information (*e.g.*, "a news retrieval system where the news editor has been replaced by the personal computer. A variety of both local and remote databases which operate passively as well as interactively are accessed by 'reporters.' These 'reporters' are actually software interfaces, which are programmed to gather news"). Bender at pp. 81-82. Bender also discloses that news items in the closed captioned data are delimited with certain characters, such as ">>>." Bender at p. 82.

instructions for acquiring data representing the body of information;

Bender discloses instructions for acquiring data representing the body of information (*e.g.*, "The embodiment of these media experiments is a news retrieval system where the news editor has been replaced by the personal computer. A variety of both local and remote databases which operate passively as well as interactively are accessed by 'reporters.' These 'reporters' are actually software interfaces, which are programmed to gather news. Ideally, they are 'broadcatching'; that is to say, watching all broadcast television channels, listening to all radio transmissions, and reading all newspapers, magazines, and journals";"News articles are collected based on a summary of topical events compiled daily by the wire services, in anticipation of the items which will be reported during the evening news telecast.") Bender at pp. 81-82. Thus, Bender discloses software for acquiring, among other information, broadcast news and the closed caption data associated with the broadcast, in addition to news wire stories. These are exactly the same types of data that the '507 patent describes in its preferred embodiment. '507 patent 9:61-10:16, 20:15-21, 28:5-23.

instructions for storing the acquired data;

Bender discloses instructions for storing the acquired data, such as news wire stores and broadcast data (*e.g.*, "News articles are collected based on a summary of topical events compiled daily by the wire services, in anticipation of the items which will be reported during the evening news telecast.") Bender at pp. 81-82 and 85. Further, Bender explains that the Network Plus system uses software interfaces, called "reporters" that access "both local and remote databases" to perform their news editing and presentation functions (i.e., "data and processing are packaged locally.") Bender at pp. 81 and 84. Bender further explains, with respect to data from the broadcast, Network Plus also stores acquired data from the broadcast (*e.g.*, "The presentation is driven by a processor that scans the closed caption data transmitted along with the broadcast. . . . Selected frames drawn from the telecast and stored in local memory are also presented as well"). Bender at p. 81 and Fig. 2 (p. 86). Further, Bender discloses that a printed version of annotated broadcast can be provided after the broadcast, which necessarily requires storing the data in order to generate a printed version. Bender at pp. 81 & 84-85 (describing the post-processing used to generate still images). In fact, the Patent Owner's infringement contentions in the Underlying Litigation indicate that if the data is acquired and displayed it is "apparent" that the data is stored. (OTH-W Interval Ex. E-2 at Slide 8) Using the Patent Owner's own contention, in order for Bender to generate the images shown, for example in Bender Figs. 1 and 2, the computer displaying that information must store the acquired data (*e.g.*, in memory accessible by the processor and program controlling the display in order to generate the display). Moreover, one skilled in the art would also understand that Bender's Network Plus system necessarily discloses storing the acquired data because Bender's disclosure of comparing data from the news wire stories and the broadcast via keyword searching would require storing the data so that the keyword searching, comparison and display described in Bender could be performed. Bender at p. 85-86. In short, Bender discloses several different ways in which acuired data is stored.

instructions for generating a display of a first segment of the body of information from data that is part of the stored data;

Bender discloses instructions for generating a display of a first segment of the body of information from data that is part of the stored data (*e.g.*, "The display is divided into three sections (figure 2). In the lower right quadrant, the news telecast is shown live, in its entirety. . . . A third section, the upper right quadrant is reserved for displaying video stills extracted from

the broadcast.") Bender at FIGs. 1 and 2 and pp. 81-82. Thus, the display of the broadcast news (lower right quadrant of Fig. 2) is a display of a first segment from data that is part of the stored data. Alternatively, the video stills (upper right quadrant) may also be considered a first segment. Again, this is exactly the same type of display of broadcast news that is described not just in the claims, but in the preferred embodiment of the '507 patent at 10:14-16 ("Additionally when the use is observing a particular news story in an audiovisual news program, the invention can identify and display a related text news story or stories.")

instructions for comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related; and

Bender discloses instructions for comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related because, for example, Bender compares closed caption data representing the news broadcast (one segment) to news wire text stories (a different segment) via keyword matching to determine, whether according to predetermined criteria (*e.g.*, a threshold number of matched keywords), the segments are related. See *e.g.*, Bender at pp. 82-83 (describing keyword matching process)("Network Plus is comprised of two procedural components. One gathers information prior to the broadcast. The other matches stories during the broadcast", "The primary function of Network Plus is to correlate news wire stories and live broadcasts. . . . A keyword matching scheme was chosen, based upon empirical evidence that there exists a sufficient correspondence between words found in the transcript and words found in the wire service stories. If the number of words common to both the transcript and a trial story exceeded some threshold, the two were designated as related. . . . A threshold of four words worked well in this experiment. . ."))(emphasis added). Bender further provides a specific example illustrating the process for comparing a news wire story about the nuclear accident at Chernobyl to a television broadcast on "ABC Nightly News" to determine they were related. *Id.* Thus, Bender discloses at least comparing the closed caption data for the news broadcast with the news wire text via keyword matching to determine whether according to a predetermined threshhold for keyword matching (*e.g.*, four common words), the broadcast and the news wire story are related. Once again, Bender discloses the exact same type of comparison between closed caption data and news wire

text that is described not just in the claim, but in the preferred embodiment of the '507 patent wherein closed caption data for the news broadcast is compared to news wire text to determine if they are related by "any appropriate method." '507 patent at 28:5-23, 36-38.

instructions for generating a display of a portion of, or a representation of, a second segment of the body of information from data that is part of the stored data, wherein the display of the portion or representation of the second segment is generated in response to the display of a first segment to which the second segment is related.

Bender discloses instructions for generating a display of a portion of, or a representation of, a second segment of the body of information from data that is part of the stored data, wherein the display of the portion or representation of the second segment is generated in response to the display of a first segment to which the second segment is related because, for example, Bender discloses displaying the news wire text that has been determined to be related to the television news broadcast, in response to and along with the television news. See *e.g.*, Bender Figs. 1 (p.85) ("Locally Packaged Television. On the top is the original broadcast . . . On the right, the map is replaced with text from the news wire services") and Fig. 2 (p. 86) (The live broadcast is in the lower right quadrant. . . . Text from the wire services is on the left); Bender at p. 81 ("Network Plus annotates the television news with articles drawn from a local copy of wire service new material selected and presented along with the video in real time."); Bender at p. 81-82 ("The display is divided into three sections (figure 2). In the lower right quadrant, the news telecast is shown live, in its entirety. The left half of the screen is used to display related news wire stories..")(emphasis added). Once again, Bender discloses the same type of display described not just in the claim, but in the preferred embodiment of the '507 patent – the second segment (the news wire text) is displayed in response to and along with the news broadcast and stills. *Compare* '507 patent FIG. 2B with Bender Figs. 1 and 2; see also '507 patent at 14:64-15:3, 18:52-67.

CLAIM 64

A computer readable medium as in claim 63, further comprising instructions for causing the display of the portion or representation of the second segment to occur substantially coextensive in time with the display of the related first segment.

Bender discloses instructions for causing the display of the portion or representation of the second segment to occur substantially coextensive in time with the display of the related first segment because, for example as shown in Bender Figs. 1 and 2, the news wire text is displayed at the same time as both the broadcast news and stills. *See e.g.*, Bender at Fig. 2 (p. 86) and pp. 81-82 ("The display is divided into three sections (figure 2). In the lower right quadrant, the news telecast is shown live, in its entirety. The left half of the screen is used to display related news wire stories. A third section, the upper right quadrant, is reserved for displaying video stills extracted from the broadcast.")(emphasis added). Again, the Bender disclosure matches not just the claim, but the preferred embodiment described in the '507 patent. *Compare* '507 patent FIG. 2B with Bender Figs. 1 and 2; see also '507 patent at 14:64-15:3, 18:52-67.

CLAIM 65

A computer readable medium as in claim 63, wherein: the instructions for acquiring data representing the body of information further comprise instructions for acquiring audiovisual data representing at least a portion of the body of information, wherein the first and second segments are represented by audiovisual data; and

Bender discloses instructions for acquiring audiovisual data representing at least a portion of the body of information, wherein the first and second segments are represented by audiovisual data (*e.g.*, "The display is divided into three sections (figure 2). In the lower right quadrant, the news telecast is shown live, in its entirety. The left half of the screen is used to display related news wire stories. A third section, the upper right quadrant, is reserved for displaying video stills extracted from the broadcast. As the telecast is shown live, stories determined to be related to the telecast are displayed.") Bender at FIG. 2, pp. 81-82 and 86. Further, Bender discloses that a map may also be displayed along with the broadcast. Bender at FIG. 1, p. 85 (showing that a "map has been inserted locally" which is related as shown in the figure because it corresponds to the same region as the original map, but is annotated). The displayed telecast (a first segment) is audiovisual data and either the image of the news wire story, or graphic such as

a map (either of which may be a second segment) are audiovisual data. '507 patent at 9:50-56. Moreover, one skilled in the art would understand that the news wire services have long provided photographs by wire service, since at least 1935 when Associated Press introduced its Wirephoto Network (*see e.g.,* http://www.ap.org/pages/history/photos.htm)(describing the development of AP's news wire photo service); thus the news wire data acquired by Bender's Network plus could include photographs. Once again, the display of a television news broadcast and still images meet what is described not just in the claim, but in the preferred embodiment of the '507 patent. '507 patent at 18:52-64.

the instructions for generating a display of a first segment of the body of information further comprise instruction for generating an audiovisual display of the first segment.

Bender discloses instructions for generating an audiovisual display of the first segment because, for example, the television news broadcast (a first segment) is audiovisual data. *See e.g.*, Bender at Figs.1 (p. 85) and 2 (p. 86); pp. 81-82 ("The display is divided into three sections (figure 2). In the lower right quadrant, the news telecast is shown live, in its entirety. The left half of the screen is used to display related news wire stories. A third section, the upper right quadrant, is reserved for displaying video stills extracted from the broadcast.")(emphasis added)..

CLAIM 67

A computer readable medium as in claim 63, wherein: the instructions for acquiring data representing the body of information further comprise instructions for acquiring audiovisual data representing at least a portion of the body of information;

Bender discloses instructions for acquiring audiovisual data representing at least a portion of the body of information because, for example, the television news broadcast, among other items, is audiovisual data. *See e.g.*, Bender at FIG. 2 (p. 86), pp. 81-82 ("The display is divided into three sections (figure 2). In the lower right quadrant, the news telecast is shown live, in its entirety. The left half of the screen is used to display related news wire stories. A third section, the upper right quadrant, is reserved for displaying video stills extracted from the broadcast. As the telecast is shown live, stories determined to be related to the telecast are displayed.")(emphasis added). . The body of information includes a television broadcast and video stills, which are both audiovisual information under the '507 patent's definition of that

term. '507 patent at 9:50-56 ("'audiovisual data' refers to data that includes audio and/or video data, and may include text data").

> **the instructions for generating a display of a first segment of the body of information further comprise instructions for generating an audiovisual display of the first segment; and**

Bender discloses instructions for generating an audiovisual display of the first segment because it displays the television news broadcast (a first segment), among other items, which is audiovisual data. *See e.g.*, Bender at FIG. 2 (p.86), pp. 81-82 ("The display is divided into three sections (figure 2). In the lower right quadrant, the news telecast is shown live, in its entirety. The left half of the screen is used to display related news wire stories. A third section, the upper right quadrant, is reserved for displaying video stills extracted from the broadcast.")(emphasis added).

> **the instructions for generating a display of a portion of, or a representation of, a second segment of the body of information further comprise instructions for generating a text display of the portion or representation of the second segment.**

Bender discloses instructions for generating a text display of the portion or representation of the second segment because, for example, the news wire stories (a second segment) are text. *See e.g.*, Bender at FIG. 2 (p. 86), pp. 81-83 ("The left half of the screen is used to display related news wire stories. . . . As the telecast is shown live, stories determined to be related to the telecast are displayed.") Bender at FIG. 2, pp. 81-83 and 86. The news wire stories in Bender are exactly the same type of "text" display described not only in this claim, but in the preferred embodiment of the '507 patent. '507 patent at 18:64-67.

CLAIM 70

> **A computer readable medium as in claim 63, further comprising instructions for identifying the subject matter content of a segment of the body of information, wherein the instructions for comparing further comprise instructions for determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined.**

Bender discloses instructions for identifying the subject matter content of a segment of the body of information, wherein the instructions for comparing further comprise instructions for

determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined because for example, Bender discloses comparing keywords lists representing subject matter content of the news wire stories (a second segment) and television broadcasts (a first segment) closed caption data and using a predefined threshold for keyword matching (*e.g.*, four words as an example) to determine whether the segments are related. *See e.g.*, (Bender at pp. 82-83 (describing keyword matching process)("The primary function of Network Plus is to correlate news wire stories and live broadcasts. . . . A keyword matching scheme was chosen, based upon empirical evidence that there exists a sufficient correspondence between words found in the transcript and words found in the wire service stories. If the number of words common to both the transcript and a trial story exceeded some threshold, the two were designated as related. . . . A threshold of four words worked well in this experiment. . . .")(emphasis added).

CLAIM 74

A computer readable medium as in claim 63, wherein the instructions for acquiring data further comprise instructions for acquiring computer-readable data files over a computer network from an information providing site that is part of that network.

Bender discloses instructions for acquiring computer-readable data files over a computer network from an information providing site that is part of that network (*e.g.*, "A variety of both local and remote databases which operate passively as well as interactively are accessed by 'reporters.' These 'reporters' are actually software interfaces, which are programmed to gather news. Ideally, they are 'broadcatching'; that is to say, watching all broadcast television channels, listening to all radio transmissions, and reading all newspapers, magazines, and journals.") Bender at pp. 81-82. Bender also explains that the "news gathering agents contact news wire sources." Bender at p. 82. Thus, once again as described in the preferred embodiment of the '507 patent, Bender discloses acquiring the very same type of data, including computer-readable data files for the news wire stories and/or the television broadcast.

CLAIM 77

A computer readable medium as in claim 63, further comprising instructions for identifying an instruction from a user to begin displaying at least some of

the body of information, wherein the display of a first segment is begun in response to the user instruction.

Bender discloses instructions for identifying an instruction from a user to begin displaying at least some of the body of information, wherein the display of a first segment is begun in response to the user instruction. *See e.g.*, Bender at p. 81 ("In response to instructions from both the broadcaster and the reader, this agent selects from incoming data and presents it in a manner suggestive of traditional media.") (emphasis added)

CLAIM 80

A computer readable medium as in claim 63, wherein at least some of the acquired data is digital data, the instructions for acquiring data further comprising instructions for acquiring digital data.

Bender discloses that at least some of the acquired data is digital data, the step of acquiring data further comprising the step of acquiring digital data because the closed caption data is digital and the news wires stories are also digital. *See e.g.*, Bender at p. 81 ("broadcast closed caption digital transcription")(emphasis added); p. 82 ("Prior to the broadcast, news gathering agents contact news wire sources (Dow Jones News Service, X*Press and NEXIS).") These news services send information digitally. See OTH-B (*e.g.*, "The product, called Newshedge [...] gives users access to "live" news from [...] Dow Jones News Service. [...] Newshedge funnels downloaded data into a stream").

CLAIM 81

A computer readable medium as in claim 63, wherein at least some of the acquired data is analog data, the instructions for acquiring data further comprising instructions for acquiring analog data.

Bender discloses that at least some of the acquired data is analog data, the instruction for acquiring data further comprising instructions for acquiring analog data (*e.g.*, "Network Plus is designed to work with closed caption news broadcasts (currently ABC, and NBC caption there national news.") Bender at pp. 81-83. Network Plus acquired live NTSC news broadcasts, which in 1988 inherently comprised analog data. Bender at p. 84. Moreover, Bender also discloses acquiring "radio transmissions," which in 1988 would also have comprised analog data. Bender at p. 81.

B. BENDER IN VIEW OF PATENT OWNER ADMISSIONS RENDERS OBVIOUS CLAIMS 28, 37, 71, AND 80 OF THE '507 PATENT

Please See the attached Exhibit CC-B presenting claim charts comparing Bender in view of Patent Owner Admissions with claims 28, 37, 71, and 80 of the '507 patent.

REASONS TO COMBINE

Bender is directed toward "combining news wire services with network television news" based on their similarities Bender at p. 81. Similarly, the '507 patent is directed toward identifying and displaying news stories that are related to a television news program. '507 patent at Abstract. Both Bender and the '507 patent describe comparing closed caption data and news wire stories, both of which are text based. The '507 patent discloses that relevance feedback was well known for use in determining the similarities between two sets of information, particularly text (*e.g.*, "The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). '507 patent at 28:55-29:3.[7]

A person of ordinary skill in the art, looking for a method of determining similarities between two information sources, particularly two text sources, such as the articles and closed captioning disclosed in Bender, would have been motivated to use the relevance feedback method of the prior art as discussed in the '507 patent for at least the advantages disclosed the prior art which the '507 patent incorporates by reference. Thus, it would have been obvious to use a relevance feedback method to compare information in Bender since Bender and the admissions relate to well-known methods of comparing information. Moreover, the combination of Bender and the admissions by the Patent Owner yields a predictable result, and one of

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[7] Patent owner also admits that the prior art incorporated by reference into the '507 patent touts the benefits of using relevance feedback. *See, e.g.,* "Improving Retrieval Performance by Relevance Feedback," Salton, G., Journal of the American Society for Information Science, vol. 41, no. 4, pp. 288-297 ("Salton"); *see also* "The Effect of Adding Relevance Information in a Relevance Feedback Environment," Buckley, C., et al., Proceedings of 17th International Conference on Research and Development in Information Retrieval, DIGIR 94, Springer-verlag (Germany), 1994, pp. 292-300 ("Buckley").

ordinary skill in the art would clearly be capable of combining these systems to achieve the expected result of determining similarities between two information sources.

CLAIM 28

A method as in claim 27, wherein the step of determining the similarity of the subject matter of segments further comprises the step of performing a relevance feedback method.

The '507 patent includes admissions that the use of relevance feedback methods to compare text was well known in the art. *See e.g.*, '507 patent at 28:55-29:3 ("The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). As explained above, these admissions can be used in combination with prior patents and printed publications to establish an SNQ. *See*: MPEP § 2617(III). Per MPEP § 2617, admissions, which include admitted prior art, can also be used during the examination phase of reexamination, *i.e.*, in claim rejections. Section 2617 refers the reader to MPEP § 2258. MPEP § 2258(I)(F)(2) states, "In *Seiko*, [*Ex parte Seiko Koko Kabushiki Kaisha*, 225 USPQ 1260 (Bd. Pat. App. & Inter. 2984)] the Board relied on *In re Nomiya*, 509 F.2d 566, 184 USPQ 607 (CCPA 1975) holding an admission of prior art in the specification of the parent undergoing reexamination is considered prior art which may be considered as evidence of obviousness under 35 U.S.C. 103."[8] Thus, claim 28 would have been obvious to a person of ordinary skill in the art in view of Bender alone or in combination with the admissions made by the Patent Owner.

CLAIM 37

A method as in claim 20, wherein at least some of the acquired data is digital data, the step of acquiring data further comprising the step of acquiring digital data.

As discussed above, Bender discloses that at least some of the acquired data is digital data, the step of acquiring data further comprising the step of acquiring digital data because the

[8] Moreover, the '507 Patent also discloses that the degree of similarity can be determined using any appropriate method, thus further confirming that relevance feedback does not provide a basis to distinguish the claimed invention. As such, Bender either alone or in combination with the Patent Owner's admissions and/or the incorporated Salton and Buckley references renders claim 28 obvious.

closed caption data is digital and the news wires stories are also digital. *See e.g.*, Bender at p. 81 ("broadcast closed caption digital transcription")(emphasis added); 82 ("Prior to the broadcast, news gathering agents contact news wire sources (Dow Jones News Service, X*Press and NEXIS).") These news services send information digitally. See OTH-B (*e.g.*, "The product, called Newshedge […] gives users access to "live" news from […] Dow Jones News Service. […] Newshedge funnels downloaded data into a stream").

To the extent that it is viewed that Bender does not expressly disclose acquiring digital data, the '507 patent includes admissions that data acquired from news sources must be digital to process it as taught by Bender: "As will be apparent from the description below, the processing of the data representing the primary and secondary information generally requires that the data be in digital form. Text data acquired from online text sources, for example, is acquired in digital form and so can be used directly in such processing." *See e.g.*, '507 patent at 12:3-8. As explained above, these admissions can be used in combination with prior patents and printed publications to establish an SNQ. *See*: MPEP § 2617(III). Thus, claim 37 would have been obvious to a person of ordinary skill in the art in view of Bender alone or in combination with the admissions made by the Patent Owner.

CLAIM 71

> **A computer readable medium as in claim 70, wherein the instructions for determining the similarity of the subject matter of segments further comprise instructions for performing a relevance feedback method.**

Claim 71 depends from claim 70 and recites the same additional limitation as in claim 28 that the degree of similarity is determined by "a relevance feedback method." Thus, for the same reasons explained above in connection with claim 28, claim 70 would have been obvious in view of Bender alone or in combination with the Patent Owner's admissions (regarding the use of

relevance feedback as well known in the art for comparing text segments)[9], which describe the benefits of using relevance feedback.[10]

CLAIM 80

> **A computer readable medium as in claim 63, wherein at least some of the acquired data is digital data, the instructions for acquiring data further comprising instructions for acquiring digital data.**

Claim 80 depends from claim 62 and recites the same additional limitation as in claim 37 regarding the acquired data being digital data. Thus, for the same reasons explained above in connection with claim 37, claim 80 would have been obvious to a person of ordinary skill in the art in view of Bender alone or in combination with the admissions made by the Patent Owner.

C. BENDER IN VIEW OF CHESNAIS AND FURTHER IN VIEW OF PATENT OWNER ADMISSIONS RENDER OBVIOUS CLAIMS 22, 23, 65, AND 66 OF THE '507 PATENT

Please see the attached Exhibit CC-C presenting claim charts comparing Bender in view of Chesnais and further in view of Patent Owner admissions with claims 22, 23, 65, and 66 of the '507 patent.

REASONS TO COMBINE

At the time of the alleged invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of Chesnais with Bender to have a second segment that was "represented by audiovisual data" (claims 22 and 65) and to enable selection of a representation of a second segment to cause the display of the selected second segment to be produced (claims 23 and 66), both of which are disclosed by Chesnais. Specifically, both Bender and Chesnais relate to systems and methods for collecting and reviewing information from a variety of sources, comparing data representing that information to identify related information and presenting the related information to a user in a computer based interface. For example,

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[9] Patent owner also admits that Salton and Buckley, prior art references, disclose using relevance feedback in a similar manner.

[10] Moreover, the '507 Patent also discloses that the degree of similarity can be determined using any appropriate method, thus further confirming that relevance feedback does not provide a basis to distinguish the claimed invention. As such, Bender either alone or in combination with the Patent Owner's admissions and/or the incorporated Salton and Buckley references renders claim 71 obvious.

Chesnais describes that when a user selects an article, the user is presented with related photo and audio content as well as the selected article. *See e.g.,* Chesnais Fig. 2 and p. 277 ("The article is then rendered by the front end application with hints given by the signatures. Fishwrap also checks is photo and audio databases to see if there are photos and sound recordings that match the story.") As described in Chesnais, this would allow a viewer of the first segment of information to view additional useful information (*e.g.*, related photos). In addition, both the Bender Network Plus article and the Chesnais article arise out of work at the MIT Media Laboratory and Pascal Chesnais is a listed author on both references. One skilled in the art would certainly be motivated to consider the Chesnais article given the common subject matter and overlapping authorship with the Bender article and the improvements made possible by web browsers.

CLAIM 22

> **A method as in claim 20, wherein: the step of acquiring data representing the body of information further comprises the step of acquiring audiovisual data representing at least a portion of the body of information, wherein the first and second segments are represented by audiovisual data; and**

Bender in view of Chesnais discloses the step of acquiring data representing the body of information further comprises the step of acquiring audiovisual data representing at least a portion of the body of information, wherein the first and second segments are represented by audiovisual data because, for example, Chesnais discloses that an article (a first segment) may include images (as shown below) and the related photos (thumbnails below) (a second segment) are also audiovisual data. *See* '507 patent at 9:47-60 (audiovisual data includes "audio and/or video data [which includes images]").

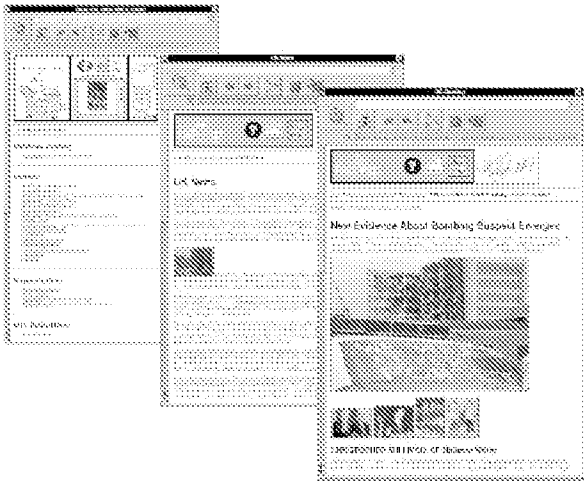


Fig. 2. A Fishwrap reader starts with their edition's table of contents. Then focuses on a particular news topic and, ultimately, articles that are illustrated with graphics and audio.

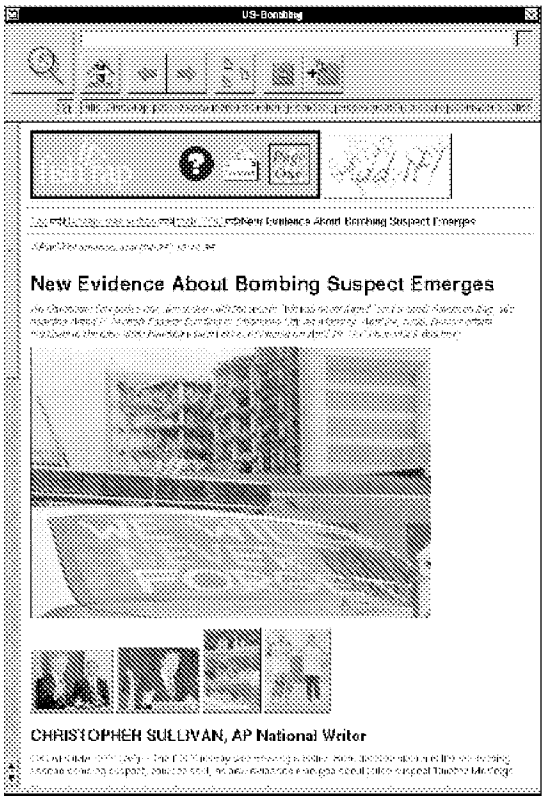


Fig. 13. An article illustrated with photographs.

Further, Chesnais explains that the data used to build the Fishwrap newspaper comes in all forms, including video and graphics files. Chesnais at p. 278 ("Our current Fishwrap news server uses a media-independent representation, that allows it to accept items with graphics, audio, text, and motion pictures.") *See also* Chesnais at p. 278 ("The article is then rendered by the front end application with hints given by the signatures. Fishwrap also checks its photo and audio databases to see if there are photos and sound recordings that match the story.")

the step of generating a display of a first segment of the body of information further comprises the step of generating an audiovisual display of the first segment.

Chesnais discloses generating a display of a first segment that comprises generating an audiovisual display of the first segment because the articles in Chesnais (a first segment) include photos and/or graphics. *See e.g.,* Chesnais at Figs. 2 and 13; p. 277 ("The article is then rendered by the front end application with hints given by the signatures.") Further, Figs. 2 and 13 (both reproduced above) illustrate an article, such as the "New Evidence About Bombing Suspect Emerges," is displayed and includes images (either the center or right panel in Fig. 2 or Fig. 13),

whihc are audiovisual data. '507 patent at 9:50-56 ("'audiovisual data' refers to data that includes audio and/or video data, and may include text data")

CLAIM 23

A method as in claim 22, further comprising the step of identifying the selection of a second segment for which a portion or representation is being displayed, wherein selection of such second segment causes an audiovisual display of the selected second segment to be produced.

Bender, in view of Chesnais, discloses identifying the selection of a second segment for which a portion or representation is being displayed, wherein selection of such second segment causes an audiovisual display of the selected second segment to be produced, because, for example, Chesnais explains that it uses a web browser and, as shown for example in Fig. 2, a user may select an article from a list of related articles and have that article displayed or select a photo. *See e.g.,* Chesnais Fig. 2; at p. 276 ("If an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation"; "In addition, each article displays the news topics which it matches. This enables the readers to directly view similar articles and is used to immediately add the news topic to their profile"). Further, as discussed above, Chesnais displays an article and photos (thumbnails) that have been identified as related, and this display uses hypertext approach with a web browser, which allows a user to navigate through the "presentation" of information. See Chesnais at p. 279. ("[Hypertext] allows the individual to follow links along the Fishwrap table of contents akin to the way one would flip through pages of a traditional newspaper. . . . HTML also provides a uniform mechanism for accepting input from the reader.") Figs. 2 and 13 in Chesnais also illustrate how a Fishwrap user can select items for further display. *Id.* at pp 276 and 282. "In addition, each article displays the news topics which it matches. This enables the readers to directly view similar articles and is used to immediately add the news topic to their profile"). *Id.* at p. 276. Thus, Chesnais discloses the ability to accept a user selection of a representation or portion of the second segment and display an audiovisual (*e.g.*, images, graphics, etc.) of that segment. Moreover, as discussed above, the Patent Owner has contended that images, such as those disclosed in Chesnais, constitute the recited audiovisual information within the scope of the '507 patent. *See* **OTH-B, Infringement Contentions at p. 18.**

CLAIM 65

> **A computer readable medium as in claim 63, wherein: the instructions for acquiring data representing the body of information further comprise instructions for acquiring audiovisual data representing at least a portion of the body of information, wherein the first and second segments are represented by audiovisual data; and**
> **the instructions for generating a display of a first segment of the body of information further comprise instruction for generating an audiovisual display of the first segment.**

Claim 65 depends from claim 63 and contains the parallel of the additional limitation of claim 22 regarding the first and second segments being represented by "audiovisual data." Thus, for the same reasons set forth with respect to claim 22, claim 65 would have been obvious to one of ordinary skill in the art based on Bender in view of Chesnais.

CLAIM 66

> **A computer readable medium as in claim 65, further comprising instructions for identifying the selection of a second segment for which a portion or representation is being displayed, wherein selection of such second segment causes an audiovisual display of the selected second segment to be produced.**

Claim 66 depends from claim 65 and contains the parallel of the additonal limitation of claim 23 regarding the selection of a portion or representation of the second segment that causes an audiovisual display of the second segment to be produced. Thus, for the same reasons set forth with respect to claim 23, claim 66 would have been obvious to one of ordinary skill in the art based on Bender in view of Chesnais.

D. CHESNAIS IN VIEW OF AP STYLEBOOK AND FURTHER IN VIEW OF WIRE SERVICE TRANSMISSION GUIDELINES RENDERS OBVIOUS CLAIMS 20-24, 27, 31, 34, 37, 38, 63-67, 70, 74, 77, 80, AND 81 OF THE '507 PATENT

Please see the attached Exhibit CC-D presenting claim charts comparing Chesnais in view of the AP Stylebook and WST Guidelines with claims 20-24, 27, 31, 34, 37, 38, 63-67, 70, 74, 77, 80, and 81 of the '507 patent.

REASONS TO COMBINE

Chesnais is directed toward an electronic newspaper that builds a presentation on the fly and combines for users a variety of data types (e.g., newswire stories, photos and audio, video etc.) based on their similarity. Chesnais, p. 275. For example, Chesnais explains that "[w]hen a

reader generates a newspaper through Fishwrap . . . . The article is then rendered by the front end application with hints given by the signatures. Fishwrap also checks its photo and audio databases to see if there are photos and sound recordings that match the story." Chesnais at p. 277 (emphasis added).

Chesnais also discloses receiving news feeds from the Associated Press ("AP"). Chesnais, p. 278; Fig. 6. Further, one skilled in the art would understand that news wire services have long provided photographs by wire service, since at least 1935 when the AP introduced its Wirephoto Network (*see e.g.,* http://www.ap.org/pages/history/photos.htm) (describing the development of AP's news wire photo service). Chesnais references the *Wire Service Transmission Guidelines* Special Report No. 84-2, from the American Newspaper Publishers Association (ANPA). Chesnais at p. 278 & 282. These guidelines specify the content and format of headers applied to newswire items, including a field for keywords. WST Guidelines at 1 & 2. The AP used these headers. *Id.* at 1. The AP Stylebook indicates that stories, photos, and graphics follow the same coding requirements for wire transmission. AP Stylebook at p. 297-299. "Every news item in the AP report has a keyword slug line." *Id.* at 299. Further, AP photos had associated text captions. *Id.* at p. 293-296. Chesnais states that the signature added to an item is "derived from the ANPA format coding." Chesnais, p. 279. A person of ordinary skill in the art, looking for a method of determining similarities between two information sources such as the articles and other content disclosed in Chesnais would have been motivated to compare the signatures for the news stories and photos (or sound recordings). Because Chesnais discloses that each item in the system is assigned a "signature" that includes keywords and discloses identifying photos and audio that "match" a news article, and the AP Stylebook discloses that all news items transmitted over the news wire have a slugword containing keywords, one of skill in the art would have been motivated to combine the teachings of the WST Guidelines and the AP Stylebook regarding the slugword keywords with the disclosure of Chesnais to identify matching photos and sound recordings. Because Chesnais explicitly discloses receiving news wire items from the AP, it would have been obvious to use the keyword slugline of an AP news item as a basis to compare information in Chesnais because the "signatures" contain keywords. Moreover, the combination of Chesnais, the WST Guidelines, and the AP Stylebook yields a predictable result, and one of ordinary skill in the art would

clearly be capable of combining these systems to achieve the expected result of determining similarities between two information sources.

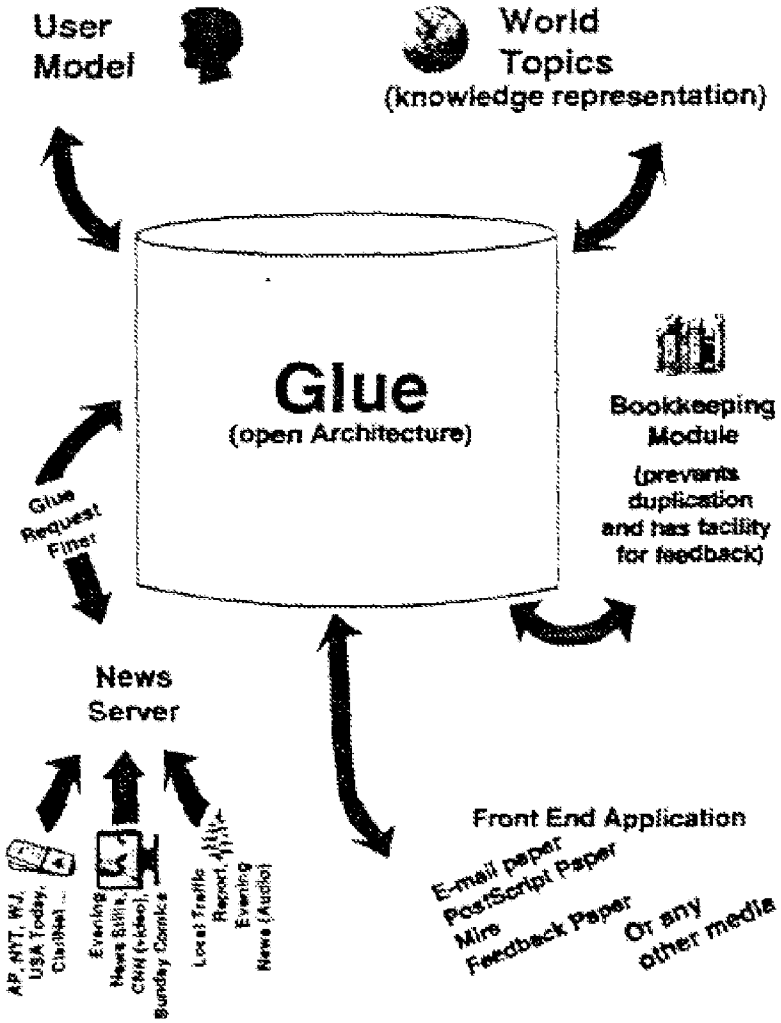
CLAIM 20

A method for acquiring and reviewing a body of information, wherein the body of information includes a plurality of segments, each segment representing a defined set of information in the body of information, the method comprising the steps of:

Chesnais discloses a method for acquiring and reviewing a body of information, wherein the body of information includes a plurality of segments, each segment representing a defined set of information in the body of information (*e.g.*, "Fishwrap is an experimental electronic newspaper system available at MIT." (p. 275); "The Fishwrap design readily accepts traditional news wire stories and direct contributions from the community." (*Id.*); "All items coming into the system are analyzed for geographic and topical relevancy." (*Id.*) (emphasis added); "Access to Fishwrap's personalized news system appears as a World Wide Web (WWW) hypertext link" (*Id.*); "[W]ithin Fishwrap an article begins when it appears on any incoming data stream. Each data stream has its own supplier program which monitors incoming traffic. Articles come to Fishwrap in many formats: over satellite, radio frequencies, email, and phone line. Each supplier program does three things: First it translates all news items into an internal, wire-independent representation using Dtype [3] expandable data structure. Second the supplier adds a signature to each item. The signature represents an inference made from the data. Finally each article is supplied to the Fishwrap news database server." (p. 277) (emphasis added);[11] "A Fishwrap reader starts with their edition's table of contents, then focuses on a particular news topic and, ultimately, articles that are illustrated with graphics and audio." (p. 276).) Further as shown in Fig. 6 (reproduced below) the "News Server" receives many different types of data, including news wire feeds, evening news stills and video, and audio files. (Fig. 6, at 278). As

[11] As shown in this quotation, Chesnais uses the word "article" in some aspects to refer to "all news items," not just news items that are articles. Further, references in quotes to Chesnais in the form of [number] appear this way in the Chesnais publication and refer to the references listed at the end of the article.

described above, each of these different data items represent distinct segments that Fishwrap analyzes and creates a "signature" for.



acquiring data representing the body of information;

Chesnais discloses acquiring data representing the body of information (*e.g.*, "The Fishwrap design readily accepts traditional news wire stories and direct contributions from the community." (p. 275); "[W]ithin Fishwrap an article begins when it appears on any incoming data stream. Each data stream has its own supplier program which monitors incoming traffic. Articles come to Fishwrap in many formats: over satellite, radio frequencies, email, and phone line." (p. 277); "*Suppliers and Servers* – Fishwrap receives news from a variety of sources and formats. The traditional news wires (Associated Press, Reuters, Knight-Ridder/Tribune, and BPI Entertainment all are providing their news feeds to Fishwrap) come in ANPA [7] format.

Fishwrap also receives submissions via electronic mail and a number of 'homebrew' formats'" (p. 278)). Further, as shown above with respect to Fig. 6, the "NEWS SERVER" acquires information from a variety of sources, including text, video, images and audio. (*Id.*). Chesnais also explains that "[o]ur current Fishwrap news server uses a media-independent representation, that allows it to accept items with graphics, audio, text, and motion pictures. It is up to the presentation application to determine the appropriate medium to provide." (p. 279.) As exemplified by the above citations, Chesnais discloses acquiring a variety of different types of data that make up a body of information.

storing the acquired data;

Chesnais discloses storing the acquired data, including for example news wire stories, photos and audio files in databases. *See e.g.*, Chesnais at p. 277 ("[W]ithin Fishwrap an article begins when it appears on any incoming data stream. Each data stream has its own supplier program which monitors incoming traffic. . . . Finally each article is suplied to the Fishwrap news database server [4] where it will remain for the next 48 hours."); and Chesnais at p. 278 ("Fishwrap also checks its photo and audio databases to see if there are photos and sound recordings that match the story."); *see also id.* at Fig. 6. Thus, Chesnais describes that it stores all incoming items.

generating a display of a first segment of the body of information from data that is part of the stored data;

Chesnais discloses generating a display of a first segment of the body of information from data that is part of the stored data because, for example, it discloses generating a display of an article. *See e.g.,* Chesnais at 277 (e.g., "When a reader generates a newspaper through Fishwrap, an article is retrieved if it matches one of the reader's global topics of interest. . . .[and an "article is then rendered by the front end application"); *see also* Figs. 2 and 13 (reproduced below). Chesnais further explains that it uses a web browser to provide the display. *See e.g.*, Chesnais at p. 275 ("World Wide Web browser access allows for easy traversing of the information space (see Figure 2)."). Chesnais further explains how the user navigates to display an article—"[a] Fishwrap reader starts with their edition's table of contents, then focuses on a particular news topic and, ultimately, articles that are illustrated with graphics and audio." Chesnais at p. 276. Figs. 2 and 13, reproduced below further illustrate how a user of Fishwrap can navigate to a particular news item, such as the article "New Evidence About Bombing

Suspect Emerges," which represents an example of the display of a first segment generated from the stored data.

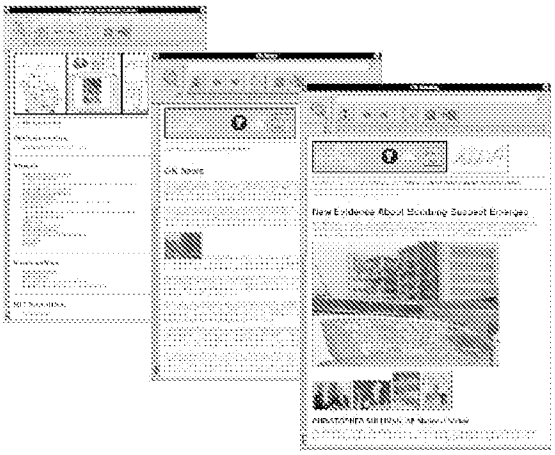


Fig. 2. A Fishwrap reader starts with their edition's table of contents, then focuses on a particular news topic and, ultimately, articles that are illustrated with graphics and audio.

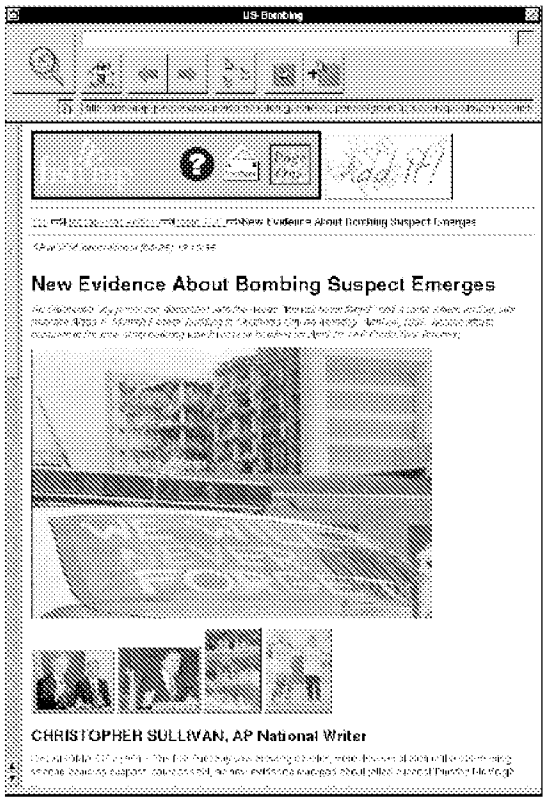


Fig. 13. An article illustrated with photographs.

Chesnais at FIGS. 2 and 13

comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related; and

Chesnais discloses comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related. As explained below, Chesnais discloses that all incoming items are provided with a signature which is used for searching, and that when an article is rendered Fishwrap also searches the photo and audio databases for items that "match the story" (*i.e.*, related items). *See e.g.*, Chesnais at 277 ("When a reader generates a newspaper through Fishwrap . . . . The article is then rendered by the front end application with hints given by the signatures. Fishwrap also checks its photo and audio databases to see if there are photos and sound recordings that match the story.") (emphasis added); and Chesnais at p. 281 ("One blind student appreciated the . . . audio segments for

illustrations."). As discussed in more detail below, Chesnais discloses the "comparing" as identifying "photos and sound recordings that match the story." Chesnais makes this possible because, as addressed immediately below, the Fishwrap system stores the incoming items (*e.g.,* stories, audio files, and photos) with "signatures" ("data representing" a segment).

For example, Chesnais explains that the "signatures," which are derived from the incoming data are applied to all items coming into the system. Chesnais at p. 275 ("All items coming into the system are analyzed for geographic and topical relevancy."). These signatures are created along with a particular data structure ("Dtype")[12] and provides "inferences" about the item:

> within Fishwrap an article begins when it appears on any incoming data stream. Each data stream has its own supplier program which monitors incoming traffic. . . . . First it translates all news items into an internal, wire-independent representation using Dtype [3] expandable data structure. Second the supplier adds a signature to each item. The signature represents an inference made from the data.
>
> Chesnais at p. 277.

Further, as shown in Fig. 9 of Chesnais (reproduced below), the signature process (which adds the content labeled 1 and 3 to the item) provides additional data representing the item (i.e., an inference made from the data), such as a headline ("Survivors of Crash Victim Sue USAir"), a "slugword," and a "summary."

[12] Note that the Dtype data structure is described in Chesnais by example, but also by citation to reference [3] Abramson, Nathan S. *The dtype library or, how to write a server in less time that it takes to read this manual*, Technical Report, Electronic Publishing Group, MIT Media Laboratory, Cambridge, MA, 1992.

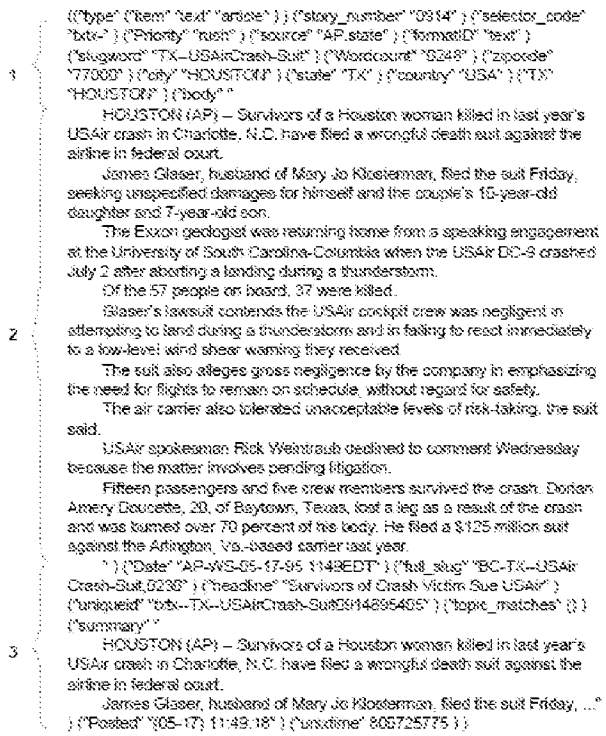


Fig. 9. An AP article in a Dype structure. The first and third portion is material derived from the ANPA format coding other information added to the article by the signature process.

Chesnais at p. 279.

Chesnais further explains that the signatures are used in searches ("because they significantly speed up the searches") used to build a paper to present to the user, which presentation, as described above and shown for example by the photo thumbnails in Figs. 2 and 13, also includes "photos and sound recordings that match the story." *See e.g.,* Chesnais at Figs. 2 and 13 and p. 277 (matching) & 279 (using signatures to "significantly speed up the searches."). Thus, the signatures, which include data representing the segments (*i.e.*, a headline and a summary like those shown in the third portion of Fig. 9), include predetermined criteria used to determine whether particular segments are related.

Chesnais discloses "comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related." However, even if the Examiner determines that Chesnais did not expressly disclose comparing signatures of two items to determine if they are related, it would have been obvious to one of ordinary skill in the art to

perform the recited comparison step based on Chesnais's disclosure in view of the WST Guidelines and AP Stylebook.

Chesnais references the *Wire Service Transmission Guidelines* Special Report No. 84-2, from the American Newspaper Publishers Association (ANPA). Chesnais at p. 278 & 282. These guidelines specify the content and format of headers applied to newswire items, including a field for keywords. WST Guidelines at 1 & 2. The Associated Press ("AP") used these headers. *Id.* at 1. The AP Stylebook indicates that stories, photos, and graphics follow the same coding requirements for wire transmission. AP Stylebook at p. 297-299. "Every news item in the AP report has a keyword slug line." *Id.* at 299. Further, AP photos had associated text captions. *Id.* at p. 293-296. Chesnais states that the signature added to an item is "derived from the ANPA format coding." Chesnais, p. 279. As shown in Fig. 9, the signature of an item included, for example, a "slugword" field with keywords. In short, the ANPA format coding for stories and photo captions from the AP provided the same type of information. Thus, to the extent it is not inherently disclosed, it would have been obvious to one of ordinary skill in the art that Chesnais's disclosure of "signatures" (described above) and checking Fishwrap's databases for "photos . . . that match the story" would include comparing the signature for a news story with the signatures for photos, including the text captions, (or audio files) to identify photos that are related to the news story using predetermined criteria, such as matching one or more fields from the signatures (e.g., a slugword, headline, or summary). In fact, this is one of the well-known functions that databases are designed to perform, using coded fields to make identification of information stored in the database easier. Comparing signatures of items to determine whether two items are related is applying a known technique to a known method to yield predictable results.

generating a display of a portion of, or a representation of, a second segment of the body of information from data that is part of the stored data, wherein the display of the portion or representation of the second segment is generated in response to the display of a first segment to which the second segment is related.

Chesnais discloses generating a display of a portion of, or a representation of, a second segment of the body of information from data that is part of the stored data, wherein the display of the portion or representation of the second segment is generated in response to the display of a first segment to which the second segment is related. Specifically, Chesnais discloses that the

Fishwrap system, in the following order, (1) renders an article, (2) then checks for photos or audio that match the article, and (3) then displays the related photos or audio. *See e.g.*, Chesnais at p. 277 ("The article is then rendered by the front end application with hints given by the signatures. Fishwrap also checks its photo and audio databases to see if there are photos and sound recordings that match the story. For most Fishwrap readers, articles are rendered in hypertext markup language (HTML) for a WWW browser."; and Chesnais at p. 281 ("One blind student appreciated the . . . audio segments for illustrations."). Chesnais further explains "On Demand Publishing: Fishwrap's use of the WWW is different from existing servers. Rather than be an archive of documents, Fishwrap contructs [sic] its personalized news documents on the fly. Building documents on demand allows Fishwrap to provide the most recent news." (*Id.* at 280). Finally, as shown in Figs. 2 and 13 (reproduced below), Fishwrap presents a user with photos (thumbnails shown below) and audio (display of a portion or representation of a second segment) that "match" or are related to the article being displayed (the first segment).

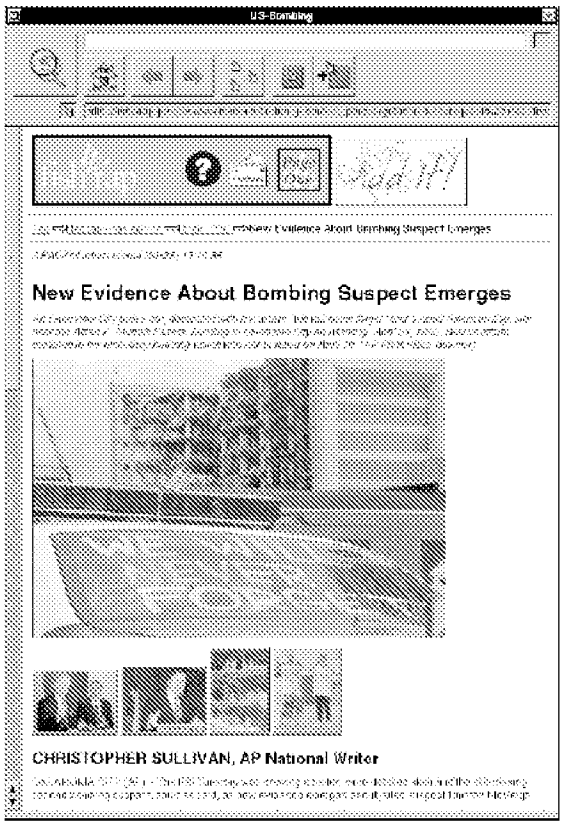


Fig. 13. An article illustrated with photographs.

CLAIM 21

A method as in claim 20, further comprising the step of causing the display of the portion or representation of the second segment to occur substantially coextensive in time with the display of the related first segment.

Chesnais discloses the step of causing the display of the portion or representation of the second segment to occur substantially coextensive in time with the display of the related first segment (*e.g.,*."[i]f an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation."). Further, as shown in particular in Fig. 13 above, the display of the photos (thumbnails) (a second segment) is substantially coextensive in time with the display of the article.

CLAIM 22

A method as in claim 20, wherein: the step of acquiring data representing the body of information further comprises the step of acquiring audiovisual data representing at least a portion of the body of information, wherein the first and second segments are represented by audiovisual data; and

Chesnais discloses the step of acquiring data representing the body of information further comprises the step of acquiring audiovisual data representing at least a portion of the body of information, wherein the first and second segments are represented by audiovisual data. As explained and shown above, the first segment may include images and the "related" segments include photos and/or audio. *See* '507 patent at 9:47-60 (audiovisual data includes "audio and/or video data [which includes images]"). Further, Chesnais explains that the data used to build the Fishwrap newspaper comes in all forms, including video and graphics files. (p. 278) ("Our current Fishwrap news server uses a media-independent representation, that allows it to accept items with graphics, audio, text, and motion pictures.") Finally, as shown in Fig. 13, both the underlying article and the photos that are displayed include images. See also Chesnais Fig. 6 (News Server acquires multiple types of data, including text, video, images and audio).

the step of generating a display of a first segment of the body of information further comprises the step of generating an audiovisual display of the first segment.

Chesnais discloses the step of generating a display of a first segment of the body of information further comprises the step of generating an audiovisual display of the first segment. For example, Figs. 2 and 13 of Chesnais plainly show that the underlying article includes audiovisual data (e.g., images). '507 patent at 9:50-56 ("video data . . . includ[es] images" and

"'audiovisual data' refers to data that includes audio and/or video data, and may include text data"). This is possible because Fishwrap is able to "accept items with graphics, audio, text and motion pictures." (p. 279.)

CLAIM 23

A method as in claim 22, further comprising the step of identifying the selection of a second segment for which a portion or representation is being displayed, wherein selection of such second segment causes an audiovisual display of the selected second segment to be produced.

Chesnais discloses the step of identifying the selection of a second segment for which a portion or representation is being displayed, wherein selection of such second segment causes an audiovisual display of the selected second segment to be produced. For example, Chesnais explains that it uses a web browser and, as shown in Fig. 2, a user may select an article from a list of related articles and have that article displayed or select a photo (e.g., thumbnail). *See e.g.,* Fig. 2; at 276 ("If an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation"; "In addition, each article displays the news topics which it matches. This enables the readers to directly view similar articles.") Chesnais also explains that the use of HTML format allows the user to navigate through the presentation. *See* Chesnais at 279 ("Fishwrap uses hypertext as means of structuring the presentation. It allows the individual to follow links along the Fishwrap table of contents akin to the way one would flip through pages of a traditional newspaper. HTML allows us to specify some of the visual attributes of the documents we present to the individual. HTML also provides a uniform mechanism for accepting input from the reader.") (emphasis added). Thus, Chesnais discloses the ability to accept a user selection of a representation or portion of the second segment (thumbnail) and display an audiovisual (e.g., images, graphics, etc.) of that segment. Alternatively, it is inherent in Chesnais's disclosure of using a web browser to render the Fishwrap paper to a user that the user could select a thumbnail to display the photo.

CLAIM 24

A method as in claim 20, wherein: the step of acquiring data representing the body of information further comprises the step of acquiring audiovisual data representing at least a portion of the body of information;

Chesnais discloses the step of acquiring data representing the body of information further comprises the step of acquiring audiovisual data representing at least a portion of the body of information. As explained and shown above, the first segment may include images and the "related" segments include photos and/or audio. *See* '507 patent at 9:47-60 (audiovisual data includes "audio and/or video data [which includes images]"). Further, Chesnais explains that the data used to build the Fishwrap newspaper comes in all forms, including video and graphics files. Chesnais, p. 278 ("Our current Fishwrap news server uses a media-independent representation, that allows it to accept items with graphics, audio, text, and motion pictures.") Finally, as shown in Fig. 13, both the underlying article and the photos that are displayed include images. See also Chesnais Fig. 6 (News Server acquires multiple types of data, including text, video, images and audio).

the step of generating a display of a first segment of the body of information further comprises the step of generating an audiovisual display of the first segment; and

Chesnais discloses the step of generating a display of a first segment of the body of information further comprises the step of generating an audiovisual display of the first segment. As explained immediately above, the articles in Chesnais may include a variety of data types, including graphics, photos and audio data. *See e.g.*, Fig. 2 and Chesnais at 276 ("If an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation.").

the step of generating a display of a portion of, or a representation of, a second segment of the body of information further comprises the step of generating a text display of the portion or representation of the second segment.

Chesnais discloses the step of generating a display of a portion of, or a representation of, a second segment of the body of information further comprises the step of generating a text display of the portion or representation of the second segment. For example, as shown in Fig. 2 a user may select an article from a list of related articles and have that article displayed. *See e.g.,* Fig. 2 and Chesnais at 276 ("If an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation.") Also, Chesnais discloses displaying news topics that match each article so that readers may directly view similar articles.

See e.g., Chesnais at 276 ("In addition, each article displays the news topics which it matches. This enables the readers to directly view similar articles.")

CLAIM 27

> **A method as in claim 20, further comprising the step of identifying the subject matter content of a segment of the body of information, wherein the step of comparing further comprises the step of determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined.**

Chesnais discloses the step of identifying the subject matter content of a segment of the body of information, wherein the step of comparing further comprises the step of determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined. For example, as discussed above in connection with claim 20 (comparing step), in Chesnais all incoming items are provided with a signature. As shown in Fig. 9 of Chesnais, the signature process (which adds the content labeled 1 and 3 to the item) provides additional data regarding the subject matter of the underlying item, such as a headline ("Survivors of Crash Victim Sue USAir"), a "slugword" that contains keywords, and a "summary."

To the extent it is not inherently disclosed, it would have been obvious to one of ordinary skill in the art that Chesnais's disclosure of "signatures" (described above) and checking Fishwrap's databases for "photos . . . that match the story" would include comparing the signature for a news story with the signatures for photos, including the text captions, (or audio files) to identify photos that are related to the news story by determining a degree of similarity between the news story and photos using predefined degree of similarity, such as matching one or more fields from the signatures (e.g., a slugword, headline, or summary) in view of the AP Stylebook's disclosure of the coding requirement for news wire items. In fact, this is one of the well-known functions that databases are designed to perform, using coded fields to make identification of information stored in the database easier. Comparing signatures of items to determine whether two items are related is applying a known technique to a known method to yield predictable results.

CLAIM 31

A method as in claim 20, wherein the step of acquiring data further comprises the step of acquiring computer-readable data files over a computer network from an information providing site that is part of that network.

Chesnais discloses the step of acquiring computer-readable data files over a computer network from an information providing site that is part of that network. As shown for example in Fig. 6, the News Server in Chesnais receives a variety of file types. FIG. 6 also shows that the News Server receives files from the ClariNet online news service, which is one of the information sources identified in the '507 patent at 10:1-3. Chesnais further explains that "[t]he traditional news wires (Associated Press, Reuters, Knight-Ridder/Tribune, and BPI Entertainment all are providing their news feeds to Fishwrap) come in ANPA [7] format. Fishwrap also receives submissions via electronic mail and a number of 'homebrew' formats." Thus, Chesnais discloses multiple types of computer-readable files being acquired by Fishwrap.

CLAIM 34

A method as in claim 20, further comprising the step of identifying an instruction from a user to begin displaying at least some of the body of information, wherein the display of a first segment is begun in response to the user instruction.

Chesnais discloses the step of identifying an instruction from a user to begin displaying at least some of the body of information, wherein the display of a first segment is begun in response to the user instruction because, for example, using Chesnais's web browser a user may select an article from a list of related articles and have that article displayed. *See e.g.,* Fig. 2 and Chesnais at 276 ("If an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation."). Chesnais also explains that the use of HTML format allows the user to navigate through the presentation. *See* Chesnais at 279 ("Fishwrap uses hypertext as means of structuring the presentation. It allows the individual to follow links along the Fishwrap table of contents akin to the way one would flip through pages of a traditional newspaper. HTML allows us to specify some of the visual attributes of the documents we present to the individual. HTML also provides a uniform mechanism for accepting input from the reader.")(emphasis added).

CLAIM 37

A method as in claim 20, wherein at least some of the acquired data is digital data, the step of acquiring data further comprising the step of acquiring digital data.

Chesnais discloses that at least some of the acquired data is digital data, the step of acquiring data further comprising the step of acquiring digital data. For example, Chesnais discloses that incoming items "come to Fishwrap in many formats: over satellite, radio frequencies, email, and phone line." Email is necessarily digital data. Moreover, the news wire services typically provided the information in digital form. See OTH-B (*e.g.*, "The product, called Newshedge […] gives users access to "live" news from […] Dow Jones News Service. […] Newshedge funnels downloaded data into a stream.") Moreover, the Patent Owner admitted that text from news wire services is digital data. *See, e.g.*, '507 at 12:6-8 ("Text data acquired from online text sources, for example, is acquired in digital form and so can be used directly in such processing.") FIG. 6 of Chesnais shows that the News Server receives files from the ClariNet online text source (news service), which is one of the information sources identified in the '507 patent at 10:1-3.

CLAIM 38

A method as in claim 20, wherein at least some of the acquired data is analog data, the step of acquiring data further comprising the step of acquiring analog data.

Chesnais discloses that at least some of the acquired data is analog data, the step of acquiring data further comprising the step of acquiring analog data. For example, Chesnais discloses information "come[s] to Fishwrap in many formats: over satellite, radio frequencies, email, and phone line." Radio frequency reception from the timeframe in which Chesnais was published would include the acquisition of analog data.

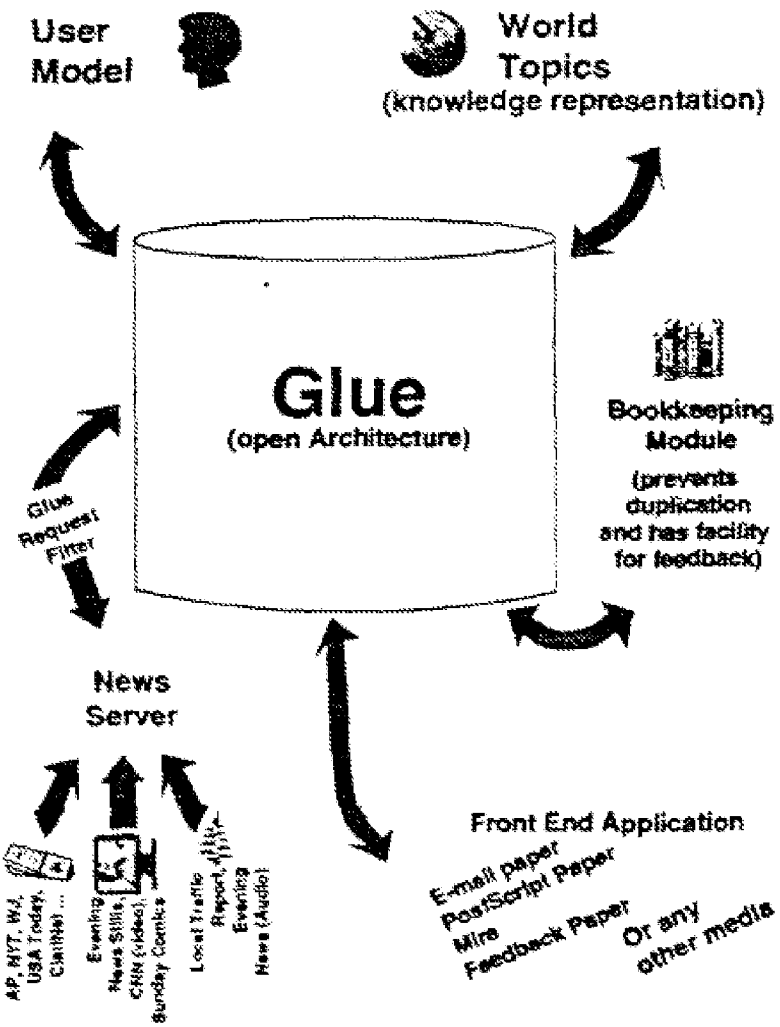
CLAIM 63

A computer readable medium encoded with one or more computer programs for enabling acquisition and review of a body of information, wherein the body of information includes a plurality of segments, each segment representing a defined set of information in the body of information, comprising:

Chesnais discloses a computer readable medium encoded with one or more computer programs for enabling acquisition and review of a body of information, wherein the body of

information includes a plurality of segments, each segment representing a defined set of information in the body of information (*e.g.*, "Fishwrap is an experimental electronic newspaper system available at MIT." (p. 275); "The Fishwrap design readily accepts traditional news wire stories and direct contributions from the community." (*Id.*); "All items coming into the system are analyzed for geographic and topical relevancy." (*Id.*) (emphasis added); "Access to Fishwrap's personalized news system appears as a World Wide Web (WWW) hypertext link" (*Id.*); "[W]ithin Fishwrap an article begins when it appears on any incoming data stream. Each data stream has its own supplier program which monitors incoming traffic. Articles come to Fishwrap in many formats: over satellite, radio frequencies, email, and phone line. Each supplier program does three things: First it translates all news items into an internal, wire-independent representation using Dtype [3] expandable data structure. Second the supplier adds a signature to each item. The signature represents an inference made from the data. Finally each article is supplied to the Fishwrap news database server." (p. 277) (emphasis added);[13] "A Fishwrap reader starts with their edition's table of contents, then focuses on a particular news topic and, ultimately, articles that are illustrated with graphics and audio." (p. 276).) Further as shown in Fig. 6 (reproduced below) the "News Server" receives many different types of data, including news wire feeds, evening news stills and video, and audio files. (Fig. 6, at 278). As described above, each of these different data items represent distinct segments that Fishwrap analyzes and creates a "signature" for.

[13] As shown in this quotation, Chesnais uses the word "article" in some aspects to refer to "all news items," not just news items that are articles. Further, references in quotes to Chesnais in the form of [number] appear this way in the Chesnais publication and refer to the references listed at the end of the article.



The Fishwrap electronic newspaper system includes multiple servers that contain computer readable medium comprising instructions for performing the functions disclosed by Chesnais (*e.g.,* "Glue provides a standard 'plug and play' set of tools for servers, knowledge representations modules, user profiling systems, and presentation modules." (p. 278)). Further, Chesnais also describes multiple modules interacting as part of Glue, including the News Server acquiring the news items (pp. 278-79), the supplier programs adding signatures (pp. 277 & 278) and the Front End Application rendering presentation to a user (p. 277). Certain module names are shown in boldface in Fig. 7 (p. 278).

instructions for acquiring data representing the body of information;

Chesnais discloses instructions for acquiring data representing the body of information (*e.g.*, "The Fishwrap design readily accepts traditional news wire stories and direct contributions from the community." (p. 275); "[W]ithin Fishwrap an article begins when it appears on any

incoming data stream. Each data stream has its own supplier program which monitors incoming traffic. Articles come to Fishwrap in many formats: over satellite, radio frequencies, email, and phone line." (p. 277); "*Suppliers and Servers* – Fishwrap receives news from a variety of sources and formats. The traditional news wires (Associated Press, Reuters, Knight-Ridder/Tribune, and BPI Entertainment all are providing their news feeds to Fishwrap) come in ANPA [7] format. Fishwrap also receives submissions via electronic mail and a number of 'homebrew' formats'" (p. 278)). Further, as shown above with respect to Fig. 6, the "NEWS SERVER" acquires information from a variety of sources, including text, video, images and audio. (*Id.*). Chesnais also explains that "[o]ur current Fishwrap news server uses a media-independent representation, that allows it to accept items with graphics, audio, text, and motion pictures. It is up to the presentation application to determine the appropriate medium to provide." (p. 279.) As exemplified by the above citations, Chesnais discloses acquiring a variety of different types of data that make up a body of information.

instructions for storing the acquired data;

Chesnais discloses instructions for storing the acquired data, including for example news wire stories, photos and audio files in databases. *See e.g.*, Chesnais at p. 277 ("[W]ithin Fishwrap an article begins when it appears on any incoming data stream. Each data stream has its own supplier program which monitors incoming traffic. . . . Finally each article is suplied to the Fishwrap news database server [4] where it will remain for the next 48 hours."); and Chesnais at p. 278 ("Fishwrap also checks its photo and audio databases to see if there are photos and sound recordings that match the story."); *see also id.* at Fig. 6. Thus, Chesnais describes that it stores all incoming items.

instructions for generating a display of a first segment of the body of information from data that is part of the stored data;

Chesnais discloses instructions for generating a display of a first segment of the body of information from data that is part of the stored data. For example, it discloses generating a display of an article. *See e.g.,* Chesnais at 277 (e.g., "When a reader generates a newspaper through Fishwrap, an article is retrieved if it matches one of the reader's global topics of interest. . . .[and an "article is then rendered by the front end application"); *see also* Figs. 2 and 13 (reproduced below). Chesnais further explains that it uses a web browser to provide the display. *See e.g.*, Chesnais at p. 275 ("World Wide Web browser access allows for easy traversing of the

information space (see Figure 2).”). Chesnais further explains how the user navigates to display an article—“[a] Fishwrap reader starts with their edition’s table of contents, then focuses on a particular news topic and, ultimately, articles that are illustrated with graphics and audio.” Chesnais at p. 276. Figs. 2 and 13, reproduced below, further illustrate how a user of Fishwrap can navigate to a particular news item, such as the article “New Evidence About Bombing Suspect Emerges,” which represents an example of the display of a first segment generated from the stored data. Further, Fig. 7 shows the “appRender” module that renders the articles (p. 278). Thus, Chesnais discloses that Fishwrap has instructions to display the aforementioned fist segment.

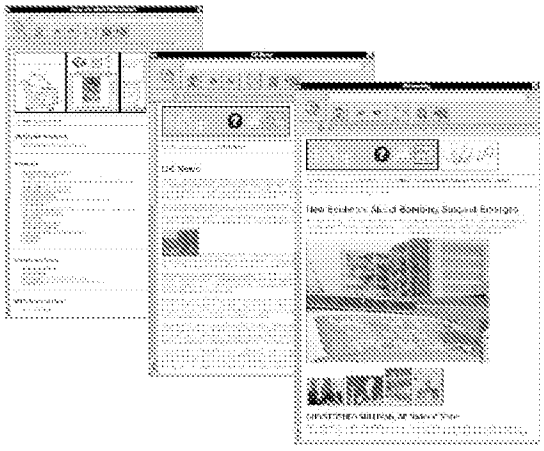


Fig. 2. A Fishwrap reader starts with their edition's table of contents, then focuses on a particular news topic and, ultimately, articles that are illustrated with graphics and audio.

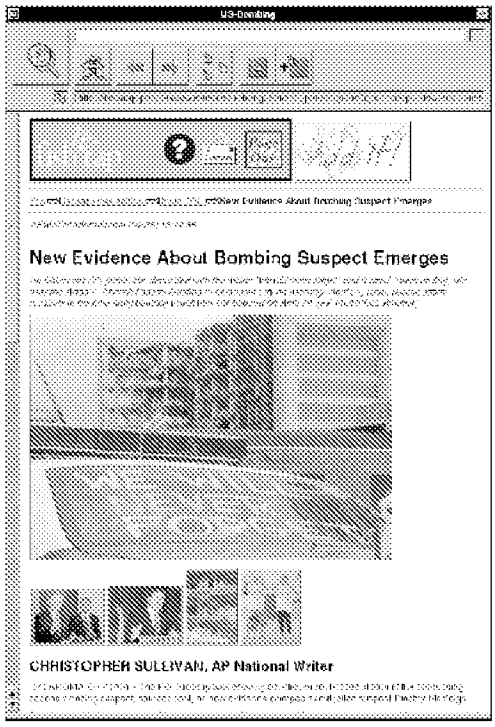


Fig. 13. An article illustrated with photographs.

Chesnais at FIGS. 2 and 13

instructions for comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related; and

Chesnais discloses instructions for comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related. As explained below, Chesnais discloses that all incoming items are provided with a signature,

which is used for searching, and that when an article is rendered Fishwrap also searches the photo and audio databases for items that "match the story" (*i.e.*, related items). *See e.g.*, Chesnais at 277 ("When a reader generates a newspaper through Fishwrap . . . . The article is then rendered by the front end application with hints given by the signatures. Fishwrap also checks its photo and audio databases to see if there are photos and sound recordings that match the story.") (emphasis added); and Chesnais at p. 281 ("One blind student appreciated the . . . audio segments for illustrations."). As discussed in more detail below, Chesnais discloses the "comparing" as identifying "photos and sound recordings that match the story." Chesnais makes this possible because, as addressed immediately below, the Fishwrap system stores the incoming items (*e.g.*, stories, audio files, and photos) with "signatures" ("data representing" a segment).

For example, Chesnais explains that the "signatures," which are derived from the incoming data are applied to all items coming into the system. Chesnais at p. 275 ("All items coming into the system are analyzed for geographic and topical relevancy."). These signatures are created along with a particular data structure ("Dtype")[14] and provides "inferences" about the item:

> within Fishwrap an article begins when it appears on any incoming data stream. Each data stream has its own supplier program which monitors incoming traffic. . . . . First it translates all news items into an internal, wire-independent representation using Dtype [3] expandable data structure. Second the supplier adds a signature to each item. The signature represents an inference made from the data.
>
> Chesnais at p. 277.

Further, as shown in Fig. 9 of Chesnais (reproduced below), the signature process (which adds the content labeled 1 and 3 to the item) provides additional data representing the item (i.e., an inference made from the data), such as a headline ("Survivors of Crash Victim Sue USAir"), a "slugword," and a "summary."

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[14] Note that the Dtype data structure is described in Chesnais by example, but also by citation to reference [3] Abramson, Nathan S. *The dtype library or, how to write a server in less time that it takes to read this manual*, Technical Report, Electronic Publishing Group, MIT Media Laboratory, Cambridge, MA, 1992.

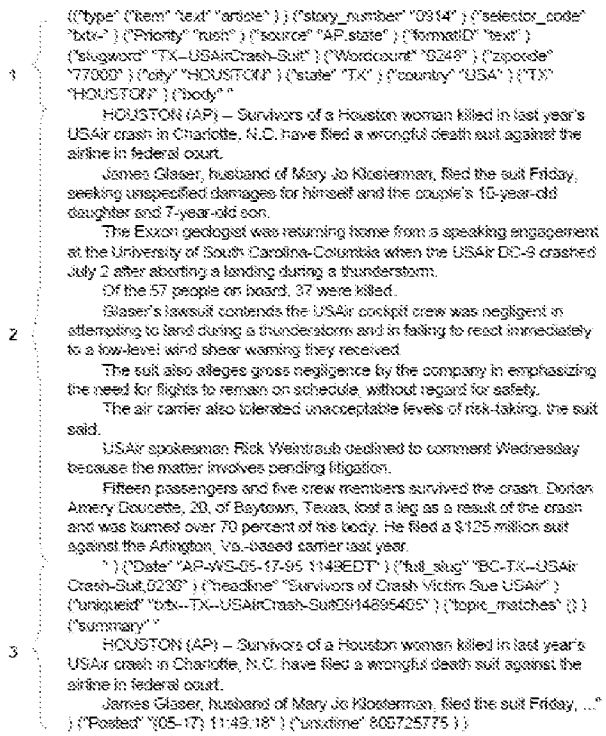

Fig. 9. An AP article in a Dype structure. The first and third portion is material derived from the ANPA format coding other information added to the article by the signature process.

Chesnais at p. 279.

Chesnais further explains that the signatures are used in searches ("because they significantly speed up the searches") used to build a paper to present to the user, which presentation, as described above and shown for example by the photo thumbnails in Figs. 2 and 13, also includes "photos and sound recordings that match the story." *See e.g.,* Chesnais at Figs. 2 and 13 and p. 277 (matching) & 279 (using signatures to "significantly speed up the searches."). Thus, the signatures, which include data representing the segments (*i.e.*, a headline and a summary like those shown in the third portion of Fig. 9), include predetermined criteria used to determine whether particular segments are related.

Chesnais discloses "comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related." However, even if the Examiner determines that Chesnais did not expressly disclose comparing signatures of two items to determine if they are related, it would have been obvious to one of ordinary skill in the art to perform the recited comparison step based on Chesnais's disclosure in view of the AP Stylebook.

Chesnais references the *Wire Service Transmission Guidelines* Special Report No. 84-2, from the American Newspaper Publishers Association (ANPA). Chesnais at p. 278 & 282. Chesnais states that the signature added to an item is "derived from the ANPA format coding." Chesnais, p. 279. As shown in Fig. 9, the signature of an item included, for example, a "slugword" field with keywords. In short, the ANPA format coding for stories and photo captions from the AP provided the same type of information. Thus, to the extent it is not inherently disclosed, it would have been obvious to one of ordinary skill in the art that Chesnais's disclosure of "signatures" (described above) and checking Fishwrap's databases for "photos . . . that match the story" would include comparing the signature for a news story with the signatures for photos, including the text captions, (or audio files) to identify photos that are related to the news story using predetermined criteria, such as matching one or more fields from the signatures (e.g., a slugword, headline, or summary). In fact, this is one of the well-known functions that databases are designed to perform, using coded fields to make identification of information stored in the database easier. Comparing signatures of items to determine whether two items are related is applying a known technique to a known method to yield predictable results.

instructions for generating a display of a portion of, or a representation of, a second segment of the body of information from data that is part of the stored data, wherein the display of the portion or representation of the second segment is generated in response to the display of a first segment to which the second segment is related.

Chesnais discloses instructions for generating a display of a portion of, or a representation of, a second segment of the body of information from data that is part of the stored data, wherein the display of the portion or representation of the second segment is generated in response to the display of a first segment to which the second segment is related. Specifically, Chesnais discloses that the Fishwrap system, in the following order, (1) renders an article, (2) then checks for photos or audio that match the article, and (3) then displays the related photos or audio. *See e.g.*, Chesnais at p. 277 ("The article is then rendered by the front end application with hints given by the signatures. Fishwrap also checks its photo and audio databases to see if there are photos and sound recordings that match the story. For most Fishwrap readers, articles are rendered in hypertext markup language (HTML) for a WWW browser."; and Chesnais at p. 281 ("One blind student appreciated the . . . audio segments for illustrations."). Chesnais further

explains "On Demand Publishing: Fishwrap's use of the WWW is different from existing servers. Rather than be an archive of documents, Fishwrap contructs [sic] its personalized news documents on the fly. Building documents on demand allows Fishwrap to provide the most recent news." (*Id.* at 280). Finally, as shown in Figs. 2 and 13 (reproduced below), Fishwrap presents a user with photos (thumbnails shown below) and audio (display of a portion or representation of a second segment) that "match" or are related to the article being displayed (the first segment).

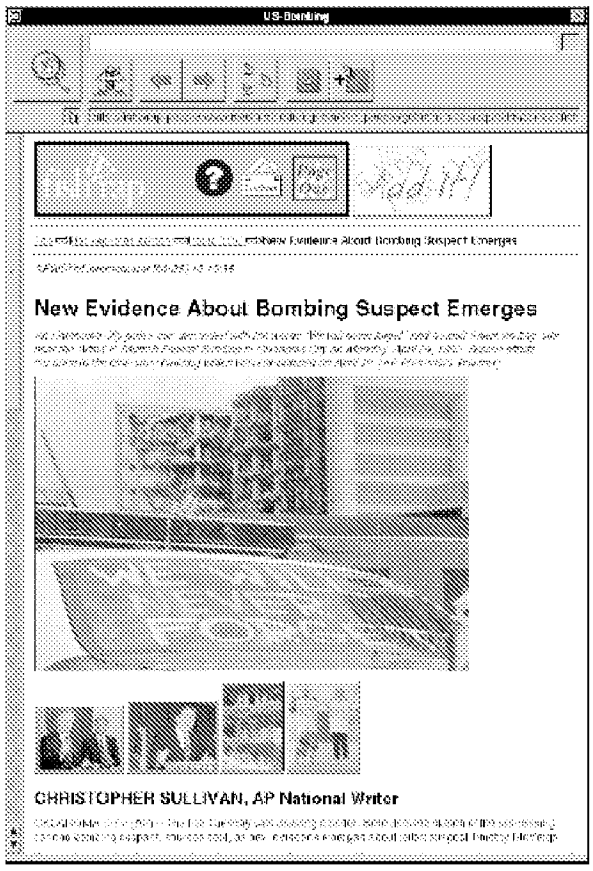

Fig. 13. An article illustrated with photographs.

CLAIM 64

A computer readable medium as in claim 63, further comprising instructions for causing the display of the portion or representation of the second segment to occur substantially coextensive in time with the display of the related first segment.

Chesnais discloses instructions for causing the display of the portion or representation of the second segment to occur substantially coextensive in time with the display of the related first

segment (*e.g.,*."[i]f an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation."). Further, as shown in particular in Fig. 13 above, the display of the photos (thumbnails) (a second segment) is substantially coextensive in time with the display of the article.Claim 65

> **A computer readable medium as in claim 63, wherein: the instructions for acquiring data representing the body of information further comprise instructions for acquiring audiovisual data representing at least a portion of the body of information, wherein the first and second segments are represented by audiovisual data; and**

Chesnais discloses instructions for acquiring audiovisual data representing at least a portion of the body of information, wherein the first and second segments are represented by audiovisual data because as explained and shown above, the first segment may include images and the "related" segments include photos and/or audio. As explained and shown above, the first segment may include images and the "related" segments include photos and/or audio. *See* '507 patent at 9:47-60 (audiovisual data includes "audio and/or video data [which includes images]"). Further, Chesnais explains that the data used to build the Fishwrap newspaper comes in all forms, including video and graphics files. (p. 278) ("Our current Fishwrap news server uses a media-independent representation, that allows it to accept items with graphics, audio, text, and motion pictures.") Finally, as shown in Fig. 13, both the underlying article and the photos that are displayed include images. See also Chesnais Fig. 6 (News Server acquires multiple types of data, including text, video, images and audio). Thus Chesnais discloses that Fishwrap has instructions for acquiring audiovisual data.

> **the instructions for generating a display of a first segment of the body of information further comprise instructions for generating an audiovisual display of the first segment.**

Chesnais discloses instructions for generating an audiovisual display of the first segment. For example, Figs. 2 and 13 of Chesnais plainly show that the underlying article includes audiovisual data (e.g., images). '507 patent at 9:50-56 ("video data . . . includ[es] images" and "'audiovisual data' refers to data that includes audio and/or video data, and may include text data"). This is possible because Fishwrap is able to "accept items with graphics, audio, text and motion pictures." (p. 279.) Thus, Chesnais discloses that Fishwrap has instructions for generating an audiovisual display.

CLAIM 66

A computer readable medium as in claim 65, further comprising instructions for identifying the selection of a second segment for which a portion or representation is being displayed, wherein selection of such second segment causes an audiovisual display of the selected second segment to be produced.

Chesnais discloses instructions for identifying the selection of a second segment for which a portion or representation is being displayed, wherein selection of such second segment causes an audiovisual display of the selected second segment to be produced. For example, Chesnais explains that it uses a web browser and, as shown in Fig. 2, a user may select an article from a list of related articles and have that article displayed or select a photo (e.g., thumbnail). *See e.g.,* Fig. 2; at 276 ("If an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation"; "In addition, each article displays the news topics which it matches. This enables the readers to directly view similar articles.") Chesnais also explains that the use of HTML format allows the user to navigate through the presentation. *See* Chesnais at 279 ("Fishwrap uses hypertext as means of structuring the presentation. It allows the individual to follow links along the Fishwrap table of contents akin to the way one would flip through pages of a traditional newspaper. HTML allows us to specify some of the visual attributes of the documents we present to the individual. HTML also provides a uniform mechanism for accepting input from the reader.") (emphasis added). Thus, Chesnais discloses the ability to accept a user selection of a representation or portion of the second segment (thumbnail) and display an audiovisual (e.g., images, graphics, etc.) of that segment. Alternatively, it is inherent in Chesnais's disclosure of using a web browser to render the Fishwrap paper to a user that the user could select a thumbnail to display the photo. As exemplified by the above citations, Chesnais discloses that Fishwrap includes instructions for identifying a second segment for which a portion or representation is displayed.

CLAIM 67

A computer readable medium as in claim 63, wherein: the instructions for acquiring data representing the body of information further comprise instructions for acquiring audiovisual data representing at least a portion of the body of information;

Chesnais discloses instructions for acquiring audiovisual data representing at least a portion of the body of information because as explained and shown above, the first segment may

include images and the "related" segments include photos and/or audio. As explained and shown above, the first segment may include images and the "related" segments include photos and/or audio. *See* '507 patent at 9:47-60 (audiovisual data includes "audio and/or video data [which includes images]"). Further, Chesnais explains that the data used to build the Fishwrap newspaper comes in all forms, including video and graphics files. Chesnais, p. 278 ("Our current Fishwrap news server uses a media-independent representation, that allows it to accept items with graphics, audio, text, and motion pictures.") Finally, as shown in Fig. 13, both the underlying article and the photos that are displayed include images. See also Chesnais Fig. 6 (News Server acquires multiple types of data, including text, video, images and audio).

the instructions for generating a display of a first segment of the body of information further comprise instructions for generating an audiovisual display of the first segment; and

Chesnais discloses instructions for generating an audiovisual display of the first segment. As explained immediately above, the articles in Chesnais may include a variety of data types, including graphics, photos and audio data. *See e.g.*, Fig. 2 and Chesnais at 276 ("If an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation."). Fig. 7 shows the "appRender" module that renders the articles (p. 278). Thus, Chesnais discloses that Fishwrap has instructions for generating an audiovisual display.

the instructions for generating a display of a portion of, or a representation of, a second segment of the body of information further comprise instructions for generating a text display of the portion or representation of the second segment.

Chesnais discloses instructions for generating a text display of the portion or representation of the second segment. For example, as shown in Fig. 2 a user may select an article from a list of related articles and have that article displayed. *See e.g.,* Fig. 2 and Chesnais at 276 ("If an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation.") Also, Chesnais discloses displaying news topics that match each article so that readers may directly view similar articles. *See e.g.,* Chesnais at 276 ("In addition, each article displays the news topics which it matches. This enables the readers to directly view similar articles.") Fig. 7 shows the "appRender" module that

renders the articles (p. 278). Thus, Chesnais discloses that Fishwrap has instructions for generating a text display.

CLAIM 70

> **A computer readable medium as in claim 63, further comprising instructions for identifying the subject matter content of a segment of the body of information, wherein the instructions for comparing further comprise instructions for determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined.**

Chesnais discloses instructions for identifying the subject matter content of a segment of the body of information, wherein the instructions for comparing further comprise instructions for determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined. For example, as discussed above in connection with claim 20 (comparing step), in Chesnais all incoming items are provided with a signature. As shown in Fig. 9 of Chesnais, the signature process (which adds the content labeled 1 and 3 to the item) provides additional data regarding the subject matter of the underlying item, such as a headline ("Survivors of Crash Victim Sue USAir"), a "slugword" that contains keywords, and a "summary."

To the extent it is not inherently disclosed, it would have been obvious to one of ordinary skill in the art that Chesnais's disclosure of "signatures" (described above) and checking Fishwrap's databases for "photos . . . that match the story" would include comparing the signature for a news story with the signatures for photos, including the text captions, (or audio files) to identify photos that are related to the news story by determining a degree of similarity between the news story and photos using predefined degree of similarity, such as matching one or more fields from the signatures (e.g., a slugword, headline, or summary) in view of the AP Stylebook's disclosure of the coding requirement for news wire items. In fact, this is one of the well-known functions that databases are designed to perform, using coded fields to make identification of information stored in the database easier. Comparing signatures of items to determine whether two items are related is applying a known technique to a known method to yield predictable results.

CLAIM 74

A computer readable medium as in claim 63, wherein the instructions for acquiring data further comprise instructions for acquiring computer-readable data files over a computer network from an information providing site that is part of that network.

Chesnais discloses instructions for acquiring computer-readable data files over a computer network from an information providing site that is part of that network. As shown for example in Fig. 6, the News Server in Chesnais receives a variety of file types. FIG. 6 also shows that the News Server receives files from the ClariNet online news service, which is one of the information sources identified in the '507 patent at 10:1-3. Chesnais further explains that "[t]he traditional news wires (Associated Press, Reuters, Knight-Ridder/Tribune, and BPI Entertainment all are providing their news feeds to Fishwrap) come in ANPA [7] format. Fishwrap also receives submissions via electronic mail and a number of 'homebrew' formats." Thus, Chesnais discloses multiple types of computer-readable files being acquired by Fishwrap, and discloses that Fishwrap has instructions for acquiring computer readable data files over a computer network.

CLAIM 77

A computer readable medium as in claim 63, further comprising instructions for identifying an instruction from a user to begin displaying at least some of the body of information, wherein the display of a first segment is begun in response to the user instruction.

Chesnais discloses instructions for identifying an instruction from a user to begin displaying at least some of the body of information, wherein the display of a first segment is begun in response to the user instruction. because, for example, using Chesnais' web brower auser may select an article from a list of related articles and have that article displayed. *See e.g.,* Fig. 2 and Chesnais at 276 ("If an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation."). Chesnais also explains that the use of HTML format allows the user to navigate through the presentation. *See* Chesnais at 279 ("Fishwrap uses hypertext as means of structuring the presentation. It allows the individual to follow links along the Fishwrap table of contents akin to the way one would flip through pages of a traditional newspaper. HTML allows us to specify some of the visual attributes of the documents we present to the individual. HTML also provides a uniform

mechanism for accepting input from the reader.")(emphasis added). As exemplified by the above citations, Chesnais discloses that Fishwrap includes instructions for identifying an instruction from a user to begin displaying a first segment.

CLAIM 80

A computer readable medium as in claim 63, wherein at least some of the acquired data is digital data, the instructions for acquiring data further comprising instructions for acquiring digital data.

Chesnais discloses that at least some of the acquired data is digital data, the step of acquiring data further comprising the step of acquiring digital data. For example, Chesnais discloses that incoming items "come to Fishwrap in many formats: over satellite, radio frequencies, email, and phone line." Email is necessarily digital data. Moreover, the news wire services typically provided the information in digital form. See OTH-B (*e.g.*, "The product, called Newshedge […] gives users access to "live" news from […] Dow Jones News Service. […] Newshedge funnels downloaded data into a stream.") Moreover, the Patent Owner admitted that text from news wire services is digital data. *See, e.g.*, '507 at 12:6-8 ("Text data acquired from online text sources, for example, is acquired in digital form and so can be used directly in such processing.") FIG. 6 of Chesnais shows that the News Server receives files from the ClariNet online text source (news service), which is one of the information sources identified in the '507 patent at 10:1-3. Thus Chesnais discloses that Fishwrap has instructions for acquiring digital data.

CLAIM 81

A computer readable medium as in claim 63, wherein at least some of the acquired data is analog data, the instructions for acquiring data further comprising instructions for acquiring analog data.

Chesnais discloses that at least some of the acquired data is analog data, the instruction for acquiring data further comprising instructions for acquiring analog data. For example, Chesnais discloses information "come[s] to Fishwrap in many formats: over satellite, radio frequencies, email, and phone line." Radio frequency reception from the timeframe in which Chesnais was published would include the acquisition of analog data. Thus Chesnais discloses that Fishwrap has instructions for acquiring analog data.

E. CHESNAIS IN VIEW OF AP STYLEBOOK, FURTHER IN VIEW OF WIRE SERVICE TRANSMISSION GUIDELINES AND FURTHER IN VIEW OF PATENT OWNER ADMISSIONS RENDERS OBVIOUS CLAIMS 28 AND 71 OF THE '507 PATENT

Please see the attached Exhibit CC-E presenting claim charts comparing Chesnais in view of the AP Stylebook, the WST Guidelines, and further in view of Patent Owner Admissions with claims 28 and 71 of the '507 patent.

REASONS TO COMBINE

Chesnais is directed toward an electronic newspaper that builds a presentation on the fly and combines for users a variety of data types (e.g., newswire stories, photos and audio, video etc.) based on their similarity. Chesnais, p. 275. Chesnais references the *Wire Service Transmission Guidelines* Special Report No. 84-2, from the American Newspaper Publishers Association (ANPA). Chesnais at p. 278 & 282. These guidelines specify the content and format of headers applied to newswire items, including a field for keywords. WST Guidelines at 1 & 2. The AP used these headers. *Id.* at 1. The AP Stylebook discloses coding requirements for newswire transmission of news items, including photos. AP Stylebook, p. 293-302. Further, the '507 patent is also directed toward identifying and displaying news stories that are related to a television news program. '507 patent at Abstract. Chesnais and the '507 patent both describe comparing data representing news items, including text news items. The '507 patent discloses that relevance feedback was well known for use in determining the similarities between two sets of information, particularly text (*e.g.*, "The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). '507 patent at 28:55-29:3.[15]

A person of ordinary skill in the art, looking for a method of determining similarities between two information sources, particularly two text sources, such as the articles and other content disclosed in Chesnais, would have been motivated to use the relevance feedback method

[15] Patent owner also admits that the prior art incorporated by reference into the '507 patent touts the benefits of using relevance feedback. *See, e.g.,* "Improving Retrieval Performance by Relevance Feedback," Salton, G., Journal of the American Society for Information Science, vol. 41, no. 4, pp. 288-297 ("Salton"); *see also* "The Effect of Adding Relevance Information in a Relevance Feedback Environment," Buckley, C., et al., Proceedings of 17th International Conference on Research and Development in Information Retrieval, DIGIR 94, Springer-verlag (Germany), 1994, pp. 292-300 ("Buckley").

of the prior art as discussed in the '507 patent. Thus, it would have been obvious to use a relevance feedback method to compare information in Chesnais since this reference and the admissions relate to well-known methods of comparing information. Moreover, the combination of Chesnais, the AP Stylebook, the WST Guidelines, and the admissions by the Patent Owner yields a predictable result, and one of ordinary skill in the art would clearly be capable of combining these systems to achieve the expected result of determining similarities between two information sources.

CLAIM 28

A method as in claim 27, wherein the step of determining the similarity of the subject matter of segments further comprises the step of performing a relevance feedback method.

The '507 patent includes admissions that the use of relevance feedback methods to compare text was well known in the art. *See e.g.*, '507 patent at 28:55-29:3 ("The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). As explained above, these admissions can be used in combination with prior patents and printed publications to establish an SNQ and as a basis reject the claims. *See*: MPEP § 2617(III). Per MPEP § 2617, admissions, which include admitted prior art, can also be used during the examination phase of reexamination, *i.e.*, in claim rejections. Section 2617 refers the reader to MPEP § 2258. MPEP § 2258(I)(F)(2) states, "In *Seiko*, [*Ex parte Seiko Koko Kabushiki Kaisha*, 225 USPQ 1260 (Bd. Pat. App. & Inter. 2984)] the Board relied on *In re Nomiya*, 509 F.2d 566, 184 USPQ 607 (CCPA 1975) holding an admission of prior art in the specification of the parent undergoing reexamination is considered prior art which may be considered as evidence of obviousness under 35 U.S.C. 103."[16]

CLAIM 71

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[16] Moreover, the '507 Patent also discloses that the degree of similarity can be determined using any appropriate method, thus further confirming that relevance feedback does not provide a basis to distinguish the claimed invention. As such, Bender either alone or in combination with the Patent Owner's admissions and/or the incorporated Salton and Buckley references renders claim 28 obvious.

A computer readable medium as in claim 70, wherein the instructions for determining the similarity of the subject matter of segments further comprise instructions for performing a relevance feedback method.

Claim 71 depends from claim 70 and recites the same additional limitation as in claim 28 that the degree of similarity is determined by "a relevance feedback method." Thus, for the same reasons explained above in connection with claim 28, claim 70 would have been obvious in view of Chesnais or Bender, alone or in combination with the Patent Owner's admissions (regarding the use of relevance feedback as well known in the art for comparing text segments).[17]

F. CHESNAIS IN VIEW OF BENDER RENDERS OBVIOUS CLAIMS 20-24, 27, 31, 34, 37, 38, 63-67, 70, 74, 77, 80, AND 81 OF THE '507 PATENT

Please see the attached Exhibit CC-F presenting claim charts comparing Chesnais in view of Bender with claims 20-24, 27, 31, 34, 37, 38, 63-67, 70, 74, 77, 80, and 81 of the '507 patent.

REASONS TO COMBINE

Chesnais is directed toward an electronic newspaper that builds a presentation on the fly and combines for users a variety of data types (e.g., newswire stories, photos and audio, video etc.) based on their similarity. Chesnais, p. 275. Similarly, Bender is directed to presenting news broadcasts and related news articles to users. Bender, p. 81. Both the Network Plus system of Bender and the Fishwrap system of Chesnais were developed at the MIT Media Laboratory, and Dr. Chesnais is a co-author of both publications. A person of ordinary skill in the art, looking for a method of determining similarities between two information sources such as the articles and other content disclosed in Chesnais would have been motivated to use the keyword matching scheme of Bender. Because Chesnais discloses that each item in the system is assigned a "signature" that includes keywords and discloses identifying photos and audio that "match" a news article, and Bender discloses using a keyword matching scheme to "match" news stories to a broadcast, one of skill in the art would have been motivated to combine

[17] Moreover, the '507 Patent also discloses that the degree of similarity can be determined using any appropriate method, thus further confirming that relevance feedback does not provide a basis to distinguish the claimed invention. As such, Bender either alone or in combination with the Patent Owner's admissions and/or the incorporated Salton and Buckley references renders claim 71 obvious.

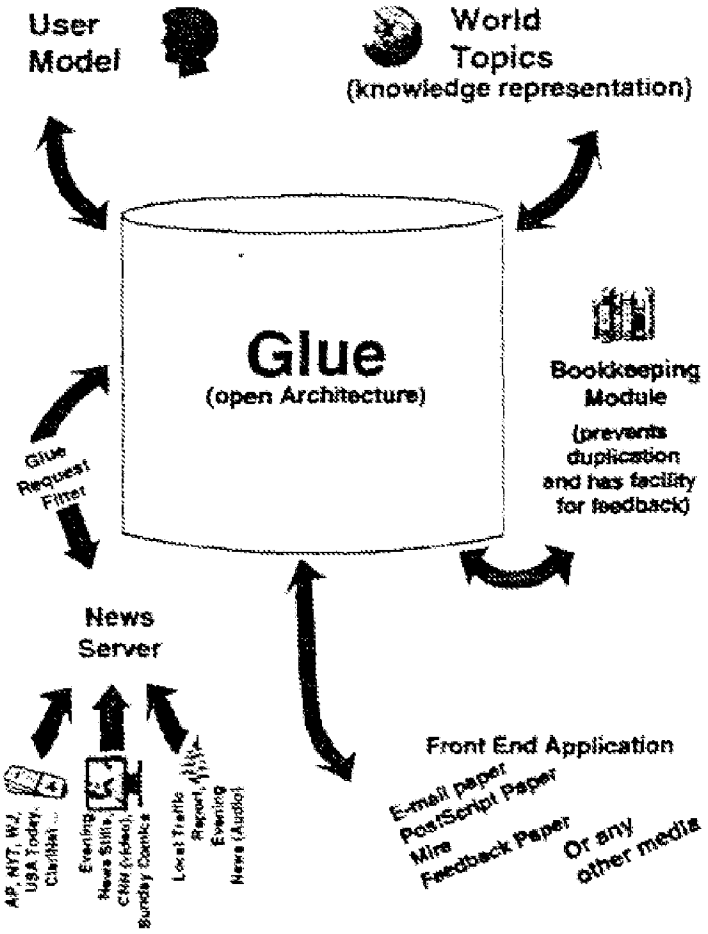
Bender's keyword matching scheme with the disclosure of Chesnais to identify matching photos and sound recordings. Bender discloses that the Network Plus system's use of a threshold of four matching keywords to identify related items was "computationally inexpensive" and "worked well." Bender, p. 82. Thus, it would have been obvious to use the keyword matching scheme of Bender to compare information in Chesnais because the "signatures" contain keywords and the keyword matching scheme of Bender was "computationally inexpensive" yet also "worked well." Moreover, the combination of Chesnais and Bender yields a predictable result, and one of ordinary skill in the art would clearly be capable of combining these systems to achieve the expected result of determining similarities between two information sources.

CLAIM 20

A method for acquiring and reviewing a body of information, wherein the body of information includes a plurality of segments, each segment representing a defined set of information in the body of information, the method comprising the steps of:

Chesnais discloses a method for acquiring and reviewing a body of information, wherein the body of information includes a plurality of segments, each segment representing a defined set of information in the body of information (*e.g.*, "Fishwrap is an experimental electronic newspaper system available at MIT." (p. 275); "The Fishwrap design readily accepts traditional news wire stories and direct contributions from the community." (*Id.*); "All items coming into the system are analyzed for geographic and topical relevancy." (*Id.*) (emphasis added); "Access to Fishwrap's personalized news system appears as a World Wide Web (WWW) hypertext link" (*Id.*); "[W]ithin Fishwrap an article begins when it appears on any incoming data stream. Each data stream has its own supplier program which monitors incoming traffic. Articles come to Fishwrap in many formats: over satellite, radio frequencies, email, and phone line. Each supplier program does three things: First it translates all news items into an internal, wire-independent representation using Dtype [3] expandable data structure. Second the supplier adds a signature to each item. The signature represents an inference made from the data. Finally each

article is supplied to the Fishwrap news database server." (p. 277) (emphasis added);[18] "A Fishwrap reader starts with their edition's table of contents, then focuses on a particular news topic and, ultimately, articles that are illustrated with graphics and audio." (p. 276).) Further as shown in Fig. 6 (reproduced below) the "News Server" receives many different types of data, including news wire feeds, evening news stills and video, and audio files. (Fig. 6, at 278). As described above, each of these different data items represent distinct segments that Fishwrap analyzes and creates a "signature" for.



acquiring data representing the body of information;

[18] As shown in this quotation, Chesnais uses the word "article" in some aspects to refer to "all news items," not just news items that are articles. Further, references in quotes to Chesnais in the form of [number] appear this way in the Chesnais publication and refer to the references listed at the end of the article.

Chesnais discloses acquiring data representing the body of information (*e.g.*, "The Fishwrap design readily accepts traditional news wire stories and direct contributions from the community." (p. 275); "[W]ithin Fishwrap an article begins when it appears on any incoming data stream. Each data stream has its own supplier program which monitors incoming traffic. Articles come to Fishwrap in many formats: over satellite, radio frequencies, email, and phone line." (p. 277); "*Suppliers and Servers* – Fishwrap receives news from a variety of sources and formats. The traditional news wires (Associated Press, Reuters, Knight-Ridder/Tribune, and BPI Entertainment all are providing their news feeds to Fishwrap) come in ANPA [7] format. Fishwrap also receives submissions via electronic mail and a number of 'homebrew' formats'" (p. 278)). Further, as shown above with respect to Fig. 6, the "NEWS SERVER" acquires information from a variety of sources, including text, video, images and audio. (*Id.*). Chesnais also explains that "[o]ur current Fishwrap news server uses a media-independent representation, that allows it to accept items with graphics, audio, text, and motion pictures. It is up to the presentation application to determine the appropriate medium to provide." (p. 279.) As exemplified by the above citations, Chesnais discloses acquiring a variety of different types of data that make up a body of information.

storing the acquired data;

Chesnais discloses storing the acquired data, including for example news wire stories, photos and audio files in databases. *See e.g.*, Chesnais at p. 277 ("[W]ithin Fishwrap an article begins when it appears on any incoming data stream. Each data stream has its own supplier program which monitors incoming traffic. . . . Finally each article is suplied to the Fishwrap news database server [4] where it will remain for the next 48 hours."); and Chesnais at p. 278 ("Fishwrap also checks its photo and audio databases to see if there are photos and sound recordings that match the story."); *see also id.* at Fig. 6. Thus, Chesnais describes that it stores all incoming items.

generating a display of a first segment of the body of information from data that is part of the stored data;

Chesnais discloses generating a display of a first segment of the body of information from data that is part of the stored data. For example, it discloses generating a display of an article. *See e.g.,* Chesnais at 277 (e.g., "When a reader generates a newspaper through Fishwrap, an article is retrieved if it matches one of the reader's global topics of interest. . . .[and an "article

is then rendered by the front end application"); *see also* Figs. 2 and 13 (reproduced below). Chesnais further explains that it uses a web browser to provide the display. *See e.g.*, Chesnais at p. 275 ("World Wide Web browser access allows for easy traversing of the information space (see Figure 2)."). Chesnais further explains how the user navigates to display an article—"[a] Fishwrap reader starts with their edition's table of contents, then focuses on a particular news topic and, ultimately, articles that are illustrated with graphics and audio." Chesnais at p. 276. Figs. 2 and 13, reproduced below, further illustrate how a user of Fishwrap can navigate to a particular news item, such as the article "New Evidence About Bombing Suspect Emerges," which represents an example of the display of a first segment generated from the stored data.

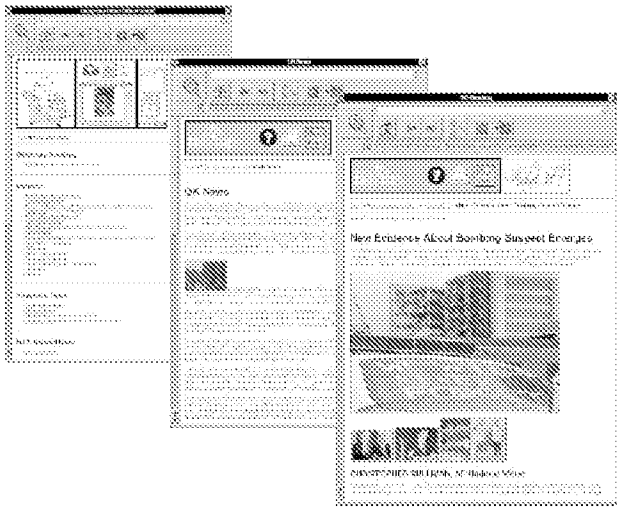


Fig. 2. A Fishwrap reader starts with their edition's table of contents, then focuses on a particular news topic and, ultimately, articles that are illustrated with graphics and audio.

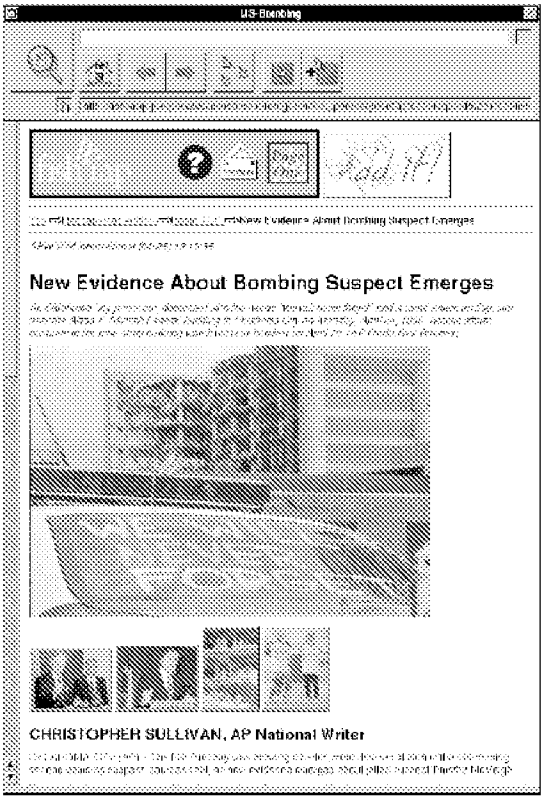


Fig. 13. An article illustrated with photographs.

Chesnais at FIGS. 2 and 13

comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related; and

Chesnais discloses comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according

to one or more predetermined criteria, the compared segments are related. As explained below, Chesnais discloses that all incoming items are provided with a signature, which is used for searching, and that when an article is rendered Fishwrap also searches the photo and audio databases for items that "match the story" (*i.e.*, related items). *See e.g.*, Chesnais at 277 ("When a reader generates a newspaper through Fishwrap . . . . The article is then rendered by the front end application with hints given by the signatures. Fishwrap also checks its photo and audio databases to see if there are photos and sound recordings that match the story.") (emphasis added); and Chesnais at p. 281 ("One blind student appreciated the . . . audio segments for illustrations."). As discussed in more detail below, Chesnais discloses the "comparing" as identifying "photos and sound recordings that match the story." Chesnais makes this possible because, as addressed immediately below, the Fishwrap system stores the incoming items (*e.g.*, stories, audio files, and photos) with "signatures" ("data representing" a segment).

For example, Chesnais explains that the "signatures," which are derived from the incoming data are applied to all items coming into the system. Chesnais at p. 275 ("All items coming into the system are analyzed for geographic and topical relevancy."). These signatures are created along with a particular data structure ("Dtype")[19] and provides "inferences" about the item:

> within Fishwrap an article begins when it appears on any incoming data stream. Each data stream has its own supplier program which monitors incoming traffic. . . . . First it translates all news items into an internal, wire-independent representation using Dtype [3] expandable data structure. Second the supplier adds a signature to each item. The signature represents an inference made from the data.
>
> Chesnais at p. 277.

Further, as shown in Fig. 9 of Chesnais (reproduced below), the signature process (which adds the content labeled 1 and 3 to the item) provides additional data representing the item (i.e., an

[19] Note that the Dtype data structure is described in Chesnais by example, but also by citation to reference [3] Abramson, Nathan S. *The dtype library or, how to write a server in less time that it takes to read this manual*, Technical Report, Electronic Publishing Group, MIT Media Laboratory, Cambridge, MA, 1992.

inference made from the data), such as a headline ("Survivors of Crash Victim Sue USAir"), a "slugword," and a "summary."

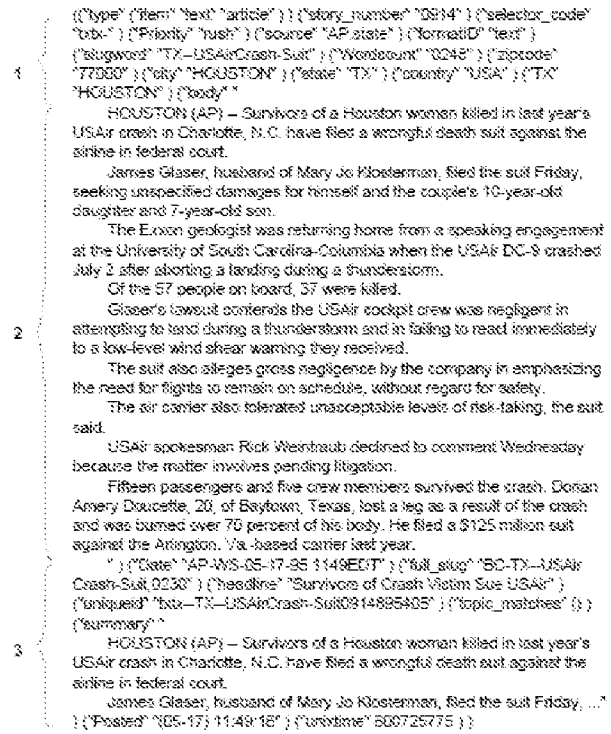


Fig. 9. An AP article in a Dtype structure. The first and third portion is material derived from the ANPA format coding other information added to the article by the signature process.

Chesnais at p. 279.

Chesnais further explains that the signatures are used in searches ("because they significantly speed up the searches") used to build a paper to present to the user, which presentation, as described above and shown for example by the photo thumbnails in Figs. 2 and 13, also includes "photos and sound recordings that match the story." *See e.g.,* Chesnais at Figs. 2 and 13 and p. 277 (matching) & 279 (using signatures to "significantly speed up the searches."). Thus, the signatures, which include data representing the segments (*i.e.*, a headline and a summary like those shown in the third portion of Fig. 9), include predetermined criteria used to determine whether particular segments are related.

Chesnais references the *Wire Service Transmission Guidelines* Special Report No. 84-2, from the American Newspaper Publishers Association (ANPA). Chesnais at p. 278 & 282. Chesnais states that the signature added to an item is "derived from the ANPA format coding." Chesnais, p. 279. As shown in Fig. 9, the signature of an item included a "slugword" field with

keywords. Therefore, one of ordinary skill in the art would understand that the signature for photos stored in the Fishwrap database included a slugword field containing keywords associated with the photos.

Chesnais discloses "comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related." However, even if the Examiner determined that Chesnais did not expressly or inherently disclose comparing signatures of two items to determine if they are related, it would have been obvious to one of ordinary skill in the art to perform the recited comparison step on Chesnais's signatures using the comparison technique disclosed in Bender. Bender discloses comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related. For example, Bender compares closed caption data representing a news broadcast (one segment) to news wire text stories (different segments) via keyword matching to determine, whether according to predetermined criteria (e.g., a threshold number of matched keywords), the segments are related. See *e.g.*, Bender at pp. 82-83 (describing keyword matching process) ("Network Plus is comprised of two procedural components. One gathers information prior to the broadcast. The other matches stories during the broadcast."(emphasis added); "The primary function of Network Plus is to correlate news wire stories and live broadcasts. . . . A keyword matching scheme was chosen, based upon empirical evidence that there exists a sufficient correspondence between words found in the transcript and words found in the wire service stories. If the number of words common to both the transcript and a trial story exceeded some threshold, the two were designated as related. . . . A threshold of four words worked well in this experiment. . .") (emphasis added). Bender further provides a specific example illustrating the process for comparing a news wire story about the nuclear accident at Chernobyl to a television broadcast on "ABC Nightly News" to determine they were related. *Id.* Thus, Bender discloses at least comparing the closed caption data for the news broadcast with the news wire text via keyword matching to determine whether according to a predetermined threshold for keyword matching (e.g., four common words), the broadcast and the news wire story are related.

One of skill in the art would have been motivated to combine Bender's keyword matching scheme with the disclosure of Chesnais to identify matching photos and sound recording at least because Chesnais discloses that all items in the Fishwrap system are assigned a "signature" that includes keywords, and further discloses identifying photos and audio files in its database that "match" a news article, and Bender discloses using a keyword matching scheme to "match" news stories to a broadcast. Thus, to the extent that Chesnais does not expressly or inherently disclose using predetermined criteria to "compar[e] data representing a segment of the body of information to data representing a different segment of the body of information to determine whether . . . the compared segments are related," using a predefined threshold for a number of keywords that match as disclosed in Bender would have been obvious to one of ordinary skill in the art based upon Chesnais in view of Bender.

generating a display of a portion of, or a representation of, a second segment of the body of information from data that is part of the stored data, wherein the display of the portion or representation of the second segment is generated in response to the display of a first segment to which the second segment is related.

Chesnais discloses generating a display of a portion of, or a representation of, a second segment of the body of information from data that is part of the stored data, wherein the display of the portion or representation of the second segment is generated in response to the display of a first segment to which the second segment is related. Specifically, Chesnais discloses that the Fishwrap system, in the following order, (1) renders an article, (2) then checks for photos or audio that match the article, and (3) then displays the related photos or audio. *See e.g.*, Chesnais at p. 277 ("The article is then rendered by the front end application with hints given by the signatures. Fishwrap also checks its photo and audio databases to see if there are photos and sound recordings that match the story. For most Fishwrap readers, articles are rendered in hypertext markup language (HTML) for a WWW browser."; and Chesnais at p. 281 ("One blind student appreciated the . . . audio segments for illustrations."). Chesnais further explains "On Demand Publishing: Fishwrap's use of the WWW is different from existing servers. Rather than be an archive of documents, Fishwrap contructs [sic] its personalized news documents on the fly. Building documents on demand allows Fishwrap to provide the most recent news." (*Id.* at 280). Finally, as shown in Figs. 2 and 13 (reproduced below), Fishwrap presents a user with photos

(thumbnails shown below) and audio (display of a portion or representation of a second segment) that "match" or are related to the article being displayed (the first segment).

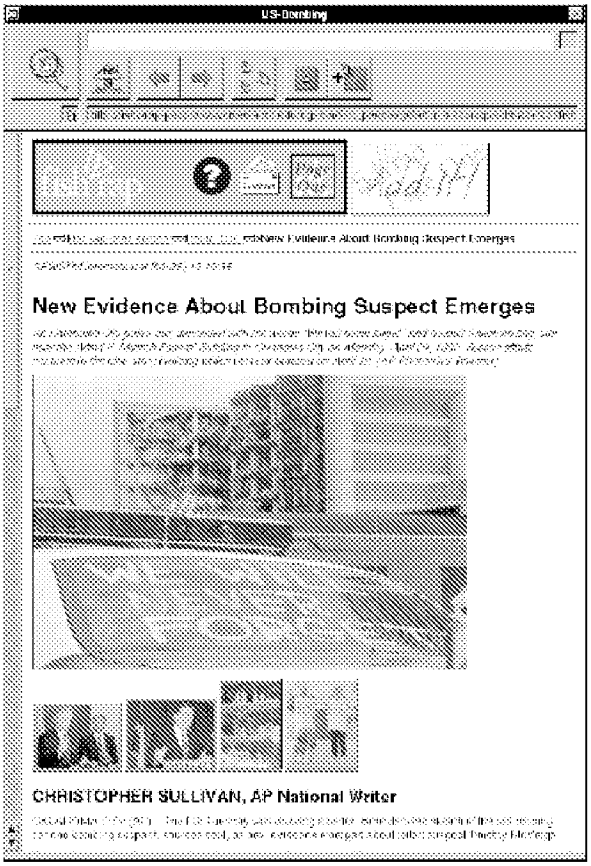


Fig. 13. An article illustrated with photographs.

CLAIM 21

A method as in claim 20, further comprising the step of causing the display of the portion or representation of the second segment to occur substantially coextensive in time with the display of the related first segment.

Chesnais discloses the step of causing the display of the portion or representation of the second segment to occur substantially coextensive in time with the display of the related first segment (*e.g.,*."[i]f an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation."). Further, as shown in particular in Fig. 13 above, the display of the photos (thumbnails) (a second segment) is substantially coextensive in time with the display of the article.

CLAIM 22

A method as in claim 20, wherein: the step of acquiring data representing the body of information further comprises the step of acquiring audiovisual data representing at least a portion of the body of information, wherein the first and second segments are represented by audiovisual data; and

Chesnais discloses the step of acquiring data representing the body of information further comprises the step of acquiring audiovisual data representing at least a portion of the body of information, wherein the first and second segments are represented by audiovisual data. As explained and shown above, the first segment may include images and the "related" segments include photos and/or audio. *See* '507 patent at 9:47-60 (audiovisual data includes "audio and/or video data [which includes images]"). Further, Chesnais explains that the data used to build the Fishwrap newspaper comes in all forms, including video and graphics files. (p. 278) ("Our current Fishwrap news server uses a media-independent representation, that allows it to accept items with graphics, audio, text, and motion pictures.") Finally, as shown in Fig. 13, both the underlying article and the photos that are displayed include images. See also Chesnais Fig. 6 (News Server acquires multiple types of data, including text, video, images and audio).

the step of generating a display of a first segment of the body of information further comprises the step of generating an audiovisual display of the first segment.

Chesnais discloses the step of generating a display of a first segment of the body of information further comprises the step of generating an audiovisual display of the first segment. For example, Figs. 2 and 13 of Chesnais plainly show that the underlying article includes audiovisual data (e.g., images). '507 patent at 9:50-56 ("video data . . . includ[es] images" and "'audiovisual data' refers to data that includes audio and/or video data, and may include text data"). This is possible because Fishwrap is able to "accept items with graphics, audio, text and motion pictures." (p. 279.)

CLAIM 23

A method as in claim 22, further comprising the step of identifying the selection of a second segment for which a portion or representation is being displayed, wherein selection of such second segment causes an audiovisual display of the selected second segment to be produced.

Chesnais discloses the step of identifying the selection of a second segment for which a portion or representation is being displayed, wherein selection of such second segment causes an audiovisual display of the selected second segment to be produced. For example, Chesnais explains that it uses a web browser and, as shown in Fig. 2, a user may select an article from a list of related articles and have that article displayed or select a photo (e.g., thumbnail). *See e.g.,* Fig. 2; at 276 ("If an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation"; "In addition, each article displays the news topics which it matches. This enables the readers to directly view similar articles.") Chesnais also explains that the use of HTML format allows the user to navigate through the presentation. *See* Chesnais at 279 ("Fishwrap uses hypertext as means of structuring the presentation. It allows the individual to follow links along the Fishwrap table of contents akin to the way one would flip through pages of a traditional newspaper. HTML allows us to specify some of the visual attributes of the documents we present to the individual. HTML also provides a uniform mechanism for accepting input from the reader.") (emphasis added). Thus, Chesnais discloses the ability to accept a user selection of a representation or portion of the second segment (thumbnail) and display an audiovisual (e.g., images, graphics, etc.) of that segment. Alternatively, it is inherent in Chesnais's disclosure of using a web browser to render the Fishwrap paper to a user that the user could select a thumbnail to display the photo.

CLAIM 24

A method as in claim 20, wherein: the step of acquiring data representing the body of information further comprises the step of acquiring audiovisual data representing at least a portion of the body of information;

Chesnais discloses the step of acquiring data representing the body of information further comprises the step of acquiring audiovisual data representing at least a portion of the body of information. As explained and shown above, the first segment may include images and the "related" segments include photos and/or audio. *See* '507 patent at 9:47-60 (audiovisual data includes "audio and/or video data [which includes images]"). Further, Chesnais explains that the data used to build the Fishwrap newspaper comes in all forms, including video and graphics files. Chesnais, p. 278 ("Our current Fishwrap news server uses a media-independent representation, that allows it to accept items with graphics, audio, text, and motion pictures.") Finally, as shown in Fig. 13, both the underlying article and the photos that are displayed include

images. See also Chesnais Fig. 6 (News Server acquires multiple types of data, including text, video, images and audio).

the step of generating a display of a first segment of the body of information further comprises the step of generating an audiovisual display of the first segment; and

Chesnais discloses the step of generating a display of a first segment of the body of information further comprises the step of generating an audiovisual display of the first segment. As explained immediately above, the articles in Chesnais may include a variety of data types, including graphics, photos and audio data. *See e.g.*, Fig. 2 and Chesnais at 276 ("If an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation.").

the step of generating a display of a portion of, or a representation of, a second segment of the body of information further comprises the step of generating a text display of the portion or representation of the second segment.

Chesnais discloses the step of generating a display of a portion of, or a representation of, a second segment of the body of information further comprises the step of generating a text display of the portion or representation of the second segment. For example, as shown in Fig. 2 a user may select an article from a list of related articles and have that article displayed. *See e.g.,* Fig. 2 and Chesnais at 276 ("If an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation.") Also, Chesnais discloses displaying news topics that match each article so that readers may directly view similar articles. *See e.g.,* Chesnais at 276 ("In addition, each article displays the news topics which it matches. This enables the readers to directly view similar articles.")

CLAIM 27

A method as in claim 20, further comprising the step of identifying the subject matter content of a segment of the body of information, wherein the step of comparing further comprises the step of determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined.

Chesnais in view of Bender discloses the step of identifying the subject matter content of a segment of the body of information, wherein the step of comparing further comprises the step of determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined. For example, as discussed above in connection with claim 20 (comparing step), in Chesnais all incoming items are provided with a signature. As shown in Fig. 9 of Chesnais, the signature process (which adds the content labeled 1 and 3 to the item) provides additional data regarding the subject matter of the underlying item, such as a headline ("Survivors of Crash Victim Sue USAir"), a "slugword" that contains keywords, and a "summary."

Further, as discussed above in connection with claim 20 (comparing step) Bender discloses comparing closed caption data representing a news broadcast (one segment) to news wire text stories (different segments) via keyword matching to determine, whether according to predetermined criteria including a predefined degree of similarity (e.g., a threshold number of matched keywords), the segments are related. See *e.g.*, Bender at pp. 82-83 (describing keyword matching process) ("Network Plus is comprised of two procedural components. One gathers information prior to the broadcast. The other matches stories during the broadcast."(emphasis added); "The primary function of Network Plus is to correlate news wire stories and live broadcasts. . . . A keyword matching scheme was chosen, based upon empirical evidence that there exists a sufficient correspondence between words found in the transcript and words found in the wire service stories. If the number of words common to both the transcript and a trial story exceeded some threshold, the two were designated as related. . . . A threshold of four words worked well in this experiment. . .") (emphasis added). Thus, Bender discloses at least comparing the closed caption data for the news broadcast with the news wire text via keyword matching to determine whether according to a predetermined threshold for keyword matching (e.g., four common words), the broadcast and the news wire story are related. Keywords indicate the subject matter content of a broadcast and a news story, and the threshold of four matching keywords disclosed in Bender is a predefined degree of similarity with respect to which the relatedness of compared segments is determined.

As explained above, one of skill in the art would have been motivated to combine Bender's keyword matching scheme with the disclosure of Chesnais to identify matching photos

and sound recordings at least because Chesnais discloses that all items in the Fishwrap system are assigned a "signature" that includes keywords, and further discloses identifying photos and audio files in its database that "match" a news article, and Bender discloses using a keyword matching scheme to "match" news stories to a broadcast. Thus, to the extent that Chesnais does not expressly or inherently disclose "determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined," using a predefined threshold for a number of keywords that match as disclosed in Bender would have been obvious to one of ordinary skill in the art based upon Chesnais in view of Bender.

CLAIM 31

> **A method as in claim 20, wherein the step of acquiring data further comprises the step of acquiring computer-readable data files over a computer network from an information providing site that is part of that network.**

Chesnais discloses the step of acquiring computer-readable data files over a computer network from an information providing site that is part of that network. As shown for example in Fig. 6, the News Server in Chesnais receives a variety of file types. FIG. 6 also shows that the News Server receives files from the ClariNet online news service, which is one of the information sources identified in the '507 patent at 10:1-3. Chesnais further explains that "[t]he traditional news wires (Associated Press, Reuters, Knight-Ridder/Tribune, and BPI Entertainment all are providing their news feeds to Fishwrap) come in ANPA [7] format. Fishwrap also receives submissions via electronic mail and a number of 'homebrew' formats." Thus, Chesnais discloses multiple types of computer-readable files being acquired by Fishwrap.

CLAIM 34

> **A method as in claim 20, further comprising the step of identifying an instruction from a user to begin displaying at least some of the body of information, wherein the display of a first segment is begun in response to the user instruction.**

Chesnais discloses the step of identifying an instruction from a user to begin displaying at least some of the body of information, wherein the display of a first segment is begun in response to the user instruction because, for example, using Chesnais's web browser a user may select an

article from a list of related articles and have that article displayed. *See e.g.,* Fig. 2 and Chesnais at 276 ("If an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation."). Chesnais also explains that the use of HTML format allows the user to navigate through the presentation. *See* Chesnais at 279 ("Fishwrap uses hypertext as means of structuring the presentation. It allows the individual to follow links along the Fishwrap table of contents akin to the way one would flip through pages of a traditional newspaper. HTML allows us to specify some of the visual attributes of the documents we present to the individual. HTML also provides a uniform mechanism for accepting input from the reader.")(emphasis added).

CLAIM 37

A method as in claim 20, wherein at least some of the acquired data is digital data, the step of acquiring data further comprising the step of acquiring digital data.

Chesnais discloses that at least some of the acquired data is digital data, the step of acquiring data further comprising the step of acquiring digital data. For example, Chesnais discloses that incoming items "come to Fishwrap in many formats: over satellite, radio frequencies, email, and phone line." Email is necessarily digital data. Moreover, the news wire services typically provided the information in digital form. See OTH-B (*e.g.*, "The product, called Newshedge […] gives users access to "live" news from […] Dow Jones News Service. […] Newshedge funnels downloaded data into a stream.") Moreover, the Patent Owner admitted that text from news wire services is digital data. *See, e.g.*, '507 at 12:6-8 ("Text data acquired from online text sources, for example, is acquired in digital form and so can be used directly in such processing.") FIG. 6 of Chesnais shows that the News Server receives files from the ClariNet online text source (news service), which is one of the information sources identified in the '507 patent at 10:1-3.

CLAIM 38

A method as in claim 20, wherein at least some of the acquired data is analog data, the step of acquiring data further comprising the step of acquiring analog data.

Chesnais discloses that at least some of the acquired data is analog data, the step of acquiring data further comprising the step of acquiring analog data. For example, Chesnais

discloses information "come[s] to Fishwrap in many formats: over satellite, radio frequencies, email, and phone line." Radio frequency reception from the timeframe in which Chesnais was published would include the acquisition of analog data.

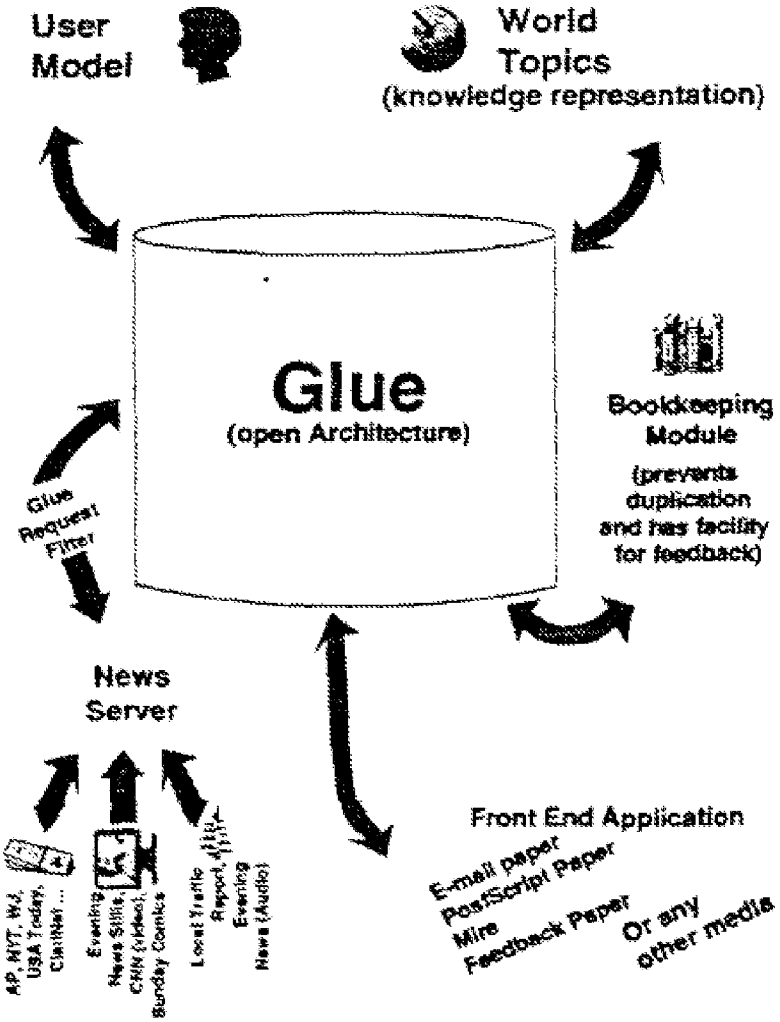
CLAIM 63

A computer readable medium encoded with one or more computer programs for enabling acquisition and review of a body of information, wherein the body of information includes a plurality of segments, each segment representing a defined set of information in the body of information, comprising:

Chesnais discloses a computer readable medium encoded with one or more computer programs for enabling acquisition and review of a body of information, wherein the body of information includes a plurality of segments, each segment representing a defined set of information in the body of information (*e.g.*, "Fishwrap is an experimental electronic newspaper system available at MIT." (p. 275); "The Fishwrap design readily accepts traditional news wire stories and direct contributions from the community." (*Id.*); "All items coming into the system are analyzed for geographic and topical relevancy." (*Id.*) (emphasis added); "Access to Fishwrap's personalized news system appears as a World Wide Web (WWW) hypertext link" (*Id.*); "[W]ithin Fishwrap an article begins when it appears on any incoming data stream. Each data stream has its own supplier program which monitors incoming traffic. Articles come to Fishwrap in many formats: over satellite, radio frequencies, email, and phone line. Each supplier program does three things: First it translates all news items into an internal, wire-independent representation using Dtype [3] expandable data structure. Second the supplier adds a signature to each item. The signature represents an inference made from the data. Finally each article is supplied to the Fishwrap news database server." (p. 277) (emphasis added);[20] "A Fishwrap reader starts with their edition's table of contents, then focuses on a particular news topic and, ultimately, articles that are illustrated with graphics and audio." (p. 276).) Further as

[20] As shown in this quotation, Chesnais uses the word "article" in some aspects to refer to "all news items," not just news items that are articles. Further, references in quotes to Chesnais in the form of [number] appear this way in the Chesnais publication and refer to the references listed at the end of the article.

shown in Fig. 6 (reproduced below) the "News Server" receives many different types of data, including news wire feeds, evening news stills and video, and audio files. (Fig. 6, at 278). As described above, each of these different data items represent distinct segments that Fishwrap analyzes and creates a "signature" for.



The Fishwrap electronic newspaper system includes multiple servers that contain computer readable medium comprising instructions for performing the functions disclosed by Chesnais (*e.g.,* "Glue provides a standard 'plug and play' set of tools for servers, knowledge representations modules, user profiling systems, and presentation modules." (p. 278)). Further, Chesnais also describes multiple modules interacting as part of Glue, including the News Server acquiring the news items (pp. 278-79), the supplier programs adding signatures (pp. 277 & 278) and the Front End Application rendering presentation to a user (p. 277). Certain module names are shown in boldface in Fig. 7 (p. 278).

instructions for acquiring data representing the body of information;

Chesnais discloses instructions for acquiring data representing the body of information (*e.g.*, "The Fishwrap design readily accepts traditional news wire stories and direct contributions from the community." (p. 275); "[W]ithin Fishwrap an article begins when it appears on any incoming data stream. Each data stream has its own supplier program which monitors incoming traffic. Articles come to Fishwrap in many formats: over satellite, radio frequencies, email, and phone line." (p. 277); "*Suppliers and Servers* – Fishwrap receives news from a variety of sources and formats. The traditional news wires (Associated Press, Reuters, Knight-Ridder/Tribune, and BPI Entertainment all are providing their news feeds to Fishwrap) come in ANPA [7] format. Fishwrap also receives submissions via electronic mail and a number of 'homebrew' formats'" (p. 278)). Further, as shown above with respect to Fig. 6, the "NEWS SERVER" acquires information from a variety of sources, including text, video, images and audio. (*Id.*). Chesnais also explains that "[o]ur current Fishwrap news server uses a media-independent representation, that allows it to accept items with graphics, audio, text, and motion pictures. It is up to the presentation application to determine the appropriate medium to provide." (p. 279.) As exemplified by the above citations, Chesnais discloses that Fishwrap includes instructions for acquiring a variety of different types of data that would make up a body of information.

instructions for storing the acquired data;

Chesnais discloses instructions for storing the acquired data, including for example news wire stories, photos and audio files in databases. *See e.g.*, Chesnais at p. 277 ("[W]ithin Fishwrap an article begins when it appears on any incoming data stream. Each data stream has its own supplier program which monitors incoming traffic. . . . Finally each article is suplied to the Fishwrap news database server [4] where it will remain for the next 48 hours."); and Chesnais at p. 278 ("Fishwrap also checks its photo and audio databases to see if there are photos and sound recordings that match the story."); *see also id.* at Fig. 6. Thus, Chesnais describes that it stores all incoming items.

instructions for generating a display of a first segment of the body of information from data that is part of the stored data;

Chesnais discloses instructions for generating a display of a first segment of the body of information from data that is part of the stored data. For example, it discloses generating a

display of an article. *See e.g.,* Chesnais at 277 (e.g., "When a reader generates a newspaper through Fishwrap, an article is retrieved if it matches one of the reader's global topics of interest. . . .[and an "article is then rendered by the front end application"); *see also* Figs. 2 and 13 (reproduced below). Chesnais further explains that it uses a web browser to provide the display. *See e.g.*, Chesnais at p. 275 ("World Wide Web browser access allows for easy traversing of the information space (see Figure 2)."). Chesnais further explains how the user navigates to display an article—"[a] Fishwrap reader starts with their edition's table of contents, then focuses on a particular news topic and, ultimately, articles that are illustrated with graphics and audio." Chesnais at p. 276. Figs. 2 and 13, reproduced below, further illustrate how a user of Fishwrap can navigate to a particular news item, such as the article "New Evidence About Bombing Suspect Emerges," which represents an example of the display of a first segment generated from the stored data. Further, Fig. 7 shows the "appRender" module that renders the articles (p. 278). Thus, Chesnais discloses that Fishwrap has instructions to display the aforementioned fist segment.

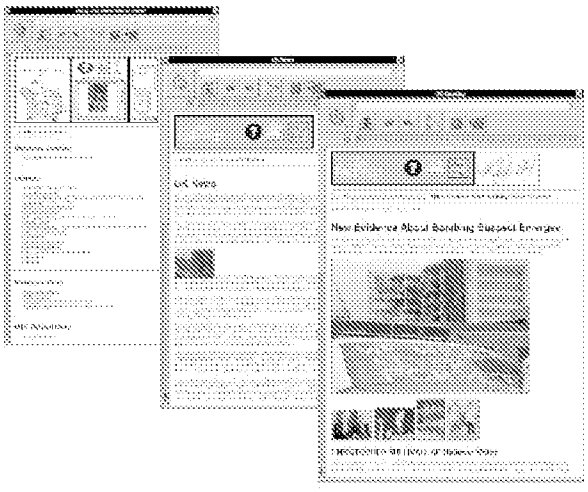


Fig. 2. A Fishwrap reader starts with their edition's table of contents, then focuses on a particular news topic and, ultimately, articles that are illustrated with graphics and audio.

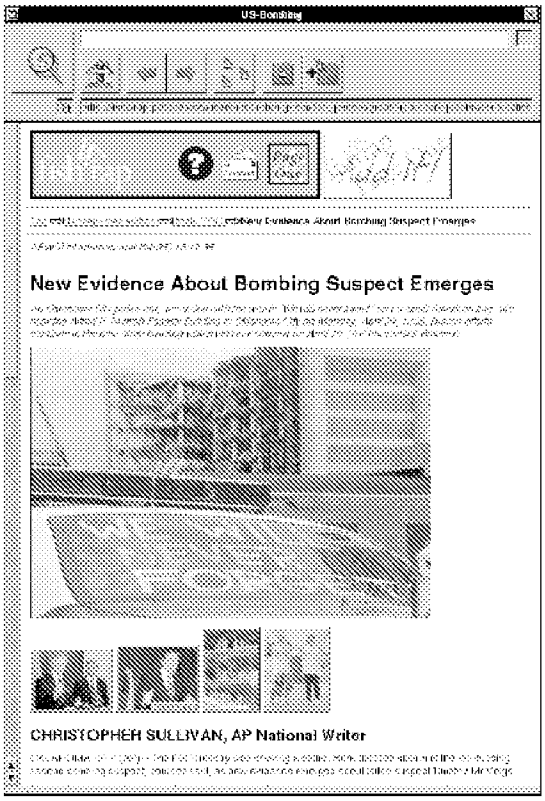


Fig. 13. An article illustrated with photographs.

Chesnais at FIGS. 2 and 13

instructions for comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related; and

Chesnais discloses instructions for comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related. As explained below, Chesnais discloses that all incoming items are provided with a signature, which is used for searching, and that when an article is rendered Fishwrap also searches the photo and audio databases for items that "match the story" (*i.e.*, related items). *See e.g.*, Chesnais at 277 ("When a reader generates a newspaper through Fishwrap . . . . The article is then rendered by the front end application with hints given by the signatures. Fishwrap also checks its photo and audio databases to see if there are photos and sound recordings that match the story.") (emphasis added); and Chesnais at p. 281 ("One blind student appreciated the . . . audio segments for illustrations."). As discussed in more detail below, Chesnais discloses the "comparing" as identifying "photos and sound recordings that match the story." Chesnais makes this possible because, as addressed immediately below, the Fishwrap system stores the incoming items (*e.g.*, stories, audio files, and photos) with "signatures" ("data representing" a segment).

For example, Chesnais explains that the "signatures," which are derived from the incoming data are applied to all items coming into the system. Chesnais at p. 275 ("All items coming into the system are analyzed for geographic and topical relevancy."). These signatures are created along with a particular data structure ("Dtype")[21] and provides "inferences" about the item:

> within Fishwrap an article begins when it appears on any incoming data stream. Each data stream has its own supplier program which monitors incoming traffic. . . . . First it translates all news items into an internal, wire-independent representation using Dtype [3] expandable data structure. Second the supplier

[21] As shown in this quotation, Chesnais uses the word "article" in some aspects to refer to "all news items," not just news items that are articles. Further, references in quotes to Chesnais in the form of [number] appear this way in the Chesnais publication and refer to the references listed at the end of the article.

adds a signature to each item. The signature represents an inference made from the data.

Chesnais at p. 277.

Further, as shown in Fig. 9 of Chesnais (reproduced below), the signature process (which adds the content labeled 1 and 3 to the item) provides additional data representing the item (i.e., an inference made from the data), such as a headline ("Survivors of Crash Victim Sue USAir"), a "slugword," and a "summary."

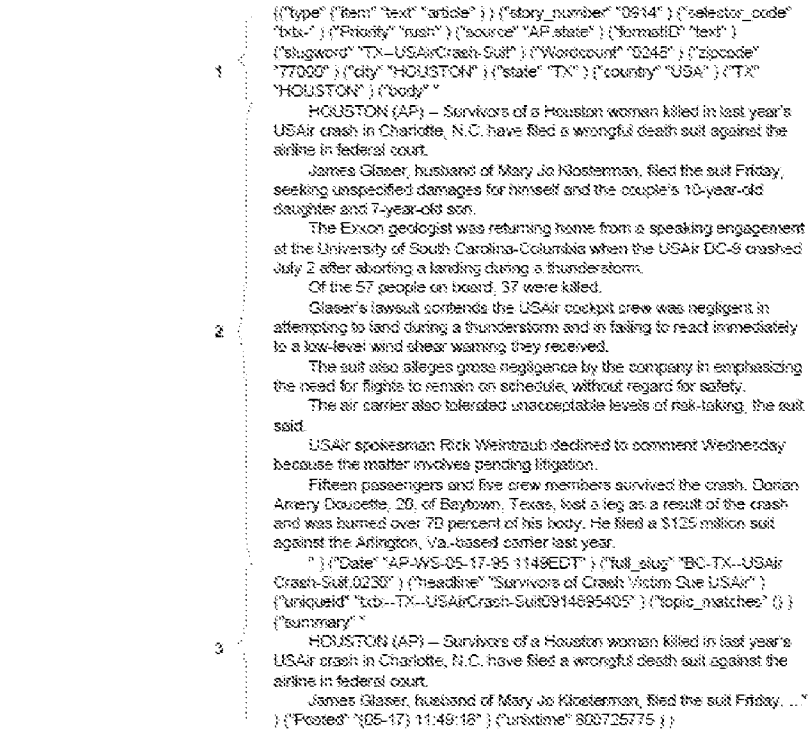


Fig. 9. An AP article in a Dtype structure. The first and third portion is material derived from the ANPA format coding other information added to the article by the signature process.

Chesnais at p. 279.

Chesnais further explains that the signatures are used in searches ("because they significantly speed up the searches") used to build a paper to present to the user, which presentation, as described above and shown for example by the photo thumbnails in Figs. 2 and 13, also includes "photos and sound recordings that match the story." *See e.g.,* Chesnais at Figs. 2 and 13 and p. 277 (matching) & 279 (using signatures to "significantly speed up the searches."). Thus, the signatures, which include data representing the segments (*i.e.*, a headline and a summary like those shown in the third portion of Fig. 9), include predetermined criteria used to determine whether particular segments are related.

Chesnais references the *Wire Service Transmission Guidelines* Special Report No. 84-2, from the American Newspaper Publishers Association (ANPA). Chesnais at p. 278 & 282. Chesnais states that the signature added to an item is "derived from the ANPA format coding." Chesnais, p. 279. As shown in Fig. 9, the signature of an item included a "slugword" field with keywords. Therefore, one of ordinary skill in the art would understand that the signature for photos stored in the Fishwrap database included a slugword field containing keywords associated with the photos.

Chesnais discloses "comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related." However, even if the Examiner determined that Chesnais did not expressly or inherently disclose comparing signatures of two items to determine if they are related, it would have been obvious to one of ordinary skill in the art to perform the recited comparison step on Chesnais's signatures using the comparison technique disclosed in Bender. Bender discloses comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related. For example, Bender compares closed caption data representing a news broadcast (one segment) to news wire text stories (different segments) via keyword matching to determine, whether according to predetermined criteria (e.g., a threshold number of matched keywords), the segments are related. See *e.g.*, Bender at pp. 82-83 (describing keyword matching process) ("Network Plus is comprised of two procedural components. One gathers information prior to the broadcast. The other matches stories during the broadcast."(emphasis added); "The primary function of Network Plus is to correlate news wire stories and live broadcasts. . . . A keyword matching scheme was chosen, based upon empirical evidence that there exists a sufficient correspondence between words found in the transcript and words found in the wire service stories. If the number of words common to both the transcript and a trial story exceeded some threshold, the two were designated as related. . . . A threshold of four words worked well in this experiment. . .") (emphasis added). Bender further provides a specific example illustrating the process for comparing a news wire story about the nuclear accident at Chernobyl to a television broadcast on "ABC Nightly News" to determine they were related. *Id.* Thus, Bender discloses at least comparing the closed caption data for the news broadcast with the

news wire text via keyword matching to determine whether according to a predetermined threshold for keyword matching (e.g., four common words), the broadcast and the news wire story are related.

One of skill in the art would have been motivated to combine Bender's keyword matching scheme with the disclosure of Chesnais to identify matching photos and sound recording at least because Chesnais discloses that all items in the Fishwrap system are assigned a "signature" that includes keywords, and further discloses identifying photos and audio files in its database that "match" a news article, and Bender discloses using a keyword matching scheme to "match" news stories to a broadcast. Thus, to the extent that Chesnais does not expressly or inherently disclose using predetermined criteria to "compar[e] data representing a segment of the body of information to data representing a different segment of the body of information to determine whether . . . the compared segments are related," using a predefined threshold for a number of keywords that match as disclosed in Bender would have been obvious to one of ordinary skill in the art based upon Chesnais in view of Bender.

instructions for generating a display of a portion of, or a representation of, a second segment of the body of information from data that is part of the stored data, wherein the display of the portion or representation of the second segment is generated in response to the display of a first segment to which the second segment is related.

Chesnais discloses instructions for generating a display of a portion of, or a representation of, a second segment of the body of information from data that is part of the stored data, wherein the display of the portion or representation of the second segment is generated in response to the display of a first segment to which the second segment is related. Specifically, Chesnais discloses that the Fishwrap system, in the following order, (1) renders an article, (2) then checks for photos or audio that match the article, and (3) then displays the related photos or audio. *See e.g.*, Chesnais at p. 277 ("The article is then rendered by the front end application with hints given by the signatures. Fishwrap also checks its photo and audio databases to see if there are photos and sound recordings that match the story. For most Fishwrap readers, articles are rendered in hypertext markup language (HTML) for a WWW browser."; and Chesnais at p. 281 ("One blind student appreciated the . . . audio segments for illustrations."). Chesnais further explains "On Demand Publishing: Fishwrap's use of the WWW is different from existing servers. Rather than be an archive of documents, Fishwrap contructs [sic] its personalized news

documents on the fly. Building documents on demand allows Fishwrap to provide the most recent news." (*Id.* at 280). Finally, as shown in Figs. 2 and 13 (reproduced below), Fishwrap presents a user with photos (thumbnails shown below) and audio (display of a portion or representation of a second segment) that "match" or are related to the article being displayed (the first segment).

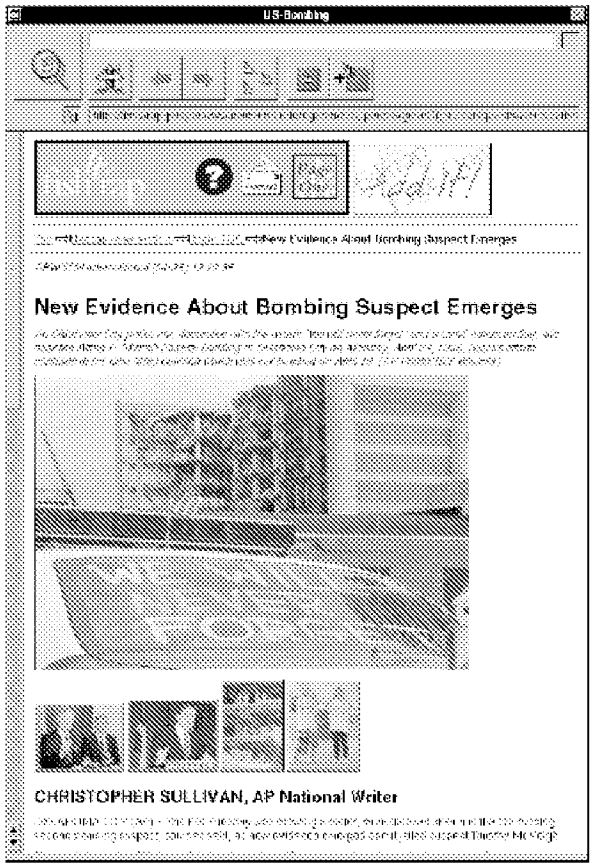


Fig. 13. An article illustrated with photographs.

CLAIM 64

A computer readable medium as in claim 63, further comprising instructions for causing the display of the portion or representation of the second segment to occur substantially coextensive in time with the display of the related first segment.

Chesnais discloses instructions for causing the display of the portion or representation of the second segment to occur substantially coextensive in time with the display of the related first segment (*e.g.*,."[i]f an article summary seems interesting, the reader can expand on it – getting

the full text and relevant graphics or audio augmentation."). Further, as shown in particular in Fig. 13 above, the display of the photos (thumbnails) (a second segment) is substantially coextensive in time with the display of the article.

CLAIM 65

> **A computer readable medium as in claim 63, wherein: the instructions for acquiring data representing the body of information further comprise instructions for acquiring audiovisual data representing at least a portion of the body of information, wherein the first and second segments are represented by audiovisual data; and**

Chesnais discloses instructions for acquiring audiovisual data representing at least a portion of the body of information, wherein the first and second segments are represented by audiovisual data because as explained and shown above, the first segment may include images and the "related" segments include photos and/or audio. As explained and shown above, the first segment may include images and the "related" segments include photos and/or audio. *See* '507 patent at 9:47-60 (audiovisual data includes "audio and/or video data [which includes images]"). Further, Chesnais explains that the data used to build the Fishwrap newspaper comes in all forms, including video and graphics files. (p. 278) ("Our current Fishwrap news server uses a media-independent representation, that allows it to accept items with graphics, audio, text, and motion pictures.") Finally, as shown in Fig. 13, both the underlying article and the photos that are displayed include images. See also Chesnais Fig. 6 (News Server acquires multiple types of data, including text, video, images and audio). Thus Chesnais discloses that Fishwrap has instructions for acquiring audiovisual data.

> **the instructions for generating a display of a first segment of the body of information further comprise instructions for generating an audiovisual display of the first segment.**

Chesnais discloses instructions for generating an audiovisual display of the first segment. For example, Figs. 2 and 13 of Chesnais plainly show that the underlying article includes audiovisual data (e.g., images). '507 patent at 9:50-56 ("video data . . . includ[es] images" and "'audiovisual data' refers to data that includes audio and/or video data, and may include text data"). This is possible because Fishwrap is able to "accept items with graphics, audio, text and motion pictures." (p. 279.) Thus, Chesnais discloses that Fishwrap has instructions for generating an audiovisual display.

CLAIM 66

A computer readable medium as in claim 65, further comprising instructions for identifying the selection of a second segment for which a portion or representation is being displayed, wherein selection of such second segment causes an audiovisual display of the selected second segment to be produced.

Chesnais discloses instructions for identifying the selection of a second segment for which a portion or representation is being displayed, wherein selection of such second segment causes an audiovisual display of the selected second segment to be produced. For example, Chesnais explains that it uses a web browser and, as shown in Fig. 2, a user may select an article from a list of related articles and have that article displayed or select a photo (e.g., thumbnail). *See e.g.,* Fig. 2; at 276 ("If an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation"; "In addition, each article displays the news topics which it matches. This enables the readers to directly view similar articles.") Chesnais also explains that the use of HTML format allows the user to navigate through the presentation. *See* Chesnais at 279 ("Fishwrap uses hypertext as means of structuring the presentation. It allows the individual to follow links along the Fishwrap table of contents akin to the way one would flip through pages of a traditional newspaper. HTML allows us to specify some of the visual attributes of the documents we present to the individual. HTML also provides a uniform mechanism for accepting input from the reader.") (emphasis added). Thus, Chesnais discloses the ability to accept a user selection of a representation or portion of the second segment (thumbnail) and display an audiovisual (e.g., images, graphics, etc.) of that segment. Alternatively, it is inherent in Chesnais's disclosure of using a web browser to render the Fishwrap paper to a user that the user could select a thumbnail to display the photo. As exemplified by the above citations, Chesnais discloses that Fishwrap includes instructions for identifying a second segment for which a portion or representation is displayed.

CLAIM 67

A computer readable medium as in claim 63, wherein: the instructions for acquiring data representing the body of information further comprise instructions for acquiring audiovisual data representing at least a portion of the body of information;

Chesnais discloses instructions for acquiring audiovisual data representing at least a portion of the body of information because as explained and shown above, the first segment may

include images and the "related" segments include photos and/or audio. As explained and shown above, the first segment may include images and the "related" segments include photos and/or audio. *See* '507 patent at 9:47-60 (audiovisual data includes "audio and/or video data [which includes images]"). Further, Chesnais explains that the data used to build the Fishwrap newspaper comes in all forms, including video and graphics files. Chesnais, p. 278 ("Our current Fishwrap news server uses a media-independent representation, that allows it to accept items with graphics, audio, text, and motion pictures.") Finally, as shown in Fig. 13, both the underlying article and the photos that are displayed include images. See also Chesnais Fig. 6 (News Server acquires multiple types of data, including text, video, images and audio).

the instructions for generating a display of a first segment of the body of information further comprise instructions for generating an audiovisual display of the first segment; and

Chesnais discloses instructions for generating an audiovisual display of the first segment. As explained immediately above, the articles in Chesnais may include a variety of data types, including graphics, photos and audio data. *See e.g.*, Fig. 2 and Chesnais at 276 ("If an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation."). Fig. 7 shows the "appRender" module that renders the articles (p. 278). Thus, Chesnais discloses that Fishwrap has instructions for generating an audiovisual display.

the instructions for generating a display of a portion of, or a representation of, a second segment of the body of information further comprise instructions for generating a text display of the portion or representation of the second segment.

Chesnais discloses instructions for generating a text display of the portion or representation of the second segment. For example, as shown in Fig. 2 a user may select an article from a list of related articles and have that article displayed. *See e.g.,* Fig. 2 and Chesnais at 276 ("If an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation.") Also, Chesnais discloses displaying news topics that match each article so that readers may directly view similar articles. *See e.g.,* Chesnais at 276 ("In addition, each article displays the news topics which it matches. This enables the readers to directly view similar articles.") Fig. 7 shows the "appRender" module that

renders the articles (p. 278). Thus, Chesnais discloses that Fishwrap has instructions for generating a text display.

CLAIM 70

> **A computer readable medium as in claim 63, further comprising instructions for identifying the subject matter content of a segment of the body of information, wherein the instructions for comparing further comprise instructions for determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined.**

Chesnais discloses instructions for identifying the subject matter content of a segment of the body of information, wherein the instructions for comparing further comprise instructions for determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined. For example, as discussed above in connection with claim 20 (comparing step), in Chesnais all incoming items are provided with a signature. As shown in Fig. 9 of Chesnais, the signature process (which adds the content labeled 1 and 3 to the item) provides additional data regarding the subject matter of the underlying item, such as a headline ("Survivors of Crash Victim Sue USAir"), a "slugword" that contains keywords, and a "summary."

Further, as discussed above in connection with claim 20 (comparing step) Bender discloses comparing closed caption data representing a news broadcast (one segment) to news wire text stories (different segments) via keyword matching to determine, whether according to predetermined criteria including a predefined degree of similarity (e.g., a threshold number of matched keywords), the segments are related. See *e.g.*, Bender at pp. 82-83 (describing keyword matching process) ("Network Plus is comprised of two procedural components. One gathers information prior to the broadcast. The other matches stories during the broadcast."(emphasis added); "The primary function of Network Plus is to correlate news wire stories and live broadcasts. . . . A keyword matching scheme was chosen, based upon empirical evidence that there exists a sufficient correspondence between words found in the transcript and words found in the wire service stories. If the number of words common to both the transcript and a trial story exceeded some threshold, the two were designated as related. . . . A threshold of four words

worked well in this experiment. . .") (emphasis added). Thus, Bender discloses at least comparing the closed caption data for the news broadcast with the news wire text via keyword matching to determine whether according to a predetermined threshold for keyword matching (e.g., four common words), the broadcast and the news wire story are related. Keywords indicate the subject matter content of a broadcast and a news story, and the threshold of four matching keywords disclosed in Bender is a predefined degree of similarity with respect to which the relatedness of compared segments is determined.

As explained above, one of skill in the art would have been motivated to combine Bender's keyword matching scheme with the disclosure of Chesnais to identify matching photos and sound recordings at least because Chesnais discloses that all items in the Fishwrap system are assigned a "signature" that includes keywords, and further discloses identifying photos and audio files in its database that "match" a news article, and Bender discloses using a keyword matching scheme to "match" news stories to a broadcast. Thus, to the extent that Chesnais does not expressly or inherently disclose "determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined," using a predefined threshold for a number of keywords that match as disclosed in Bender would have been obvious to one of ordinary skill in the art based upon Chesnais in view of Bender.

CLAIM 74

> **A computer readable medium as in claim 63, wherein the instructions for acquiring data further comprise instructions for acquiring computer-readable data files over a computer network from an information providing site that is part of that network.**

Chesnais discloses instructions for acquiring computer-readable data files over a computer network from an information providing site that is part of that network. As shown for example in Fig. 6, the News Server in Chesnais receives a variety of file types. FIG. 6 also shows that the News Server receives files from the ClariNet online news service, which is one of the information sources identified in the '507 patent at 10:1-3. Chesnais further explains that "[t]he traditional news wires (Associated Press, Reuters, Knight-Ridder/Tribune, and BPI Entertainment all are providing their news feeds to Fishwrap) come in ANPA [7] format.

Fishwrap also receives submissions via electronic mail and a number of 'homebrew' formats." Thus, Chesnais discloses multiple types of computer-readable files being acquired by Fishwrap, and discloses that Fishwrap has instructions for acquiring computer readable data files over a computer network.

CLAIM 77

> **A computer readable medium as in claim 63, further comprising instructions for identifying an instruction from a user to begin displaying at least some of the body of information, wherein the display of a first segment is begun in response to the user instruction.**

Chesnais discloses instructions for identifying an instruction from a user to begin displaying at least some of the body of information, wherein the display of a first segment is begun in response to the user instruction. because, for example, using Chesnais' web brower auser may select an article from a list of related articles and have that article displayed. *See e.g.,* Fig. 2 and Chesnais at 276 ("If an article summary seems interesting, the reader can expand on it – getting the full text and relevant graphics or audio augmentation."). Chesnais also explains that the use of HTML format allows the user to navigate through the presentation. *See* Chesnais at 279 ("Fishwrap uses hypertext as means of structuring the presentation. It allows the individual to follow links along the Fishwrap table of contents akin to the way one would flip through pages of a traditional newspaper. HTML allows us to specify some of the visual attributes of the documents we present to the individual. HTML also provides a uniform mechanism for accepting input from the reader.")(emphasis added). As exemplified by the above citations, Chesnais discloses that Fishwrap includes instructions for identifying an instruction from a user to begin displaying a first segment.

CLAIM 80

> **A computer readable medium as in claim 63, wherein at least some of the acquired data is digital data, the instructions for acquiring data further comprising instructions for acquiring digital data.**

Chesnais discloses that at least some of the acquired data is digital data, the step of acquiring data further comprising the step of acquiring digital data. For example, Chesnais discloses that incoming items "come to Fishwrap in many formats: over satellite, radio frequencies, email, and phone line." Email is necessarily digital data. Moreover, the news wire

services typically provided the information in digital form. See OTH-B (*e.g.*, "The product, called Newshedge […] gives users access to "live" news from […] Dow Jones News Service. […] Newshedge funnels downloaded data into a stream.") Moreover, the Patent Owner admitted that text from news wire services is digital data. *See, e.g.*, '507 at 12:6-8 ("Text data acquired from online text sources, for example, is acquired in digital form and so can be used directly in such processing.") FIG. 6 of Chesnais shows that the News Server receives files from the ClariNet online text source (news service), which is one of the information sources identified in the '507 patent at 10:1-3. Thus Chesnais discloses that Fishwrap has instructions for acquiring digital data.

CLAIM 81

> **A computer readable medium as in claim 63, wherein at least some of the acquired data is analog data, the instructions for acquiring data further comprising instructions for acquiring analog data.**

Chesnais discloses that at least some of the acquired data is analog data, the instruction for acquiring data further comprising instructions for acquiring analog data. For example, Chesnais discloses information "come[s] to Fishwrap in many formats: over satellite, radio frequencies, email, and phone line." Radio frequency reception from the timeframe in which Chesnais was published would include the acquisition of analog data. Thus Chesnais discloses that Fishwrap has instructions for acquiring analog data.

G. CHESNAIS IN VIEW OF BENDER IN VIEW OF PATENT OWNER ADMISSIONS RENDERS OBVIOUS CLAIMS 28 AND 71 OF THE '507 PATENT

Please see the attached Exhibit CC-G presenting claim charts comparing Chesnais in view of Bender and further in view of Patent Owner Admissions with claims 28 and 71 of the '507 patent.

REASONS TO COMBINE

Chesnais is directed toward an electronic newspaper that builds a presentation on the fly and combines for users a variety of data types (e.g., newswire stories, photos and audio, video etc.) based on their similarity. Chesnais, p. 275. Similarly, Bender is directed to presenting news broadcasts and related news articles to users. Bender, p. 81. Further, the '507 patent is also directed toward identifying and displaying news stories that are related to a television news

program. '507 patent at Abstract. Chesnais, Bender, and the '507 patent all describe comparing data representing news items, including text news items. The '507 patent discloses that relevance feedback was well known for use in determining the similarities between two sets of information, particularly text (*e.g.*, "The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). '507 patent at 28:55-29:3.[22]

A person of ordinary skill in the art, looking for a method of determining similarities between two information sources, particularly two text sources, such as the articles and other content disclosed in Chesnais and/or the news broadcast and news articles disclosed in Bender, would have been motivated to use the relevance feedback method of the prior art as discussed in the '507 patent for at least the advantages disclosed in the prior art which the '507 patent incorporates by reference. Thus, it would have been obvious to use a relevance feedback method to compare information in Chesnais and/or Bender since these references and the admissions relate to well-known methods of comparing information. Moreover, the combination of Chesnais, Bender, and the admissions by the Patent Owner yields a predictable result, and one of ordinary skill in the art would clearly be capable of combining these systems to achieve the expected result of determining similarities between two information sources.

CLAIM 28

A method as in claim 27, wherein the step of determining the similarity of the subject matter of segments further comprises the step of performing a relevance feedback method.

The '507 patent includes admissions that the use of relevance feedback methods to compare text was well known in the art. *See e.g.*, '507 patent at 28:55-29:3 ("The use of relevance feedback to determine the similarity between two text segments is well-known, and is

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[22] Patent owner also admits that the prior art incorporated by reference into the '507 patent touts the benefits of using relevance feedback. *See, e.g.,* "Improving Retrieval Performance by Relevance Feedback," Salton, G., Journal of the American Society for Information Science, vol. 41, no. 4, pp. 288-297 ("Salton"); *see also* "The Effect of Adding Relevance Information in a Relevance Feedback Environment," Buckley, C., et al., Proceedings of 17th International Conference on Research and Development in Information Retrieval, DIGIR 94, Springer-verlag (Germany), 1994, pp. 292-300 ("Buckley").

described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). As explained above, these admissions can be used in combination with prior patents and printed publications to establish an SNQ and as a basis reject the claims. *See*: MPEP § 2617(III). Per MPEP § 2617, admissions, which include admitted prior art, can also be used during the examination phase of reexamination, *i.e.*, in claim rejections. Section 2617 refers the reader to MPEP § 2258. MPEP § 2258(I)(F)(2) states, "In *Seiko*, [*Ex parte Seiko Koko Kabushiki Kaisha*, 225 USPQ 1260 (Bd. Pat. App. & Inter. 2984)] the Board relied on *In re Nomiya*, 509 F.2d 566, 184 USPQ 607 (CCPA 1975) holding an admission of prior art in the specification of the parent undergoing reexamination is considered prior art which may be considered as evidence of obviousness under 35 U.S.C. 103." As such, Chesnais in combination with Benderand the Patent Owner's admissions regarding relevance feedback and the incorporated prior art references renders claim 28 obvious.[23]

CLAIM 71

> **A computer readable medium as in claim 70, wherein the instructions for determining the similarity of the subject matter of segments further comprise instructions for performing a relevance feedback method.**

Claim 71 depends from claim 70 and recites the same additional limitation as in claim 28 that the degree of similarity is determined by "a relevance feedback method." Thus, for the same reasons explained above in connection with claim 28, claim 70 would have been obvious in view of Chesnais or Bender, alone or in combination with the Patent Owner's admissions (regarding the use of relevance feedback as well known in the art for comparing text segmentsand the incorporated prior art references, which describe the benefits of using relevance feedback).[24]

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[23] Moreover, the '507 Patent also discloses that the degree of similarity can be determined using any appropriate method, thus further confirming that relevance feedback does not provide a basis to distinguish the claimed invention. As such, Bender either alone or in combination with the Patent Owner's admissions and/or the incorporated Salton and Buckley references renders claim 28 obvious.

[24] Moreover, the '507 Patent also discloses that the degree of similarity can be determined using any appropriate method, thus further confirming that relevance feedback does not provide a basis to distinguish the claimed invention. As such, Bender either alone or in combination with the Patent Owner's admissions and/or the incorporated Salton and Buckley references renders claim 71 obvious.

H. JOACHIMS ANTICIPATES CLAIMS 20-24, 31, 34, 37, 63-67, 74, 77, AND 80 OF THE '507 PATENT

Please see the attached Exhibit CC-H presenting claim charts comparing Joachims with claims 20-24, 31, 34, 37, 63-67, 74, 77, and 80 of the '507 patent.

CLAIM 20

A method for acquiring and reviewing a body of information, wherein the body of information includes a plurality of segments, each segment representing a defined set of information in the body of information, the method comprising the steps of:

Joachims discloses a method for acquiring and reviewing a body of information, wherein the body of information includes a plurality of segments, each segment representing a defined set of information in the body of information (*e.g.,* "WebWatcher [], an agent which assists users in locating information on the WWW or searches autonomously on their behalf.") Joachims at p. 1. Thus, Joachims discloses a method for helping a user review and find [acquire] information, such as webpages [segments] on the World Wide Web [a body of information], that is determined to be of interest to the user or that is related to a webpage the user is currently viewing. Joachims at Abstract and p. 1.

acquiring data representing the body of information;

Joachims discloses acquiring data representing the body of information (*e.g.*, "Figures 1 to 5 illustrate the sequence of web pages a user visits in a typical example."; "an algorithm which identifies pages that are related to a given page using only hypertext structure.") Joachims at p. 1 and Abstract. One skilled in the art would understand that Joachims' WebWatcher system necessarily discloses acquiring webpage data [data representing the body of information] because acquiring the data would be a necessary step before the data can be displayed and analyzed. *See* Joachims at p. 1-3. Moreover, the Patent Owner's infringement contentions in the Underlying Litigation indicate that based on the display of data, it is "apparent" that the data is acquired. (OTH-W Interval Ex. E-2 at Slide 8) Using the Patent Owner's own contention, in order for Joachims to generate the images shown, for example in Figs. 1-5, the computer displaying that data must first acquire the data.

Thus, Joachims discloses acquiring webpage data [data representing the body of information].

storing the acquired data;

Joachims discloses storing the acquired data (*e.g.*, "Figures 1 to 5 illustrate the sequence of web pages a user visits in a typical example."; "an algorithm which identifies pages that are related to a given page using only hypertext structure.") Joachims at p. 1 and Abstract. One skilled in the art would understand that Joachims' WebWatcher system necessarily discloses storing the webpage data [acquired data] because storing the data would be a necessary step before the data can be displayed and analyzed. *See* Joachims at p. 1-3. Moreover, the Patent Owner's infringement contentions in the Underlying Litigation indicate that if the data is acquired and displayed, it is "apparent" that the data is stored. (OTH-W Interval Ex. E-2 at Slide 8) Using the Patent Owner's own contention, in order for Joachims to generate the images shown, for example in Joachims Figs. 1-5, the computer displaying that data must store the data (e.g., in memory accessible by the processor and program controlling the display in order to generate the display).

Thus, Joachims discloses storing webpage data [data representing the body of information].

generating a display of a first segment of the body of information from data that is part of the stored data;

Joachims discloses generating a display of a first segment of the body of information from data that is part of the stored data (*e.g.*, "Figures 1 to 5 illustrate the sequence of web pages a user visits in a typical example."; "In our example the user follows WebWatcher's advice and takes the "ILPNET" hyperlink. She arrives at the page shown in figure 4."; "In our scenario the user is particularly interested in the "ILPNet" page. So she clicks on the button "*Mark this page as interesting"* in the menubar. WebWatcher stores this information and returns a list of 10 pages which WebWatcher estimates to be closely related (figure 5)") Joachims at pp. 1-3 and FIGS. 3-5.

Thus, Joachims discloses generating a display of the "ILPNET" page [first segment]. *See* Joachims at FIG. 5.

comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related; and

There are two ways that Joachims discloses comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related.

First, Joachims discloses: (1) two hyperlinks – "data representing" two different "segment[s] of the body of information," *i.e.*, two separate webpages; (2) comparing the hyperlinks to see if they both have a particular attribute such as "appears on webpage X (the predetermined criterion); and (3) if so, concluding that the linked-to webpages are related, *i.e.*, "of similar interest." *See* Joachims at p. 3. Specifically, Joachims discloses that "two webpages are of similar interest if some third page points to them both." Joachims at p. 3.

Second, Joachims discloses using the "nearest neighbor" method to generate a matrix showing the relationship between webpages, where the columns of the matrix could correspond to "data representing a segment of the body of information" – each column, after all, provides a "fingerprint" of a given webpage in that it identifies where hyperlinks to that given webpage are located. Those columns are then compared to the column for a webpage of interest (e.g., the WWatcher page) to "find the ones most similar to the [of-interest webpage's] column." To the extent some number n of so-related webpages are returned by the grouping (the predetermined criteria), the webpage is considered to be related. Joachims at FIG. 6 and pp. 3 and 4.

generating a display of a portion of, or a representation of, a second segment of the body of information from data that is part of the stored data, wherein the display of the portion or representation of the second segment is generated in response to the display of a first segment to which the second segment is related.

Joachims discloses generating a display of a portion of, or a representation of, a second segment of the body of information from data that is part of the stored data, wherein the display of the portion or representation of the second segment is generated in response to the display of a first segment to which the second segment is related (*e.g.*, "Figures 1 to 5 illustrate the sequence of web pages a user visits in a typical example."; "In our example the user follows WebWatcher's advice and takes the "ILPNET" hyperlink. She arrives at the page shown in figure 4."; "In our scenario the user is particularly interested in the "ILPNet" page. So she clicks on the button "*Mark this page as interesting*" in the menubar. WebWatcher stores this

information and returns a list of 10 pages which WebWatcher estimates to be closely related (figure 5)"). Joachims at pp. 1-3 and FIGS. 3-5.

Similar to the '507 patent's description of a text story being displayed "in response to" a television news story (" . . . a representation of the related information can be displayed in response to . . . the original information display. For instance . . . one or more text news stories . . . that are related . . . to a television news story being displayed can be automatically identified and a portion of the related text news story or stories displayed so that the story or stories can be reviewed for additional information . . . ." The '507 patent at column 3:45-54.), Joachims describes identifying and displaying "a list of 10 pages which WebWatcher estimates to be closely related [to the ILPNET webpage]" together with the ILPNET webpage. Joachims at p. 3.

Thus, as described above and shown in Figure 5, Joachims discloses displaying "a list of 10 pages which WebWatcher estimates to be closely related [to the ILPNET webpage]" [second segment] in response to the "ILPNET" webpage [first segment] being displayed. Joachims at p. 3.

CLAIM 21

A method as in claim 20, further comprising the step of causing the display of the portion or representation of the second segment to occur substantially coextensive in time with the display of the related first segment.

Joachims discloses causing the display of the portion or representation of the second segment to occur substantially coextensive in time with the display of the related first segment (*e.g.,* "In our scenario the user is particularly interested in the "ILPNet" page. So she clicks on the button "*Mark this page as interesting"* in the menubar. WebWatcher stores this information and returns a list of 10 pages which WebWatcher estimates to be closely related (figure 5)"). Joachims at p. 1-3 and FIG. 5.

Thus, as shown in Figure 5, the "list of 10 pages which WebWatcher estimates to be closely related" [second segment] is together with the "ILPNET" webpage [first segment]. Joachims at p. 3 and FIG. 5.

CLAIM 22

A method as in claim 20, wherein: the step of acquiring data representing the body of information further comprises the step of acquiring audiovisual data

representing at least a portion of the body of information, wherein the first and second segments are represented by audiovisual data; and

The Joachims reference dates from 1995. In that time period, webpages were becoming more graphics-oriented, and it has been observed that that graphics capability was in part responsible for the explosive growth of Internet/Worldwide Web usage. See, for example, OTH-C, which describes the Mosaic Internet browser and illustrates how images from the Internet can be downloaded and displayed. OTH-C at p. 58. Therefore, having the first and second segments be audiovisual in nature was inherent in the use of the Mosaic browser as disclosed by Joachims.

the step of generating a display of a first segment of the body of information further comprises the step of generating an audiovisual display of the first segment.

The Joachims reference dates from 1995. In that time period, webpages were becoming more and more graphics-oriented, and it has been observed that that graphics capability was in part responsible for the explosive growth of Internet/Worldwide Web usage. See, for example, OTH-C, which describes the Mosaic Internet browser and illustrates how images from the Internet can be downloaded and displayed. OTH-C at p. 58. Therefore, having the first and second segments be audiovisual in nature was inherent in the use of the Mosaic browser as disclosed by Joachims.

CLAIM 23

A method as in claim 22, further comprising the step of identifying the selection of a second segment for which a portion or representation is being displayed, wherein selection of such second segment causes an audiovisual display of the selected second segment to be produced.

Joachims discloses identifying the selection of a second segment for which a portion or representation is being displayed, wherein selection of such second segment causes an audiovisual display of the selected second segment to be produced (*e.g.*, "Figures 1 to 5 illustrate the sequence of web pages a user visits in a typical example."; "In our example the user follows WebWatcher's advice and takes the "ILPNET" hyperlink. She arrives at the page shown in figure 4."; "In our scenario the user is particularly interested in the "ILPNet" page. So she clicks on the button "*Mark this page as interesting*" in the menubar. WebWatcher stores this information and returns a list of 10 pages which WebWatcher estimates to be closely related (figure 5)"). Joachims at pp. 1-3 and FIGS. 3-5.

Thus, Joachims discloses that selecting a hyperlink, such as those provided in the "list of 10 pages which WebWatcher estimates to be closely related (figure 5)," causes the webpage associated with the selected hyperlink to be displayed.

CLAIM 24

A method as in claim 20, wherein: the step of acquiring data representing the body of information further comprises the step of acquiring audiovisual data representing at least a portion of the body of information;

The Joachims reference dates from 1995. In that time period, webpages were becoming more and more graphics-oriented, and it has been observed that that graphics capability was in part responsible for the explosive growth of Internet/Worldwide Web usage. See, for example, OTH-C, which describes the Mosaic Internet browser and illustrates how images from the Internet can be downloaded and displayed. OTH-C at p. 58. Therefore, having the first and second segments be audiovisual in nature was inherent in the use of the Mosaic browser as disclosed by Joachims.

the step of generating a display of a first segment of the body of information further comprises the step of generating an audiovisual display of the first segment; and

The Joachims reference dates from 1995. In that time period, webpages were becoming more and more graphics-oriented, and it has been observed that that graphics capability was in part responsible for the explosive growth of Internet/Worldwide Web usage. See, for example, OTH-C, which describes the Mosaic Internet browser and illustrates how images from the Internet can be downloaded and displayed. OTH-C at p. 58. Therefore, having the first and second segments be audiovisual in nature was inherent in the use of the Mosaic browser as disclosed by Joachims.

the step of generating a display of a portion of, or a representation of, a second segment of the body of information further comprises the step of generating a text display of the portion or representation of the second segment.

Joachims discloses generating a display of a portion of, or a representation of, a second segment of the body of information further comprises the step of generating a text display of the portion or representation of the second segment (*e.g.*, "Figures 1 to 5 illustrate the sequence of web pages a user visits in a typical example."; "In our example the user follows WebWatcher's

advice and takes the "ILPNET" hyperlink. She arrives at the page shown in figure 4."; "In our scenario the user is particularly interested in the "ILPNet" page. So she clicks on the button "*Mark this page as interesting"* in the menubar. WebWatcher stores this information and returns a list of 10 pages which WebWatcher estimates to be closely related (figure 5)"). Joachims at pp. 1-3 and FIGS. 3-5. As can be seen in Figure 5, the "list of 10 pages which WebWatcher estimates to be closely related (figure 5)" is displayed as text.

CLAIM 31

> **A method as in claim 20, wherein the step of acquiring data further comprises the step of acquiring computer-readable data files over a computer network from an information providing site that is part of that network.**

Joachims discloses acquiring computer-readable data files over a computer network from an information providing site that is part of that network (*e.g.,* "WebWatcher [], an agent which assists users in locating information on the WWW or searches autonomously on their behalf.") Joachims p. 1. In particular, the WebWatcher program disclosed by Joachims is something that facilitates the gathering of information, such as webpages, from the Internet [network]. *See* Joachims at Abstract. Whether it is hyperlinks or the webpages themselves, the data is inherently computer-readable and is acquired over a computer network from an information providing site.

CLAIM 34

> **A method as in claim 20, further comprising the step of identifying an instruction from a user to begin displaying at least some of the body of information, wherein the display of a first segment is begun in response to the user instruction.**

Joachims discloses identifying an instruction from a user to begin displaying at least some of the body of information, wherein the display of a first segment is begun in response to the user instruction (*e.g.,* "Figures 1 to 5 illustrate the sequence of web pages a user visits in a typical example."; "In our example the user follows WebWatcher's advice and takes the "ILPNET" hyperlink. She arrives at the page shown in figure 4."; "In our scenario the user is particularly interested in the "ILPNet" page. So she clicks on the button "*Mark this page as interesting"* in the menubar. WebWatcher stores this information and returns a list of 10 pages which WebWatcher estimates to be closely related (figure 5)") Joachims at pp. 1-3 and FIGS.

3-5. Thus, the display of the "ILPNET" webpage [first segment] is displayed in response to a user selecting the suggested hyperlink shown in Figure 3.

CLAIM 37

A method as in claim 20, wherein at least some of the acquired data is digital data, the step of acquiring data further comprising the step of acquiring digital data.

Joachims discloses that at least some of the acquired data is digital data, the step of acquiring data further comprising the step of acquiring digital data (*e.g.,* "WebWatcher [], an agent which assists users in locating information on the WWW or searches autonomously on their behalf.") Joachims p. 1. The WebWatcher program is something that facilitates the gathering of information using the Internet. Joachims at p. 1. Whether it is hyperlinks or the webpages themselves, it is inherent that the data is computer-readable and in digital form.

CLAIM 63

A computer readable medium encoded with one or more computer programs for enabling acquisition and review of a body of information, wherein the body of information includes a plurality of segments, each segment representing a defined set of information in the body of information, comprising:

Joachims discloses computer readable medium encoded with one or more computer programs for enabling acquisition and review of a body of information, wherein the body of information includes a plurality of segments, each segment representing a defined set of information in the body of information (*e.g.,* "WebWatcher [], an agent which assists users in locating information on the WWW or searches autonomously on their behalf.") Joachims at p. 1. Thus, Joachims discloses a method for helping a user review and find [acquire] information, such as webpages [segments] on the World Wide Web [a body of information], that is determined to be of interest to the user or that is related to a webpage the user is currently viewing. Joachims at Abstract and p. 1.

The WebWatcher program disclosed by Joachims is something that facilitates the gathering of information, such as webpages, from the Internet [network]. *See* Joachims at Abstract. Thus, it is inherent that computer-readable media implemented on a computer is used.

instructions for acquiring data representing the body of information;

Joachims discloses instructions for acquiring data representing the body of information (*e.g.*, "Figures 1 to 5 illustrate the sequence of web pages a user visits in a typical example."; "an algorithm which identifies pages that are related to a given page using only hypertext structure.") Joachims at p. 1 and Abstract. One skilled in the art would understand that Joachims' WebWatcher system necessarily discloses acquiring webpage data [data representing the body of information] because acquiring the data would be a necessary step before the data can be displayed and analyzed. *See* Joachims at p. 1-3. Moreover, the Patent Owner's infringement contentions in the Underlying Litigation indicate that based on the display of data, it is "apparent" that the data is acquired. (OTH-W Interval Ex. E-2 at Slide 8) Using the Patent Owner's own contention, in order for Joachims to generate the images shown, for example in Figs. 1-5, the computer displaying that data must first acquire the data.

Thus, Joachims discloses instructions for acquiring webpage data [data representing the body of information].

instructions for storing the acquired data;

Joachims discloses instructions for storing the acquired data (*e.g.*, "Figures 1 to 5 illustrate the sequence of web pages a user visits in a typical example."; "an algorithm which identifies pages that are related to a given page using only hypertext structure.") Joachims at p. 1 and Abstract. One skilled in the art would understand that Joachims' WebWatcher system necessarily discloses storing the webpage data [acquired data] because storing the data would be a necessary step before the data can be displayed and analyzed. *See* Joachims at p. 1-3. Moreover, the Patent Owner's infringement contentions in the Underlying Litigation indicate that if the data is acquired and displayed, it is "apparent" that the data is stored. (OTH-W Interval Ex. E-2 at Slide 8) Using the Patent Owner's own contention, in order for Joachims to generate the images shown, for example in Joachims Figs. 1-5, the computer displaying that data must store the data (e.g., in memory accessible by the processor and program controlling the display in order to generate the display).

Thus, Joachims discloses instructions for storing webpage data [data representing the body of information].

instructions for generating a display of a first segment of the body of information from data that is part of the stored data;

Joachims discloses instructions for generating a display of a first segment of the body of information from data that is part of the stored data (*e.g.*, "Figures 1 to 5 illustrate the sequence of web pages a user visits in a typical example."; "In our example the user follows WebWatcher's advice and takes the "ILPNET" hyperlink. She arrives at the page shown in figure 4."; "In our scenario the user is particularly interested in the "ILPNet" page. So she clicks on the button "*Mark this page as interesting"* in the menubar. WebWatcher stores this information and returns a list of 10 pages which WebWatcher estimates to be closely related (figure 5)") Joachims at pp. 1-3 and FIGS. 3-5.

Thus, Joachims discloses generating a display of the "ILPNet" page [first segment]. *See* Joachims at FIG. 5.

instructions for comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related; and

There are two ways that Joachims discloses instructions for comparing data representing a segment of the body of information to data representing a different segment of the body of information to determine whether, according to one or more predetermined criteria, the compared segments are related.

First, Joachims discloses: (1) two hyperlinks – "data representing" two different "segment[s] of the body of information," *i.e.*, two separate webpages; (2) comparing the hyperlinks to see if they both have a particular attribute such as "appears on webpage X (the predetermined criterion); and (3) if so, concluding that the linked-to webpages are related, *i.e.*, "of similar interest." *See* Joachims at p. 3. Specifically, Joachims discloses that "two webpages are of similar interest if some third page points to them both." Joachims at p. 3.

Second, Joachims discloses using the "nearest neighbor" method to generate a matrix showing the relationship between webpages, where the columns of the matrix could correspond to "data representing a segment of the body of information" – each column, after all, provides a "fingerprint" of a given webpage in that it identifies where hyperlinks to that given webpage are located. Those columns are then compared to the column for a webpage of interest (*e.g.*, the WWatcher page) to "find the ones most similar to the [of-interest webpage's] column." To the extent some number n of so-related webpages are returned by the grouping (the predetermined criteria), the webpage is considered to be related. Joachims at FIG. 6 and pp. 3 and 4.

instructions for generating a display of a portion of, or a representation of, a second segment of the body of information from data that is part of the stored data, wherein the display of the portion or representation of the second segment is generated in response to the display of a first segment to which the second segment is related.

Joachims discloses instructions for generating a display of a portion of, or a representation of, a second segment of the body of information from data that is part of the stored data, wherein the display of the portion or representation of the second segment is generated in response to the display of a first segment to which the second segment is related (*e.g.*, "Figures 1 to 5 illustrate the sequence of web pages a user visits in a typical example."; "In our example the user follows WebWatcher's advice and takes the "ILPNET" hyperlink. She arrives at the page shown in figure 4."; "In our scenario the user is particularly interested in the "ILPNet" page. So she clicks on the button "*Mark this page as interesting"* in the menubar. WebWatcher stores this information and returns a list of 10 pages which WebWatcher estimates to be closely related (figure 5)"). Joachims at pp. 1-3 and FIGS. 3-5.

Similar to the '507 patent's description of a text story being displayed "in response to" a television news story (" . . . a representation of the related information can be displayed in response to . . . the original information display. For instance . . . one or more text news stories . . . that are related . . . to a television news story being displayed can be automatically identified and a portion of the related text news story or stories displayed so that the story or stories can be reviewed for additional information . . . ." The '507 patent at column 3:45-54.), Joachims describes identifying and displaying "a list of 10 pages which WebWatcher estimates to be closely related [to the ILPNET webpage]" together with the ILPNET webpage. Joachims at p. 3.

Thus, as described above and shown in Figure 5, Joachims discloses instructions for displaying "a list of 10 pages which WebWatcher estimates to be closely related [to the ILPNET webpage]" [second segment] in response to the "ILPNET" webpage [first segment] being displayed. Joachims at p. 3.

CLAIM 64

A computer readable medium as in claim 63, further comprising instructions for causing the display of the portion or representation of the second segment to occur substantially coextensive in time with the display of the related first segment.

Joachims discloses instructions for causing the display of the portion or representation of the second segment to occur substantially coextensive in time with the display of the related first segment (*e.g.,* "In our scenario the user is particularly interested in the "ILPNet" page. So she clicks on the button "*Mark this page as interesting"* in the menubar. WebWatcher stores this information and returns a list of 10 pages which WebWatcher estimates to be closely related (figure 5)"). Joachims at p. 1-3 and FIG. 5.

Thus, as shown in Figure 5, the "list of 10 pages which WebWatcher estimates to be closely related" [second segment] is displayed together with the "ILPNET" webpage [first segment]. Joachims at p. 3 and FIG. 5.

CLAIM 65

A computer readable medium as in claim 63, wherein: the instructions for acquiring data representing the body of information further comprise instructions for acquiring audiovisual data representing at least a portion of the body of information, wherein the first and second segments are represented by audiovisual data; and

The Joachims reference dates from 1995. In that time period, webpages were becoming more and more graphics-oriented, and it has been observed that that graphics capability was in part responsible for the explosive growth of Internet/Worldwide Web usage. See, for example, OTH-C, which describes the Mosaic Internet browser and illustrates how images from the Internet can be downloaded and displayed. OTH-C at p. 58. Therefore, having the first and second segments be audiovisual in nature was inherent in the use of the Mosaic browser as disclosed by Joachims.

the instructions for generating a display of a first segment of the body of information further comprise instruction for generating an audiovisual display of the first segment.

The Joachims reference dates from 1995. In that time period, webpages were becoming more and more graphics-oriented, and it has been observed that that graphics capability was in part responsible for the explosive growth of Internet/Worldwide Web usage. See, for example, OTH-C, which describes the Mosaic Internet browser and illustrates how images from the Internet can be downloaded and displayed. OTH-C at p. 58. Therefore, having the first and second segments be audiovisual in nature was inherent in the use of the Mosaic browser as disclosed by Joachims.

CLAIM 66

A computer readable medium as in claim 65, further comprising instructions for identifying the selection of a second segment for which a portion or representation is being displayed, wherein selection of such second segment causes an audiovisual display of the selected second segment to be produced.

Joachims discloses instructions for identifying the selection of a second segment for which a portion or representation is being displayed, wherein selection of such second segment causes an audiovisual display of the selected second segment to be produced (*e.g.*, "Figures 1 to 5 illustrate the sequence of web pages a user visits in a typical example."; "In our example the user follows WebWatcher's advice and takes the "ILPNET" hyperlink. She arrives at the page shown in figure 4."; "In our scenario the user is particularly interested in the "ILPNet" page. So she clicks on the button "*Mark this page as interesting"* in the menubar. WebWatcher stores this information and returns a list of 10 pages which WebWatcher estimates to be closely related (figure 5)"). Joachims at pp. 1-3 and FIGS. 3-5.

Thus, Joachims discloses that selecting a hyperlink, such as those provided in the "list of 10 pages which WebWatcher estimates to be closely related (figure 5)," causes the selected webpage to be displayed.

CLAIM 67

A computer readable medium as in claim 63, wherein: the instructions for acquiring data representing the body of information further comprise instructions for acquiring audiovisual data representing at least a portion of the body of information;

The Joachims reference dates from 1995. In that time period, webpages were becoming more and more graphics-oriented, and it has been observed that that graphics capability was in part responsible for the explosive growth of Internet/Worldwide Web usage. See, for example, OTH-C, which describes the Mosaic Internet browser and illustrates how images from the Internet can be downloaded and displayed. OTH-C at p. 58. Therefore, having the first and second segments be audiovisual in nature was inherent in the use of the Mosaic browser as disclosed by Joachims.

the instructions for generating a display of a first segment of the body of information further comprise instructions for generating an audiovisual display of the first segment; and

The Joachims reference dates from 1995. In that time period, webpages were becoming more and more graphics-oriented, and it has been observed that that graphics capability was in part responsible for the explosive growth of Internet/Worldwide Web usage. See, for example, OTH-C, which describes the Mosaic Internet browser and illustrates how images from the Internet can be downloaded and displayed. OTH-C at p. 58. Therefore, having the first and second segments be audiovisual in nature was inherent in the use of the Mosaic browser as disclosed by Joachims.

the instructions for generating a display of a portion of, or a representation of, a second segment of the body of information further comprise instructions for generating a text display of the portion or representation of the second segment.

Joachims discloses instructions for generating a display of a portion of, or a representation of, a second segment of the body of information further comprises the step of generating a text display of the portion or representation of the second segment (*e.g.*, "Figures 1 to 5 illustrate the sequence of web pages a user visits in a typical example."; "In our example the user follows WebWatcher's advice and takes the "ILPNET" hyperlink. She arrives at the page shown in figure 4."; "In our scenario the user is particularly interested in the "ILPNet" page. So she clicks on the button "*Mark this page as interesting"* in the menubar. WebWatcher stores this information and returns a list of 10 pages which WebWatcher estimates to be closely related (figure 5)"). Joachims at pp. 1-3 and FIGS. 3-5. As can be seen in Figure 5, the "list of 10 pages which WebWatcher estimates to be closely related (figure 5)" is displayed as text.

CLAIM 74

A computer readable medium as in claim 63, wherein the instructions for acquiring data further comprise instructions for acquiring computer-readable data files over a computer network from an information providing site that is part of that network.

Joachims discloses instructions for acquiring computer-readable data files over a computer network from an information providing site that is part of that network (*e.g.,* "WebWatcher [], an agent which assists users in locating information on the WWW or searches autonomously on their behalf.") Joachims p. 1. In particular, the WebWatcher program disclosed by Joachims is something that facilitates the gathering of information, such as webpages, from the Internet [network]. *See* Joachims at Abstract. Whether it is hyperlinks or

the webpages themselves, the data is inherently computer-readable and is acquired over a computer network from an information providing site.

CLAIM 77

A computer readable medium as in claim 63, further comprising instructions for identifying an instruction from a user to begin displaying at least some of the body of information, wherein the display of a first segment is begun in response to the user instruction.

Joachims discloses instructions for identifying an instruction from a user to begin displaying at least some of the body of information, wherein the display of a first segment is begun in response to the user instruction (*e.g.,* "Figures 1 to 5 illustrate the sequence of web pages a user visits in a typical example."; "In our example the user follows WebWatcher's advice and takes the "ILPNET" hyperlink. She arrives at the page shown in figure 4."; "In our scenario the user is particularly interested in the "ILPNet" page. So she clicks on the button "*Mark this page as interesting"* in the menubar. WebWatcher stores this information and returns a list of 10 pages which WebWatcher estimates to be closely related (figure 5)") Joachims at pp. 1-3 and FIGS. 3-5. Thus, the display of the "ILPNET" webpage [first segment] is displayed in response to a user selecting the suggested hyperlink shown in Figure 3.

CLAIM 80

A computer readable medium as in claim 63, wherein at least some of the acquired data is digital data, the instructions for acquiring data further comprising instructions for acquiring digital data.

Joachims discloses that at least some of the acquired data is digital data, the step of acquiring data further comprising the step of acquiring digital data (*e.g.,* "WebWatcher [], an agent which assists users in locating information on the WWW or searches autonomously on their behalf.") Joachims p. 1. The WebWatcher program is something that facilitates the gathering of information using the Internet. Joachims at p. 1. Whether it is hyperlinks or the webpages themselves, it is inherent that the data is computer-readable and in digital form.

I. JOACHIMS IN VIEW OF BENDER RENDERS OBVIOUS CLAIMS 27 AND 70 OF THE '507 PATENT

Please see the attached Exhibit CC-I presenting claim charts comparing Joachims in view of Bender with claims 27 and 70 of the '507 patent.

REASONS TO COMBINE

Both Joachims and Bender relate to systems and methods for collecting and reviewing information, comparing data representing that information to identify related information, and presenting the related information to a user in a computer based interface. At the time of the alleged invention, it would have been obvious to one of ordinary skill in the art to combine the teachings of Bender with Joachims to identify and compare subject matter content of segments of a body of information (claims 23 and 70), which is disclosed by Bender. For example, Bender describes comparing keywords lists representing subject matter content of the news wire stories (a second segment) and television broadcasts (a first segment) closed caption data and using a predefined threshold for keyword matching (e.g., four words as an example) to determine whether the segments are related. *See e.g.*, (Bender at pp. 82-83 (describing keyword matching process)("The primary function of Network Plus is to correlate news wire stories and live broadcasts. . . . A keyword matching scheme was chosen, based upon empirical evidence that there exists a sufficient correspondence between words found in the transcript and words found in the wire service stories. If the number of words common to both the transcript and a trial story exceeded some threshold, the two were designated as related. . . . A threshold of four words worked well in this experiment. . . .")(emphasis added).

It would have been obvious to a person of ordinary skill in the art to use the keyword matching method, as taught by Bender, to similarly compare subject matter content of webpages in Joachims since Joachims and Bender relate to similar methods and systems for identifying and presenting related information to a user. Moreover, the combination of Joachims and Bender yields a predictable result, and one of ordinary skill in the art would have been capable of combining these systems to achieve the expected result of determining subject matter content similarities between webpages using a keyword matching method.

CLAIM 27

> **A method as in claim 20, further comprising the step of identifying the subject matter content of a segment of the body of information, wherein the step of comparing further comprises the step of determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined.**

Joachims in view of Bender discloses identifying the subject matter content of a segment of the body of information, wherein the step of comparing further comprises the step of determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined.

For example, Bender discloses comparing keywords lists representing subject matter content of the news wire stories (a second segment) and television broadcasts (a first segment) closed caption data and using a predefined threshold for keyword matching (e.g., four words as an example) to determine whether the segments are related. *See e.g.*, (Bender at pp. 82-83 (describing keyword matching process)("The primary function of Network Plus is to correlate news wire stories and live broadcasts. . . . A keyword matching scheme was chosen, based upon empirical evidence that there exists a sufficient correspondence between words found in the transcript and words found in the wire service stories. If the number of words common to both the transcript and a trial story exceeded some threshold, the two were designated as related. . . . A threshold of four words worked well in this experiment. . . .")(emphasis added).

It would have been obvious to a person of ordinary skill in the art to use the keyword matching method, as taught by Bender, to similarly compare subject matter content of webpages in Joachims since Joachims and Bender relate to similar methods and systems for identifying and presenting related information to a user. Moreover, the combination of Joachims and Bender yields a predictable result, and one of ordinary skill in the art would have been capable of combining these systems to achieve the expected result of determining subject matter content similarities between webpages using a keyword matching method.

CLAIM 70

> **A computer readable medium as in claim 63, further comprising instructions for identifying the subject matter content of a segment of the body of information, wherein the instructions for comparing further comprise instructions for determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined.**

Joachims in view of Bender discloses instructions for identifying the subject matter content of a segment of the body of information, wherein the step of comparing further

comprises the step of determining the similarity of the subject matter content of a segment to the subject matter content of a different segment, the predetermined criteria including a predefined degree of similarity with respect to which the relatedness of the compared segments is determined.

For example, Bender discloses comparing keywords lists representing subject matter content of the news wire stories (a second segment) and television broadcasts (a first segment) closed caption data and using a predefined threshold for keyword matching (e.g., four words as an example) to determine whether the segments are related. *See e.g.*, (Bender at pp. 82-83 (describing keyword matching process)("The primary function of Network Plus is to correlate news wire stories and live broadcasts. . . . A keyword matching scheme was chosen, based upon empirical evidence that there exists a sufficient correspondence between words found in the transcript and words found in the wire service stories. If the number of words common to both the transcript and a trial story exceeded some threshold, the two were designated as related. . . . A threshold of four words worked well in this experiment. . . .")(emphasis added).

It would have been obvious to a person of ordinary skill in the art to use the keyword matching method, as taught by Bender, to similarly compare subject matter content of webpages in Joachims since Joachims and Bender relate to similar methods and systems for identifying and presenting related information to a user. Moreover, the combination of Joachims and Bender yields a predictable result, and one of ordinary skill in the art would have been capable of combining these systems to achieve the expected result of determining subject matter content similarities between webpages using a keyword matching method.

J. JOACHIMS IN VIEW OF BENDER AND PATENT OWNER ADMISSIONS RENDERS OBVIOUS CLAIMS 28 AND 71 OF THE '507 PATENT

Please see the attached Exhibit CC-J presenting claim charts comparing Joachims in view of Bender and Patent Owner admissions with claims 28 and 71 of the '507 patent.

REASONS TO COMBINE

As discussed above, one of skill in the art would have had reason to combine Joachims with the teachings of Bender. For the reasons that follow, one of skill in the art would also have had reason to combine Joachims with the teachings of the admitted prior art from the '507 patent.

Joachims is directed towards a method of identifying related information and presenting such information to the user (*e.g.*, "an algorithm which identifies pages that are related to a given page using only hypertext structure"). Joachims at Abstract and p. 1. Similarly, the '507 patent is directed toward identifying and displaying news stories that are related to a television news program. '507 patent at Abstract. The '507 patent discloses that relevance feedback can be used to determine similarities between two sets of information (*e.g.*, "The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). Notably, the '507 patent states (emphasis added) at 28:36-38, that "[t]he degree of similarity can be determined using <u>any</u> appropriate method, <u>such as, for example</u>, relevance feedback." In other words, the '507 patent itself makes clear that there is nothing particularly significant or important – in terms of imparting patentability (either novelty or nonobviousness) to a claim – about using relevance feedback to determine similarity, and it is just one of multiple techniques that could be used. '507 patent at 28:55-29:3.[25]

A person of ordinary skill in the art, looking for a method of determining similarities between two information sources, such as the webpages disclosed in Joachims, could have used the relevance feedback method of the prior art as discussed in the '507 patent. Thus, it would have been an obvious choice to use a relevance feedback method – as one of multiple methods that could be used just as well – to compare information in Joachims since Joachims and the admissions relate to well known methods of comparing information. Moreover, the combination of Joachims with Bender and the admissions by the Patent Owner yields a predictable result, and one of ordinary skill in the art would clearly be capable of combining these systems to achieve the expected result of determining similarities between two information sources.

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[25] Patent owner also admits that the prior art incorporated by reference into the '507 patent touts the benefits of using relevance feedback. *See, e.g.,* "Improving Retrieval Performance by Relevance Feedback," Salton, G., Journal of the American Society for Information Science, vol. 41, no. 4, pp. 288-297 ("Salton"); *see also* "The Effect of Adding Relevance Information in a Relevance Feedback Environment," Buckley, C., et al., Proceedings of 17th International Conference on Research and Development in Information Retrieval, DIGIR 94, Springer-verlag (Germany), 1994, pp. 292-300 ("Buckley").

CLAIM 28

A method as in claim 27, wherein the step of determining the similarity of the subject matter of segments further comprises the step of performing a relevance feedback method.

The '507 patent includes admissions that the use of relevance feedback methods to compare text was well known in the art. *See e.g.*, '507 patent at 28:55-29:3 ("The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). Notably, the '507 patent states (emphasis added) at 28:36-38, that "[t]he degree of similarity can be determined using any appropriate method, such as, for example, relevance feedback." In other words, the '507 patent itself makes clear that there is nothing particularly significant or important – in terms of imparting patentability (either novelty or nonobviousness) to a claim – about using relevance feedback to determine similarity, and it is just one of multiple techniques that could be used. As explained above, these admissions can be used in combination with prior patents and printed publications to establish an SNQ. *See*: MPEP § 2617(III).[26]

Moreover, it would have been an obvious choice to use a relevance feedback method – as one of multiple methods that could be used just as well – to compare information in Joachims since Joachims and the admissions relate to well known methods of comparing information. Additionally, the combination of Joachims and the admissions by the Patent Owner yields a predictable result, and one of ordinary skill in the art would clearly be capable of combining these systems to achieve the expected result of determining similarities between two information sources.

CLAIM 71

A computer readable medium as in claim 70, wherein the instructions for determining the similarity of the subject matter of segments further comprise instructions for performing a relevance feedback method.

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[26] Moreover, the '507 Patent also discloses that the degree of similarity can be determined using any appropriate method, thus further confirming that relevance feedback does not provide a basis to distinguish the claimed invention. As such, Bender either alone or in combination with the Patent Owner's admissions and/or the incorporated Salton and Buckley references renders claim 28 obvious.

The '507 patent includes admissions that the use of relevance feedback methods to compare text was well known in the art. *See e.g.*, '507 patent at 28:55-29:3 ("The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). Notably, the '507 patent states (emphasis added) at 28:36-38, that "[t]he degree of similarity can be determined using any appropriate method, such as, for example, relevance feedback." In other words, the '507 patent itself makes clear that there is nothing particularly significant or important – in terms of imparting patentability (either novelty or nonobviousness) to a claim – about using relevance feedback to determine similarity, and it is just one of multiple techniques that could be used. As explained above, these admissions can be used in combination with prior patents and printed publications to establish an SNQ. *See*: MPEP § 2617(III).[27]

Moreover, it would have been an obvious choice to use a relevance feedback method – as one of multiple methods that could be used just as well – to compare information in Joachims since Joachims and the admissions relate to well known methods of comparing information. Additionally, the combination of Joachims and the admissions by the Patent Owner yields a predictable result, and one of ordinary skill in the art would clearly be capable of combining these systems to achieve the expected result of determining similarities between two information sources.

K. MASAND ANTICIPATES CLAIMS 39, 40, 43, 82, 83, AND 86 OF THE '507 PATENT

Please see the attached Exhibit CC-K presenting claim charts comparing Masand with claims 39, 40, 43, 82, 83, and 86 of the '507 patent.

CLAIM 39

A method for categorizing according to subject matter an uncategorized segment of a body of information that includes a plurality of segments, each

[27] Moreover, the '507 Patent also discloses that the degree of similarity can be determined using any appropriate method, thus further confirming that relevance feedback does not provide a basis to distinguish the claimed invention. As such, Bender either alone or in combination with the Patent Owner's admissions and/or the incorporated Salton and Buckley references renders claim 71 obvious.

segment representing a defined set of information in the body of information, one or more segments of the body of information having previously been categorized by identifying each of the one or more segments with one or more subject matter categories, the method comprising the steps of:

Masand teaches a method for categorizing according to subject matter an uncategorized segment of a body of information that includes a plurality of segments, each segment representing a defined set of information in the body of information, one or more segments of the body of information having previously been categorized by identifying each of the one or more segments with one or more subject matter categories.

For example, Masand discloses a body of information comprising a plurality of segments, such as news articles from the Dow Jones Press Release News Wire, that includes uncategorized documents ("[e]ach day editors at Dow Jones assign codes to hundreds of stories originating from diverse sources such as newspapers, magazines, newswires, and press releases") and previously categorized documents that have been assigned to one or more of 350 category codes ("Using an already coded training database of about 50,000 stories from the Dow Jones Press Release News Wire . . . ." (Masand at Abstract); "The coding task consists of assigning one or more codes to a text document, from a possible set of about 350 codes." (Masand at p. 59)).

Masand further discloses a method for categorizing the uncategorized stories by subject matter by assigning to each story "distinct codes, grouped into seven [sic] categories: industry, market sector, product, subject, government agency, and region." Masand at p. 59. (emphasis added.) The category codes are assigned based on codes of related previously categorized documents ("Using an already coded training database of about 50,000 stories from the Dow Jones Press Release News Wire, and SEEKER [Stanfill] (a text retrieval system that supports relevance feedback) as the underlying match engine, codes are assigned to new, unseen stories . . . .") Masand at p. 59.

Thus, Masand discloses categorizing by subject matter the uncategorized news stories of a body of information based on category codes assigned to previously categorized news stories of the body of information.

determining the degree of similarity between the subject matter content of the uncategorized segment and the subject matter content of each of the previously categorized segments;

Masand discloses determining the degree of similarity between the subject matter content of the uncategorized segment and the subject matter content of each of the previously categorized segments.

For example, Masand discloses "a method for classifying news stories using Memory Based Reasoning (MBR) (a k-nearest neighbor method)." Masand at p. 59. The MBR method includes "find[ing] the near matches for each document to be classified. This is done by constructing a relevance feedback query out of the text of the document, including both words and capitalized pairs. This query returns a weighted list of near matches (see Fig. 4)." Masand at p. 61. Thus, Masand discloses using a relevance feedback query constructed from the text of a new document to search against the documents contained in the database of previously categorized stories. *Id.* at 61

Masand further discloses determining similarity scores (i.e., a degree of similarity) between the new story and each of the previously categorized stories. Masand at p. 61 ("[c]odes are assigned weights by summing similarity scores from the near matches.") (emphasis added). Fig. 4 shows the determined degree of similarity ("score") between an uncategorized news story and each of the eleven "nearest neighbors" in the previously categorized documents.

FIGURE 4 Sample News Story with Eleven Nearest Neighbors

Score	Size	Headline
1000	3k	Daimler-Benz unit signs $11,000,000 agreement for Hitachi Data
929	2k	MCI signs agreement for Hitachi Data Systems disk drives
654	2k	Delta Air Lines takes delivery of industry's first . . .
631	2k	Crowley Maritime Corp. installs HDS EX
607	2k	HDS announces 15 percent performance boost for EX Series processors
603	3k	L.M. Ericsson installs two Hitachi Data Systems 420 mainframes
571	2k	Gaz de France installs HDS EX 420 mainframe
568	5k	Hitachi Data Systems announces two new models of EX Series mainframes
568	2k	HDS announces ESA/390 schedule
543	2k	SPRINT installs HDS EX 420
503	4k	Hitachi DataSystems announces new models of EX Series mainframes
485	4k	HDS announces upgrades for installed 7690 subsystems

Masand at p. 61.

Thus, Masand discloses determining similarity scores between the subject matter of an uncategorized document (*e.g.,* news story) and the subject matter of each document of a set of previously categorized documents (*e.g.,* previously categorized news stories) based on the

contents of the documents ("constructing a relevance feedback query out of the text of the document, including both words and capitalized pairs") Masand at p. 61.

identifying one or more of the previously categorized segments as relevant to the uncategorized segment based upon the determined degrees of similarity of subject matter content between the uncategorized segment and the previously categorized segments; and

Masand discloses identifying one or more of the previously categorized segments as relevant to the uncategorized segment based upon the determined degrees of similarity of subject matter content between the uncategorized segment and the previously categorized segments.

For example, as discussed above, Masand discloses determining a degree of similarity ("score") between an uncategorized news story and each of the previously categorized documents by "constructing a relevance feedback query out of the text of the document, including both words and capitalized pairs. This query returns a weighted list of near matches (see Fig. 4)." Masand at p. 61. (emphasis added.) Additionally, "Fig. 4 shows the headlines and the normalized scores for the example used in Fig. 2 and the first few near matches from the relevance feedback search." Masand at p. 61 (emphasis added); s*ee also*, Fig. 4 (reproduced above, which shows an uncategorized news story and the eleven "nearest neighbors" in the previously categorized documents).

Based on the results of the relevance feedback query, Masand discloses identifying the *k*-nearest matches and "assign[ing] codes to the unknown document by combining the codes assigned to the k nearest matches; for these experiments, we used up to 11 nearest neighbors." Masand at p. 61. (emphasis added.)

Thus, Masand discloses identifying *k* previously categorized documents as being relevant to the uncategorized document based on the determined similarity scores between the uncategorized document and the previously categorized documents.

selecting one or more subject matter categories with which to identify the uncategorized segment based upon the subject matter categories used to identify the relevant previously categorized segments.

Masand teaches selecting one or more subject matter categories with which to identify the uncategorized segment based upon the subject matter categories used to identify the relevant previously categorized segments.

For example, as discussed above, Masand discloses determining a degree of similarity ("score") between an uncategorized news story and each of the previously categorized documents by "constructing a relevance feedback query out of the text of the document, including both words and capitalized pairs. This query returns a weighted list of near matches (see Fig. 4)." Masand at p. 61. Masand further discloses that the "[c]odes are assigned weights by summing similarity scores from the near matches. Finally we choose the best codes based on a score threshold. Fig. 4 shows the headlines and the normalized scores for the example used in Fig. 2 and the first few near matches from the relevance feedback search." Masand at p. 61 (emphasis added); s*ee also*, Fig. 4 (reproduced above). In one particular example, Masand discloses "assign[ing] codes to the unknown document by combining the codes assigned to the k nearest matches; for these experiments, we used up to 11 nearest neighbors." Masand at p. 61. (emphasis added.) The codes may be "grouped into seven [sic] categories: industry, market sector, product, subject, government agency, and region." Masand at p. 59 (emphasis added).

Thus, Masand discloses selecting one or more subject matter category codes for an uncategorized document based on the category codes assigned to the *K*-nearest (i.e., relevant) documents.

CLAIM 40

A method as in claim 39, wherein the step of determining the degree of similarity is accomplished using a relevance feedback method.

Masand explicitly discloses wherein the step of determining the degree of similarity is accomplished using a relevance feedback method. For example, Masand discloses "a method for classifying news stories using Memory Based Reasoning (MBR) (a k-nearest neighbor method)." Masand at p. 59. Masand further dicloses that "[f]ollowing the general approach of MBR, we find the near matches for each document to be classified. This is done by constructing a relevance feedback query out of the text of the document, including both words and capitalized pairs. This query returns a weighted list of near matches (see Fig. 4)." Masand at p. 61. (emphasis added.)

Thus, Masand discloses determining similarity scores between the subject matter of an uncategorized document (*e.g.,* news story) and the subject matter of each document of a set of previously categorized documents (*e.g.,* previously categorized news stories) by "constructing a

relevance feedback query out of the text of the document, including both words and capitalized pairs." Masand at p. 61. (emphasis added.)

CLAIM 43

> **A method as in claim 39, wherein the uncategorized segment has been acquired from a first data source and the previously categorized segment or segments have been acquired from a second data source that is different than the first data source.**

Masand discloses wherein the uncategorized segment has been acquired from a first data source and the previously categorized segment or segments have been acquired from a second data source that is different than the first data source.

For example, Masand discloses a body of information including a plurality of segments, such as news articles from the Dow Jones Press Release News Wire, that includes uncategorized documents ("[e]ach day editors at Dow Jones assign codes to hundreds of stories originating from diverse sources such as newspapers, magazines, newswires, and press releases") (Masand at p. 59) and previously categorized documents that have been assigned to one or more of 350 category codes ("Using an already coded training database of about 50,000 stories from the Dow Jones Press Release News Wire . . . .") (Masand at Abstract). Thus, Masand discloses that previously categorized documents may be acquired from the Dow Jones Press Release News Wire.

Masand further discloses that the uncategorized stories from the Dow Jones Press Release News Wire may include "stories originating from diverse sources such as newspapers, magazines, newswires, and press releases." Masand at p. 59. Additionally, Masand discloses that "[t]he application of MBR may also be relevant to other domains (such as OCR, patient records, financial assessments) where such coded free text databases are already available." Masand at p. 64.

Thus, Masand discloses a method in which an uncategorized document was acquired from a first data source, such as a newspaper, magazine, newswire, press release, or other text database, and the previously categorized documents were acquired from a different data source, such as a newspaper, magazine, newswire, press release, other text database, or from the existing Dow Jones Database.

CLAIM 82

A computer readable medium encoded with one or more computer programs for enabling categorization according to subject matter of an uncategorized segment of a body of information that includes a plurality of segments, each segment representing a defined set of information in the body of information, one or more segments having previously been categorized by identifying each of the one or more segments with one or more subject matter categories, comprising:

Masand discloses a computer readable medium encoded with one or more computer programs for enabling categorization according to subject matter of an uncategorized segment of a body of information that includes a plurality of segments, each segment representing a defined set of information in the body of information, one or more segments having previously been categorized by identifying each of the one or more segments with one or more subject matter categories.

For example, Masand discloses a body of information comprising a plurality of segments, such as news articles from the Dow Jones Press Release News Wire, that includes uncategorized documents ("[e]ach day editors at Dow Jones assign codes to hundreds of stories originating from diverse sources such as newspapers, magazines, newswires, and press releases") and previously categorized documents that have been assigned to one or more of 350 category codes ("Using an already coded training database of about 50,000 stories from the Dow Jones Press Release News Wire . . . ." (Masand at Abstract); "The coding tasks consists of assigning one or more codes to a text document, from a possible set of about 350 codes." (Masand at p. 59)).

Masand further discloses a method for categorizing the uncategorized stories by subject matter by assigning to each story "distinct codes, grouped into seven [sic] categories: industry, market sector, product, subject, government agency, and region." Masand at p. 59 (emphasis added.) The category codes are assigned based on codes of related previously categorized documents ("Using an already coded training database of about 50,000 stories from the Dow Jones Press Release News Wire, and SEEKER [Stanfill] (a text retrieval system that supports relevance feedback) as the underlying match engine, codes are assigned to new, unseen stories . . . .") Masand at p. 59.

With respect to being embodied as a computer program stored on a computer readable medium, Masand discloses that the "method for classifying news stories using Memory Based Reasoning (MBR) (a k-nearest neighbor method)[] does not require manual topic definitions." Masand at Abstract (emphasis added). Masand further discloses that the SEEKER text retrieval

system that was used as the underlying match engine was executed on a "4k CM-2 Connection Machine System." Masand at p. 62. As such, it is inherent that the method disclosed by Masand is embodied as a computer program stored on a computer readable medium.

Thus, Masand discloses a computer readable medium encoded with one or more computer programs for enabling categorization according to subject matter the uncategorized news stories of a body of information based on category codes assigned to previously categorized news stories of the body of information.

instructions for determining the degree of similarity between the subject matter content of the uncategorized segment and the subject matter content of each of the previously categorized segments;

Masand discloses instructions for determining the degree of similarity between the subject matter content of the uncategorized segment and the subject matter content of each of the previously categorized segments.

For example, Masand discloses "a method for classifying news stories using Memory Based Reasoning (MBR) (a k-nearest neighbor method)." Masand at p. 59. The MBR method includes "find[ing] the near matches for each document to be classified. This is done by constructing a relevance feedback query out of the text of the document, including both words and capitalized pairs. This query returns a weighted list of near matches (see Fig. 4)." Masand at p. 61. Thus, Masand discloses using a relevance feedback query constructed from the text of a new document to search against the documents contained in the database of previously categorized stories. *Id.* at 61.

Masand further discloses determining similarity scores (i.e., a degree of similarity) between the new story and each of the previously categorized stories. Masand at p. 61 ("[c]odes are assigned weights by summing similarity scores from the near matches.") (emphasis added). Fig. 4 shows the determined degree of similarity ("score") between an uncategorized news story and each of the eleven "nearest neighbors" in the previously categorized documents.

FIGURE 5 Sample News Story with Eleven Nearest Neighbors

Score	Size	Headline
1000	2k	Daimler-Benz unit signs $11,000,000 agreement for Hitachi Data
920	2k	MCI signs agreement for Hitachi Data Systems disk drives
654	2k	Delta Air Lines takes delivery of industry's first . . .
631	2k	Crowley Maritime Corp. installs RDS EX
607	2k	RDS announces 15 percent performance boost for EX Series processors
604	2k	L.M. Ericsson installs two Hitachi Data Systems 420 mainframes
577	2k	Caz de France installs RDS EX 450 mainframe
568	3k	Hitachi Data Systems announces two new models of EX Series mainframes
568	2k	RDS announces ESA/390 schedule
545	3k	SPRINT installs RDS EX 450
545	4k	Hitachi DataSystems announces new model of EX Series mainframes
485	4k	RDS announces upgrades for installed 7890 subsystems

Masand at p. 61.

Thus, Masand discloses instructions for determining similarity scores between the subject matter of an uncategorized document (*e.g.,* news story) and the subject matter of each document of a set of previously categorized documents (*e.g.,* previously categorized news stories) by "constructing a relevance feedback query out of the text of the document, including both words and capitalized pairs." Masand at p. 61.

instructions for identifying one or more of the previously categorized segments as relevant to the uncategorized segment based upon the determined degrees of similarity of subject matter content between the uncategorized segment and the previously categorized segments; and

Masand discloses instructions for identifying one or more of the previously categorized segments as relevant to the uncategorized segment based upon the determined degrees of similarity of subject matter content between the uncategorized segment and the previously categorized segments.

For example, as discussed above, Masand discloses determining a degree of similarity ("score") between an uncategorized news story and each of the previously categorized documents by "constructing a relevance feedback query out of the text of the document, including both words and capitalized pairs. This query returns a weighted list of near matches (see Fig. 4)." Masand at p. 61. (emphasis added.) Additionally, "Fig. 4 shows the headlines and the normalized scores for the example used in Fig. 2 and the first few near matches from the

relevance feedback search." Masand at p. 61 (emphasis added); s*ee also*, Fig. 4 (reproduced above, which shows an uncategorized news story and the eleven "nearest neighbors" in the previously categorized documents).

Based on the results of the relevance feedback query, Masand discloses identifying the *k*-nearest matches and "assign[ing] codes to the unknown document by combining the codes assigned to the k nearest matches; for these experiments, we used up to 11 nearest neighbors." Masand at p. 61 (emphasis added.)

Thus, Masand discloses instructions for identifying *k* previously categorized documents as being relevant to the uncategorized document based on the determined similarity score between the uncategorized document and the previously categorized documents.

instructions for selecting one or more subject matter categories with which to identify the uncategorized segment based upon the subject matter categories used to identify the relevant previously categorized segments.

Masand discloses instructions for selecting one or more subject matter categories with which to identify the uncategorized segment based upon the subject matter categories used to identify the relevant previously categorized segments.

For example, as discussed above, Masand discloses determining a degree of similarity ("score") between an uncategorized news story and each of the previously categorized documents by "constructing a relevance feedback query out of the text of the document, including both words and capitalized pairs. This query returns a weighted list of near matches (see Fig. 4)." Masand at p. 61. Masand further discloses that the "[c]odes are assigned weights by summing similarity scores from the near matches. Finally we choose the best codes based on a score threshold. Fig. 4 shows the headlines and the normalized scores for the example used in Fig. 2 and the first few near matches from the relevance feedback search." Masand at p. 61 (emphasis added); s*ee also*, Fig. 4 (reproduced above). In one particular example, Masand discloses "assign[ing] codes to the unknown document by combining the codes assigned to the k nearest matches; for these experiments, we used up to 11 nearest neighbors." Masand at p. 61 (emphasis added). The codes may be "grouped into seven [sic] categories: industry, market sector, product, subject, government agency, and region." Masand at p. 59 (emphasis added).

Thus, Masand discloses instructions for selecting one or more subject matter category codes for assigning to an uncategorized document based on the category codes assigned to the *K*-nearest (i.e., relevant) documents.

CLAIM 83

A computer readable medium as in claim 82, wherein the instructions for determining the degree of similarity further comprise instructions for performing a relevance feedback method.

Masand explicitly discloses wherein the instructions for determining the degree of similarity further comprise instructions for performing a relevance feedback method. For example, Masand discloses "a method for classifying news stories using Memory Based Reasoning (MBR) (a k-nearest neighbor method)." Masand at p. 59. Masand further dicloses that "[f]ollowing the general approach of MBR, we find the near matches for each document to be classified. This is done by constructing a relevance feedback query out of the text of the document, including both words and capitalized pairs. This query returns a weighted list of near matches (see Fig. 4)." Masand at p. 61 (emphasis added).

Thus, Masand discloses instructions for determining similarity scores between the subject matter of an uncategorized document (*e.g.,* news story) and the subject matter of each document of a set of previously categorized documents (*e.g.,* previously categorized news stories) by "constructing a relevance feedback query out of the text of the document, including both words and capitalized pairs." Masand at p. 61 (emphasis added).

CLAIM 86

A computer readable medium as in claim 82, wherein the uncategorized segment has been acquired from a first data source and the previously categorized segment or segments have been acquired from a second data source that is different than the first data source.

Masand explicitly discloses wherein the uncategorized segment has been acquired from a first data source and the previously categorized segment or segments have been acquired from a second data source that is different than the first data source.

For example, Masand discloses a body of information including a plurality of segments, such as news articles from the Dow Jones Press Release News Wire, that includes uncategorized documents ("[e]ach day editors at Dow Jones assign codes to hundreds of stories originating

from diverse sources such as newspapers, magazines, newswires, and press releases") (Masand at p. 59) and previously categorized documents that have been assigned to one or more of 350 category codes ("Using an already coded training database of about 50,000 stories from the Dow Jones Press Release News Wire . . . .") (Masand at Abstract). Thus, Masand discloses that both uncategorized and previously categorized documents may be acquired from the Dow Jones Press Release News Wire. Thus, Masand discloses that previously categorized documents may be acquired from the Dow Jones Press Release News Wire.

Masand further discloses that the uncategorized stories from the Dow Jones Press Release News Wire may include "stories originating from diverse sources such as newspapers, magazines, newswires, and press releases." Masand at p. 59. Additionally, Masand discloses that "[t]he application of MBR may also be relevant to other domains (such as OCR, patient records, financial assessments) where such coded free text databases are already available." Masand at p. 64.

Thus, Masand discloses an uncategorized document that was acquired from a first data source, such as a newspaper, magazine, newswire, press release, or other text database, and previously categorized documents that were acquired from a different data source, such as a newspaper, magazine, newswire, press release, other text database, or from the existing Dow Jones Database.

L. IWAYAMA ANTICIPATES CLAIMS 39, 43, 82, AND 86 OF THE '507 PATENT

Please see the attached Exhibit CC-L presenting claim charts comparing Iwayama with claims 39, 43, 82, and 86 of the '507 patent.

CLAIM 39

> **A method for categorizing according to subject matter an uncategorized segment of a body of information that includes a plurality of segments, each segment representing a defined set of information in the body of information, one or more segments of the body of information having previously been categorized by identifying each of the one or more segments with one or more subject matter categories, the method comprising the steps of:**

Iwayama discloses a method for categorizing according to subject matter an uncategorized segment of a body of information that includes a plurality of segments, each segment representing a defined set of information in the body of information, one or more

segments of the body of information having previously been categorized by identifying each of the one or more segments with one or more subject matter categories.

For example, Iwayama discloses a body of information comprising a plurality of segments, such as a collection of Wall Street Journal articles, that includes uncategorized documents ("For WSJ, . . . all stories from '89/10/2 to '89/11/2 went into a test set of 3,087 documents") and previously categorized documents that have been assigned to one or more of 78 categories ("For WSJ, all stories that appeared from '89/7/25 to '89/9/29 went into a training set of 5,820 documents" (Iwayama at p. 276.); "Each of the articles is assigned some of 78 categories." (Iwayama at p. 275.)).

Iwayama further discloses assigning subject matter categories to the uncategorized documents based on categories of similar previously categorized documents ("one or more categories for a test document are searched for by using given training documents with known categories.") Iwayama at Abstract. Specifically, Iwayama discloses a categorization method comprising four steps: "1. Construct clusters C . . . 2. Calculate the posterior probability $P(c_i|d_{test})$ [i.e., degree of similarity] for a test document d_{test} and every cluster c_i . . . 3. Sort the posterior probabilities and extract the *K*-nearest training documents . . . 4. Assign to the test document categories based on the extracted *K*-nearest documents." Iwayama at p. 273.

In one particular embodiment disclosed by Iwayama, the method may be used to perform a full search, such as "MBR (Memory Based Reasoning) . . . for calculating a measure of similarity between a test document and every training document." Iwayama at p. 273. [28] In this example, "each training document belongs to a singleton cluster whose only member is the document itself." Iwayama at p. 274. Thus, the method categorizes the uncategorized documents (i.e., test documents) according to subject matter and involves "calculating a measure of similarity between a test document and every training document." Iwayama at p. 273.

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[28] Iwayama discloses multiple embodiments. A second embodiment, not addressed herein uses clusters of documents having similar categories and works in much the same way as the embodiment discussed herein because, as noted by Iwayama, clusters could be single documents and the methods, except for the clustering step, would be the same. In such case, "each training document belongs to a singleton cluster whose only member is the document itself. Iwayama at pp. 273-74. The first method and system, which is addressed herein is referred to as the "full search" in Iwayama.

Thus, Iwayama discloses categorizing the uncategorized test documents of a body of information based on subject matter categories assigned to previously categorized training documents of the body of information.

determining the degree of similarity between the subject matter content of the uncategorized segment and the subject matter content of each of the previously categorized segments;

Iwayama discloses determining the degree of similarity between the subject matter content of the uncategorized segment and the subject matter content of each of the previously categorized segments.

For example, Iwayama discloses "MBR (Memory Based Reasoning) . . . for calculating a measure of similarity between a test document and every training document." Iwayama at p. 273 (emphasis added.) This method involves "search[ing] the *K*-nearest training documents to the test document and us[ing] the categories assigned to those training documents." Iwayama at p. 273. To determine the *K*-nearest training documents, Iwayama discloses "2. [c]alculat[ing] the posterior probability $P(c_i|d_{test})$ [i.e., degree of similarity] for a test document d_{test} and every cluster c_i." Iwayama at p. 273. The posterior probability is the measure of similarity calculated based on the contents [i.e., subject matter] of the documents (*e.g.,* using the "relative frequency of a term t in a test document," "relative frequency of a term t in a cluster," and "relative frequency of a term t in the entire set of training documents"). Iwayama at p. 274. Iwayama further discloses that "[f]or full search (MBR or *K*-NN), no clustering algorithm is used here. It follows that each training document belongs to a singleton cluster whose only member is the document itself." Iwayama at pp. 273-274. Thus, Iwayama discloses determining the posterior probabilities [i.e., degree of similarity] between a test document and each of the previously categorized documents.

Thus, Iwayama discloses determining a measure of similarity between the subject matter of an uncategorized test document and each document of a set of previously categorized training documents.

identifying one or more of the previously categorized segments as relevant to the uncategorized segment based upon the determined degrees of similarity of subject matter content between the uncategorized segment and the previously categorized segments; and

Iwayama discloses identifying one or more of the previously categorized segments ("training documents") as relevant to the uncategorized segment ("test document") based upon the determined degrees of similarity of subject matter content between the uncategorized segment and the previously categorized segments.

For example, Iwayama discloses "3. [s]ort[ing] the posterior probabilities and extract[ing] the *K*-nearest training documents." Iwayama at p. 273. As discussed above, the degree of similarity ("posterior probability") between the uncategorized document ("test document") and each of the previously categorized documents ("training document") is determined by the MBR method. *See* Iwayama at pp. 273-275. "The training documents in the nearest clusters [which comprise single documents under the MBR method] become the nearest training documents." Iwayama at p. 274.

Thus, Iwayama discloses identifying *K* previously categorized training documents as being relevant to the uncategorized test document based on the determined measures of similarity between the uncategorized test document and the previously categorized training documents.

selecting one or more subject matter categories with which to identify the uncategorized segment based upon the subject matter categories used to identify the relevant previously categorized segments.

Iwayama discloses selecting one or more subject matter categories with which to identify the uncategorized segment based upon the subject matter categories used to identify the relevant previously categorized segments.

For example, Iwayama discloses "4. [a]ssign[ing] to the test document categories based on the extracted *K*-nearest documents." Iwayama at p. 273. Iwayama further discloses that this step includes generating a "category ranking for each test document. . . . According to the category ranking, one or more categories are assigned to each test document using one of the following category assignment strategies. [k-per-doc] . . . [probability threshold] . . . [proportional assignment]." Iwayama at p. 274.

Thus, Iwayama discloses selecting one or more categories for a test document [uncategorized segment] based on the categories assigned to the *K*-nearest training documents [previously categorized segments].

CLAIM 43

A method as in claim 39, wherein the uncategorized segment has been acquired from a first data source and the previously categorized segment or segments have been acquired from a second data source that is different than the first data source.

Iwayama discloses that the uncategorized segment has been acquired from a first data source and the previously categorized segment or segments has/have been acquired from a second data source that is different than the first data source (*e.g.*, "To divide each data set into two sets, one for training and the other for evaluation . . . . For WSJ, all stories that appeared from '89/7/25 to '89/9/29 went into a training set of 5,820 documents, and all stories from '89/10/2 to '89/11/2 went into a test set of 3,087 documents"; "a variety of news stories written by various writers"). Iwayama at p. 276.

Thus, Iwayama discloses that the uncategorized test documents have been acquired from a first data source (*e.g.*, Wall Street Journal from '89/10/2 to '89/11/2.) and that the previously categorized training documents have been acquired from a second data source (*e.g.*, Wall Street Journal from'89/7/25 to '89/9/29.)

CLAIM 82

A computer readable medium encoded with one or more computer programs for enabling categorization according to subject matter of an uncategorized segment of a body of information that includes a plurality of segments, each segment representing a defined set of information in the body of information, one or more segments having previously been categorized by identifying each of the one or more segments with one or more subject matter categories, comprising:

Iwayama discloses a computer readable medium encoded with one or more computer programs for enabling categorization according to subject matter of an uncategorized segment of a body of information that includes a plurality of segments, each segment representing a defined set of information in the body of information, one or more segments having previously been categorized by identifying each of the one or more segments with one or more subject matter categories.

For example, Iwayama discloses a body of information comprising a plurality of segments, such as a collection of Wall Street Journal articles, that includes uncategorized documents ("For WSJ, . . . all stories from '89/10/2 to '89/11/2 went into a test set of 3,087 documents") and previously categorized documents that have been assigned to one or more of 78

categories ("For WSJ, all stories that appeared from '89/7/25 to '89/9/29 went into a training set of 5,820 documents" (Iwayama at p. 276.); "Each of the articles is assigned some of 78 categories." (Iwayama at p. 275.)).

Iwayama further discloses assigning subject matter categories to the uncategorized documents based on categories of similar previously categorized documents ("one or more categories for a test document are searched for by using given training documents with known categories.") Iwayama at Abstract. Specifically, Iwayama discloses a categorization method comprising four steps: "1. Construct clusters C . . . 2. Calculate the posterior probability $P(c_i|d_{test})$ [i.e., degree of similarity] for a test document d_{test} and every cluster c_i . . . 3. Sort the posterior probabilities and extract the *K*-nearest training documents . . . 4. Assign to the test document categories based on the extracted *K*-nearest documents." Iwayama at p. 273.

In one particular embodiment disclosed by Iwayama, the method may be used to perform a full search, such as "MBR (Memory Based Reasoning) . . . for calculating a measure of similarity between a test document and every training document." Iwayama at p. 273. [29] In this example, "each training document belongs to a singleton cluster whose only member is the document itself." Iwayama at p. 274. Thus, the method categorizes the uncategorized documents (i.e., test documents) according to subject matter and involves "calculating a measure of similarity between a test document and every training document." Iwayama at p. 273.

With respect to being embodied as a computer program stored on a computer readable medium, Iwayama describes the categorization as being performed by a "program search[ing] for one or more categories that a test document is assumed to have." Iwayama at p. 273 (emphasis added.) *See also*, program instructions on pp. 279-280. The use of a "program" implicates the use of a computer, and accordingly, instructions encoded on a computer readable medium.

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[29] Iwayama discloses multiple embodiments. A second embodiment, not addressed herein uses clusters of documents having similar categories and works in much the same way as the embodiment discussed herein because, as noted by Iwayama, clusters could be single documents and the methods, except for the clustering step, would be the same. In such case, "each training document belongs to a singleton cluster whose only member is the document itself. Iwayama at pp. 273-74. The first method and system, which is addressed herein is referred to as the "full search" in Iwayama.

Thus, Iwayama discloses instructions for categorizing the uncategorized test documents of a body of information based on categories assigned to previously categorized training documents of the body of information.

instructions for determining the degree of similarity between the subject matter content of the uncategorized segment and the subject matter content of each of the previously categorized segments;

Iwayama discloses instructions for determining the degree of similarity between the subject matter content of the uncategorized segment and the subject matter content of each of the previously categorized segments.

For example, Iwayama discloses "MBR (Memory Based Reasoning) . . . for calculating a measure of similarity between a test document and every training document." Iwayama at p. 273 (emphasis added.) This method involves "search[ing] the *K*-nearest training documents to the test document and us[ing] the categories assigned to those training documents." Iwayama at p. 273. To determine the *K*-nearest training documents, Iwayama discloses "2. [c]alculat[ing] the posterior probability $P(c_i|d_{test})$ [i.e., degree of similarity] for a test document d_{test} and every cluster c_i." Iwayama at p. 273. The posterior probability is the measure of similarity calculated based on the contents [i.e., subject matter] of the documents (*e.g.,* using the "relative frequency of a term t in a test document," "relative frequency of a term t in a cluster," and "relative frequency of a term t in the entire set of training documents"). Iwayama at p. 274. Iwayama further discloses that "[f]or full search (MBR or *K*-NN), no clustering algorithm is used here. It follows that each training document belongs to a singleton cluster whose only member is the document itself." Iwayama at pp. 273-274. Thus, Iwayama discloses determining the posterior probabilities [i.e., degree of similarity] between a test document and each of the previously categorized documents.

Thus, Iwayama discloses instructions for determining a measure of similarity between the contents (subject matter) of an uncategorized test document and each document of a set of previously categorized training documents.

instructions for identifying one or more of the previously categorized segments as relevant to the uncategorized segment based upon the determined degrees of similarity of subject matter content between the uncategorized segment and the previously categorized segments; and

Iwayama discloses instructions for identifying one or more of the previously categorized segments ("training documents") as relevant to the uncategorized segment ("test document") based upon the determined degrees of similarity of subject matter content between the uncategorized segment and the previously categorized segments.

For example, Iwayama discloses "3. [s]ort[ing] the posterior probabilities and extract[ing] the *K*-nearest training documents." Iwayama at p. 273. As discussed above, the degree of similarity ("posterior probability") between the uncategorized document ("test document") and each of the previously categorized documents ("training document") is determined by the MBR method. *See* Iwayama at pp. 273-275. "The training documents in the nearest clusters [which comprise single documents under the MBR method] become the nearest training documents." Iwayama at p. 274.

Thus, Iwayama discloses instructions for identifying *K* previously categorized training documents as being relevant to the uncategorized test document based on the determined measures of similarity between the uncategorized test document and the previously categorized training documents.

instructions for selecting one or more subject matter categories with which to identify the uncategorized segment based upon the subject matter categories used to identify the relevant previously categorized segments.

Iwayama discloses instructions for selecting one or more subject matter categories with which to identify the uncategorized segment based upon the subject matter categories used to identify the relevant previously categorized segments.

For example, Iwayama discloses "4. [a]ssign[ing] to the test document categories based on the extracted *K*-nearest documents." Iwayama at p. 273. Iwayama further discloses that this step includes generating a "category ranking for each test document. . . . According to the category ranking, one or more categories are assigned to each test document using one of the following category assignment strategies. [k-per-doc] . . . [probability threshold] . . . [proportional assignment]." Iwayama at p. 274.

Thus, Iwayama discloses instructions for selecting one or more categories for a test document [uncategorized segment] based on the categories assigned to the *K*-nearest training documents [previously categorized segments].

CLAIM 86

A computer readable medium as in claim 82, wherein the uncategorized segment has been acquired from a first data source and the previously categorized segment or segments have been acquired from a second data source that is different than the first data source.

Iwayama discloses that the uncategorized segment has been acquired from a first data source and the previously categorized segment or segments have been acquired from a second data source that is different than the first data source (*e.g.*, "To divide each data set into two sets, one for training and the other for evaluation . . . . For WSJ, all stories that appeared from '89/7/25 to '89/9/29 went into a training set of 5,820 documents, and all stories from '89/10/2 to '89/11/2 went into a test set of 3,087 documents"; "a variety of news stories written by various writers"). Iwayama at p. 276. *See also*, program code on pp. 279-280.

Thus, Iwayama discloses that the uncategorized test documents have been acquired from a first data source (*e.g.*, Wall Street Journal from '89/10/2 to '89/11/2) and that the previously categorized training documents have been acquired from a second data source (*e.g.*, Wall Street Journal from'89/7/25 to '89/9/29).

M. IWAYAMA IN VIEW OF MASAND RENDERS OBVIOUS CLAIMS 40, 43, 83, AND 86 OF THE '507 PATENT

Please see the attached Exhibit CC-M presenting claim charts comparing Iwayama in view of Masand with claims 40, 43, 83, and 86 of the '507 patent.

REASONS TO COMBINE

Iwayama is directed to a method of categorizing documents, such as articles from the Wall Street Journal, based on similarities between the documents. *See* Iwayama at pp. 273 and 276. Iwayama discloses one particular embodiment using the "Memory Based Reasoning" method to categorize the documents. *See* Iwayama at pp. 273-274. Similarly, Masand is directed to categorizing news stories by also using the "Memory Based Reasoning" method. *See* Masand at p. 59. In particular, Masand discloses categorizing a news story acquired from a first source ("stories originating from diverse sources such as newspapers, magazines, newswires, and press releases") (Masand at p. 59.) by comparing the document to a set of previously categorized documents acquired from a second source that is different from the first ("[u]sing an already coded training database of about 50,000 stories from the Dow Jones Press Release News Wire . . . .") (Masand at p. 59.).

A person of ordinary skill in the art, applying the "Memory Based Reasoning" method to compare and categorize documents, would have been motivated to apply the method to documents acquired from different soruces, as taught by Masand. Thus, it would have been obvious to use the "Memory Based Reasoning" method to compare information from different sources in Iwayama since Iwayama and Masand relate to the same method of comparing information. Moreover, the combination of Iwayama and Masand yields a predictable result, and one of ordinary skill in the art would be capable of combining these systems to achieve the expected result of determining similarities between documents acquired from different sources.

Further, Masand discloses determining the degree of similarity between two segments using a relevance feedback method. For example, Masand discloses "a method for classifying news stories using Memory Based Reasoning (MBR) (a k-nearest neighbor method)." Masand at p. 59. Masand further dicloses that "[f]ollowing the general approach of MBR, we find the near matches for each document to be classified. This is done by constructing a relevance feedback query out of the text of the document, including both words and capitalized pairs. This query returns a weighted list of near matches (see Fig. 4)." Masand at p. 61. (emphasis added.) A person of ordinary skill in the art, applying the "Memory Based Reasoning" method to compare and categorize documents, would have been motivated to use the relevance feedback methods, as taught by Masand.

Thus, it would have been obvious to use relevance feedback to determine the similarity of different segments in Iwayama, particularly since Iwayama and Masand relate to the same method of comparing information. Moreover, the combination of Iwayama and Masand yields a predictable result, and one of ordinary skill in the art would be capable of combining these systems to achieve the expected result of determining similarities between documents using a relevance feedback method.

CLAIM 40

A method as in claim 39, wherein the step of determining the degree of similarity is accomplished using a relevance feedback method.

Iwayama, in view of Masand, discloses that the step of determining the degree of similarity is accomplished using a relevance feedback method as recited in claim 40.

For example, as discussed above, Iwayama discloses "MBR (Memory Based Reasoning) . . . for calculating a measure of similarity between a test document and every training

document." Iwayama at p. 273 (emphasis added.) To determine the *K*-nearest training documents, Iwayama discloses "2. [c]alculat[ing] the posterior probability $P(c_i|d_{test})$ [i.e., degree of similarity] for a test document d_{test} and every cluster c_i." Iwayama at p. 273. Iwayama further discloses that "[f]or full search (MBR or *K*-NN)" each document is its own cluster. Iwayama at 273-74. ("each training document belongs to a singleton cluster whose only member is the document itself").

Masand similarly discloses "a method for classifying news stories using Memory Based Reasoning (MBR) (a k-nearest neighbor method)." Masand at p. 59. The MBR method includes "find[ing] the near matches for each document to be classified. This is done by constructing a relevance feedback query out of the text of the document, including both words and capitalized pairs. This query returns a weighted list of near matches (see Fig. 4)." Masand at p. 61.

Masand discloses determining similarity scores between the subject matter of an uncategorized document (*e.g.,* news story) and the subject matter of each document of a set of previously categorized documents (*e.g.,* previously categorized news stories) by "constructing a relevance feedback query out of the text of the document, including both words and capitalized pairs." Masand at p. 61. (emphasis added.)

A person of ordinary skill in the art, applying the "Memory Based Reasoning" method to compare and categorize documents, would have been motivated to use the relevance feedback methods, as taught by Masand. Thus, it would have been obvious to use relevance feedback as disclosed in Masand to determine the similarity of different segments in Iwayama, particularly since Iwayama and Masand relate to the same method of comparing information. Moreover, the combination of Iwayama and Masand yields a predictable result, and one of ordinary skill in the art would be capable of combining these systems to achieve the expected result of determining similarities between documents using a relevance feedback method.

CLAIM 43

> **A method as in claim 39, wherein the uncategorized segment has been acquired from a first data source and the previously categorized segment or segments have been acquired from a second data source that is different than the first data source.**

Iwayama, in view of Masand, discloses that the uncategorized segment has been acquired from a first data source and the previously categorized segment or segments has/have been

acquired from a second data source that is different than the first data source, because, for example, Masand discloses applying the "Memory Based Reasoning" method to documents acquired from different sources. *See* Masand at p. 59. Specifically, Masand discloses categorizing a news story acquired from a first source ("stories originating from diverse sources such as newspapers, magazines, newswires, and press releases") (Masand at p. 59) by comparing the document to a set of previously categorized documents acquired from a second source that is different from the first ("[u]sing an already coded training database of about 50,000 stories from the Dow Jones Press Release News Wire . . . .") (Masand at p. 59). Thus, Masand discloses the ability to apply the "Memory Based Reasoning" method to documents acquired from different sources.

A person of ordinary skill in the art, applying the "Memory Based Reasoning" method to compare and categorize documents, would have been motivated to apply the method to documents acquired from different soruces, as taught by Masand. Thus, it would have been obvious to use the "Memory Based Reasoning" method to compare information from different sources in Iwayama since Iwayama and Masand relate to the same method of comparing information. Moreover, the combination of Iwayama and Masand yields a predictable result, and one of ordinary skill in the art would be capable of combining these systems to achieve the expected result of determining similarities between documents acquired from different sources.

CLAIM 83

A computer readable medium as in claim 82, wherein the instructions for determining the degree of similarity further comprise instructions for performing a relevance feedback method.

Iwayama, in view of Masand, discloses that the step of determining the degree of similarity is accomplished using a relevance feedback method as recited in claim 83.

For example, as discussed above, Iwayama discloses "MBR (Memory Based Reasoning) . . . for calculating a measure of similarity between a test document and every training document." Iwayama at p. 273 (emphasis added.) To determine the *K*-nearest training documents, Iwayama discloses "2. [c]alculat[ing] the posterior probability $P(c_i|d_{test})$ [i.e., degree of similarity] for a test document d_{test} and every cluster c_i." Iwayama at p. 273. Iwayama further discloses that "[f]or full search (MBR or *K*-NN)" each document is its own cluster. Iwayama at

273-74 ("each training document belongs to a singleton cluster whose only member is the document itself").

Masand similarly discloses "a method for classifying news stories using Memory Based Reasoning (MBR) (a k-nearest neighbor method)." Masand at p. 59. The MBR method includes "find[ing] the near matches for each document to be classified. This is done by constructing a relevance feedback query out of the text of the document, including both words and capitalized pairs. This query returns a weighted list of near matches (see Fig. 4)." Masand at p. 61.

Masand discloses determining similarity scores between the subject matter of an uncategorized document (*e.g.,* news story) and the subject matter of each document of a set of previously categorized documents (*e.g.,* previously categorized news stories) by "constructing a relevance feedback query out of the text of the document, including both words and capitalized pairs." Masand at p. 61 (emphasis added.)

A person of ordinary skill in the art, applying the "Memory Based Reasoning" method to compare and categorize documents, would have been motivated to use the relevance feedback methods, as taught by Masand. Thus, it would have been obvious to use relevance feedback disclosed in Masand to determine the similarity of different segments in Iwayama, particularly since Iwayama and Masand relate to the same method of comparing information. Moreover, the combination of Iwayama and Masand yields a predictable result, and one of ordinary skill in the art would be capable of combining these systems to achieve the expected result of determining similarities between documents using a relevance feedback method.

CLAIM 86

> **A computer readable medium as in claim 82, wherein the uncategorized segment has been acquired from a first data source and the previously categorized segment or segments have been acquired from a second data source that is different than the first data source.**

For the same reasons set forth with respect to claim 43, claim 86 would have been obvious to one of ordinary skill in the art based on Iwayama in view of Masand.

N. IWAYAMA IN VIEW OF PATENT OWNER ADMISSIONS RENDERS OBVIOUS CLAIMS 40 AND 83 OF THE '507 PATENT

Please see the attached Exhibit CC-N presenting claim charts comparing Iwayama in view of Patent Owner admissions with claims 40 and 83 of the '507 patent.

REASONS TO COMBINE

Iwayama is directed to a method of categorizing documents, such as articles from the Wall Street Journal, based on similarities between the documents. *See* Iwayama at pp. 273 and 276. Similarly, the '507 patent is directed toward identifying and displaying text-based news stories that are related to a television news program. '507 patent at Abstract. Both Iwayama and the '507 patent describe comparing data representing news items, including text news items. The '507 patent discloses that relevance feedback was well known for use in determining the similarities between two sets of information, particularly text (*e.g.*, "The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). '507 patent at 28:55-29:3.[30]

A person of ordinary skill in the art, looking for a method of determining similarities between two information sources, particularly two text sources, such as the articles disclosed in Iwayama, would have been motivated to use the relevance feedback method of the prior art as discussed in the '507 patent for at least the advantages disclosed in the prior art, which the '507 patent incorporates by reference. Thus, it would have been obvious to use a relevance feedback method to compare information in Iwayama since Iwayama and the admissions relate to well-known methods of comparing information. Moreover, the combination of Iwayama and the admissions by the Patent Owner yields a predictable result, and one of ordinary skill in the art would be capable of combining these systems to achieve the expected result of determining similarities between two information sources.

CLAIM 40

> **A method as in claim 39, wherein the step of determining the degree of similarity is accomplished using a relevance feedback method.**

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[30] Patent owner also admits that the prior art incorporated by reference into the '507 patent touts the benefits of using relevance feedback. *See, e.g.,* "Improving Retrieval Performance by Relevance Feedback," Salton, G., Journal of the American Society for Information Science, vol. 41, no. 4, pp. 288-297 ("Salton"); *see also* "The Effect of Adding Relevance Information in a Relevance Feedback Environment," Buckley, C., et al., Proceedings of 17th International Conference on Research and Development in Information Retrieval, DIGIR 94, Springer-verlag (Germany), 1994, pp. 292-300 ("Buckley").

The '507 patent includes admissions that the use of relevance feedback methods to compare text was well known in the art. *See e.g.*, '507 patent at 28:55-29:3 ("The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). Notably, the '507 patent states (emphasis added) at 28:36-38, that "[t]he degree of similarity can be determined using any appropriate method, such as, for example, relevance feedback." In other words, the '507 patent itself makes clear that there is nothing particularly significant or important – in terms of imparting patentability (either novelty or nonobviousness) to a claim – about using relevance feedback to determine similarity, and it is just one of multiple techniques that could be used. As explained above, these admissions can be used in combination with prior patents and printed publications to establish an SNQ. *See* MPEP § 2617(III). [31]

Thus, it would have been obvious to use the known relevance feedback method to compare information in Iwayama since Iwayama and the admissions relate to well-known methods of comparing information. Moreover, the combination of Iwayama and the admissions by the Patent Owner yields a predictable result, and one of ordinary skill in the art would be capable of combining these systems to achieve the expected result of determining similarities between two information sources.

CLAIM 83

A computer readable medium as in claim 82, wherein the instructions for determining the degree of similarity further comprise instructions for performing a relevance feedback method.

The '507 patent includes admissions that the use of relevance feedback methods to compare text was well known in the art. *See e.g.*, '507 patent at 28:55-29:3 ("The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). Notably, the '507 patent states (emphasis added) at 28:36-38, that "[t]he degree of

[31] Moreover, the '507 Patent also discloses that the degree of similarity can be determined using any appropriate method, thus further confirming that relevance feedback does not provide a basis to distinguish the claimed invention. As such, Bender either alone or in combination with the Patent Owner's admissions and/or the incorporated Salton and Buckley references renders claim 40 obvious.

similarity can be determined using any appropriate method, such as, for example, relevance feedback." In other words, the '507 patent itself makes clear that there is nothing particularly significant or important – in terms of imparting patentability (either novelty or nonobviousness) to a claim – about using relevance feedback to determine similarity, and it is just one of multiple techniques that could be used. As explained above, these admissions can be used in combination with prior patents and printed publications to establish an SNQ. *See*: MPEP § 2617(III).[32]

Thus, it would have been obvious to use the known relevance feedback method to compare information in Iwayama since Iwayama and the admissions relate to well-known methods of comparing information. Moreover, the combination of Iwayama and the admissions by the Patent Owner yields a predictable result, and one of ordinary skill in the art would be capable of combining these systems to achieve the expected result of determining similarities between two information sources.

O. YUASA ANTICIPATES CLAIMS 39, 43, 82, AND 86 OF THE '507 PATENT

Please See the attached Exhibit CC-O presenting claim charts for comparison of Yuasa with claims 39, 43, 82, and 86 of the '507 patent.

CLAIM 39

> **A method for categorizing according to subject matter an uncategorized segment of a body of information that includes a plurality of segments, each segment representing a defined set of information in the body of information, one or more segments of the body of information having previously been categorized by identifying each of the one or more segments with one or more subject matter categories, the method comprising the steps of:**

Yuasa discloses a method for categorizing according to subject matter an uncategorized segment of a body of information that includes a plurality of segments, each segment representing a defined set of information in the body of information, one or more segments of the

[32] Moreover, the '507 Patent also discloses that the degree of similarity can be determined using any appropriate method, thus further confirming that relevance feedback does not provide a basis to distinguish the claimed invention. As such, Bender either alone or in combination with the Patent Owner's admissions and/or the incorporated Salton and Buckley references renders claim 83 obvious.

body of information having previously been categorized by identifying each of the one or more segments with one or more subject matter categories.

For example, Yuasa discloses a system that performs a method of automatically classifying large volume documents. (Yuasa at [0001], [0008].) The documents are a body of information and each document is a segment of information. Yuasa discloses that one or more of the documents (i.e., segments) have been previously categorized. (*Id.* at [0017]-[0018].) The categories include subject matter categories, such as "politics", "Diet", and "international". (*Id.* at [0058].)

determining the degree of similarity between the subject matter content of the uncategorized segment and the subject matter content of each of the previously categorized segments;

Yuasa discloses determining the degree of similarity between the subject matter content of the uncategorized segment and the subject matter content of each of the previously categorized segments (*e.g.*, "a classifier for classifying documents using degrees of similarity between characteristic vectors of documents"). Yuasa at ¶¶ [0005], [0009], [0011], [0013], [0018], [0030], [0032], [0046], [0048], [0055], and [0058]-[0060].

Yuasa describes an exemplary process by which a sentence is categorized according to a plurality of predetermined classification groups. *Id.* at [0031]-[0046]. The classification groups include subject matter categories, such as "politics", "Diet", and "international". (*Id.* at [0058].) The classification groups are determined from previously categorized documents, and a representative vector is generated for each classification group. In one example, a representative document is chosen for each classification group, and a document characteristic vector is created for each representative document. *Id.* at [0018]. In another example, a clustering technique is used in which "documents for which the distances between document characteristics are close [are placed] in the same field [i.e. classification]". *Id.* at [0017]. Yuasa determines similarity by comparing the characteristic vector of the classification group to the characteristic vector of the sample sentence. *Id.* at [0031]-[0046]. "[T]he inner products of both [the characteristic vector of the sample sentence and the characteristic vector of the classification groups] are computed, and that producing the highest value is assumed to exhibit the highest degree of similarity…" *Id.* at [0032].

identifying one or more of the previously categorized segments as relevant to the uncategorized segment based upon the determined degrees of similarity of subject matter content between the uncategorized segment and the previously categorized segments; and

Yuasa discloses identifying one or more of the previously categorized segments as relevant to the uncategorized segment based upon the determined degrees of similarity of subject matter content between the uncategorized segment and the previously categorized segments. (*e.g.*, "a classifier for classifying documents using degrees of similarity between characteristic vectors of documents" and "it will be possible to classify a document read in from the document memory 301 in a classification group corresponding to the representative vector that most resembles the characteristic vector(s) for that document"). Yuasa at ¶¶ [0005], [0009], [0011], [0013], [0018], [0030], [0032], [0046], [0048], [0055], and [0058]-[0060].

For example, the Yuasa system measures the similarity between the example sentence and the previously determined classification groups by computing an inner product of the characteristic vector of the example sentence the characteristic vector of each of the classification groups. (*Id.* at [0031]-[0046].) "[T]he inner products of both [the characteristic vector of the sample sentence and the characteristic vector of the classification groups] are computed, and that producing the highest value is assumed to exhibit the highest degree of similarity…" (*Id.* at [0032].)

selecting one or more subject matter categories with which to identify the uncategorized segment based upon the subject matter categories used to identify the relevant previously categorized segments.

Yuasa discloses selecting one or more subject matter categories with which to identify the uncategorized segment based upon the subject matter categories used to identify the relevant previously categorized segments (*e.g.*, "it is seen that the characteristic vector for example sentence C is closest to the representative vector for classification group 3, so example sentence C is classified in classification group 3.") Yuasa at ¶¶ [0011], [0018], [0046] and [0058]-[0060].

CLAIM 43

A method as in claim 39, wherein the uncategorized segment has been acquired from a first data source and the previously categorized segment or segments have been acquired from a second data source that is different than the first data source.

Yuasa discloses a method as in claim 39, wherein the uncategorized segment has been acquired from a first data source and the previously categorized segment or segments have been acquired from a second data source that is different than the first data source.

Yuasa discloses that the classification system described therein can be utilized for "classifying electronic mail or electronic news". Yuasa at Abstract, and ¶¶ [0001], [0003]-[0004] and [0061]. Inherently, electronic news and electronic mail will originate from multiple sources.

CLAIM 82

A computer readable medium encoded with one or more computer programs for enabling categorization according to subject matter of an uncategorized segment of a body of information that includes a plurality of segments, each segment representing a defined set of information in the body of information, one or more segments having previously been categorized by identifying each of the one or more segments with one or more subject matter categories, comprising:

Yuasa discloses a computer readable medium encoded with one or more computer programs for enabling categorization according to subject matter of an uncategorized segment of a body of information that includes a plurality of segments, each segment representing a defined set of information in the body of information, one or more segments having previously been categorized by identifying each of the one or more segments with one or more subject matter categories.

For example, Yuasa discloses a system that performs a method of automatically classifying large volume documents. (Yuasa at [0001], [0008].) The documents are a body of information and each document is a segment of information. Yuasa discloses that one or more of the documents (i.e., segments) have been previously categorized. (*Id.* at [0017]-[0018].) The categories include subject matter categories, such as "politics", "Diet", and "international". (*Id.* at [0058].) The system is "for use in an automatic classifying machine, word processor, or filing system or the like which stores and/or automatically classifies documents." (*Id.* at [0001].) The system is also used to classify electronic mail and/or news. (*Id.* at [0061].) It is inherent that such systems would require computer programs, instructions, and/or code encoded on a computer readable medium to perform such a task.

instructions for determining the degree of similarity between the subject matter content of the uncategorized segment and the subject matter content of each of the previously categorized segments;

Yuasa discloses instructions for determining the degree of similarity between the subject matter content of the uncategorized segment and the subject matter content of each of the previously categorized segments (*e.g.*, "a classifier for classifying documents using degrees of similarity between characteristic vectors of documents". Yuasa at ¶¶ [0005], [0009], [0011], [0013], [0018], [0030], [0032], [0046], [0048], [0055], and [0058]-[0060].

For example, Yuasa describes a process by which an example sentence is categorized according to a plurality of predetermined classification groups. (*Id.* at [0031]-[0046].) The classification groups include subject matter categories, such as "politics", "Diet", and "international". (*Id.* at [0058].) The classification groups are determined from previously categorized documents, and a representative vector is generated for each classification group. In one example, a representative document is chosen for each classification group, and a document characteristic vector is created for each representative document. (*Id.* at [0018].) In another example, a clustering technique is used in which "documents for which the distances between document characteristics are close [are placed] in the same field [i.e. category]". (*Id.* at [0017].) Yuasa determines similarity by comparing the characteristic vector of the classification group to the characteristic vector of the sample sentence. (*Id.* at [0031]-[0046].) "[T]he inner products of both [the characteristic vector of the sample sentence and the characteristic vector of the classification groups] are computed, and that producing the highest value is assumed to exhibit the highest degree of similarity…" (*Id.* at [0032].)

instructions for identifying one or more of the previously categorized segments as relevant to the uncategorized segment based upon the determined degrees of similarity of subject matter content between the uncategorized segment and the previously categorized segments; and

Yuasa discloses instructions for identifying one or more of the previously categorized segments as relevant to the uncategorized segment based upon the determined degrees of similarity of subject matter content between the uncategorized segment and the previously categorized segments. (*e.g.*, "a classifier for classifying documents using degrees of similarity between characteristic vectors of documents" and "it will be possible to classify a document read in from the document memory 301 in a classification group corresponding to the representative

vector that most resembles the characteristic vector(s) for that document"). Yuasa at ¶¶ [0005], [0009], [0011], [0013], [0018], [0030], [0032], [0046], [0048], [0055], and [0058]-[0060].

For example, the Yuasa system measures the similarity between the example sentence and the previously determined classification groups by computing an inner product of the characteristic vector of the example sentence the characteristic vector of each of the classification groups. (*Id.* at [0031]-[0046].) "[T]he inner products of both [the characteristic vector of the sample sentence and the characteristic vector of the classification groups] are computed, and that producing the highest value is assumed to exhibit the highest degree of similarity…" (*Id.* at [0032].)

instructions for selecting one or more subject matter categories with which to identify the uncategorized segment based upon the subject matter categories used to identify the relevant previously categorized segments.

Yuasa discloses instructions for selecting one or more subject matter categories with which to identify the uncategorized segment based upon the subject matter categories used to identify the relevant previously categorized segments (*e.g.*, "it is seen that the characteristic vector for example sentence C is closest to the representative vector for classification group 3, so example sentence C is classified in classification group 3.") Yuasa at ¶¶ [0011], [0018], [0046] and [0058]-[0060].

CLAIM 86

A computer readable medium as in claim 82, wherein the uncategorized segment has been acquired from a first data source and the previously categorized segment or segments have been acquired from a second data source that is different than the first data source.

Yuasa discloses a computer readable medium as in claim 82, wherein the uncategorized segment has been acquired from a first data source and the previously categorized segment or segments have been acquired from a second data source that is different than the first data source. For example, Yuasa discloses that the classification system described therein can be utilized for "classifying electronic mail or electronic news". Yuasa at Abstract, and ¶¶ [0001], [0003]-[0004] and [0061]. Inherently, a certain amount of electronic news and electronic mail will originates from multiple sources.

P. YUASA IN VIEW OF PATENT OWNER ADMISSIONS RENDERS OBVIOUS CLAIMS 40 AND 83 OF THE '507 PATENT

Please see the attached Exhibit CC-P presenting claim charts comparing Yuasa in view of Patent Owner admissions with claims 40 and 83 of the '507 patent.

REASONS TO COMBINE

Yuasa is directed to a method of categorizing documents, such as documents, electronic mail, and electronic news. Yuasa at ¶¶ [0001] and [0061]. The '507 patent is directed toward identifying and displaying text-based news stories that are related to a television news program. '507 patent at Abstract. Both Yuasa and the '507 patent describe comparing data representing news items, including text news items. The '507 patent discloses that relevance feedback was well known for use in determining the similarities between two sets of information, particularly text (*e.g.*, "The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). '507 patent at 28:55-29:3.[33]

A person of ordinary skill in the art, looking for a method of determining similarities between two information sources, particularly two text sources, such as the documents disclosed in Yuasa, would have been motivated to use the relevance feedback method of the prior art as discussed in the '507 patent for at least the advantages disclosed in the prior art, which the '507 patent incorporates by reference. Thus, it would have been obvious to use a relevance feedback method to compare information in Iwayama since Iwayama and the admissions relate to well-known methods of comparing information. Moreover, the combination of Iwayama and the admissions by the Patent Owner yields a predictable result, and one of ordinary skill in the art would be capable of combining these systems to achieve the expected result of determining similarities between two information sources.

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[33] Patent owner also admits that the prior art incorporated by reference into the '507 patent touts the benefits of using relevance feedback. *See, e.g.,* "Improving Retrieval Performance by Relevance Feedback," Salton, G., Journal of the American Society for Information Science, vol. 41, no. 4, pp. 288-297 ("Salton"); *see also* "The Effect of Adding Relevance Information in a Relevance Feedback Environment," Buckley, C., et al., Proceedings of 17th International Conference on Research and Development in Information Retrieval, DIGIR 94, Springer-verlag (Germany), 1994, pp. 292-300 ("Buckley").

CLAIM 40

A method as in claim 39, wherein the step of determining the degree of similarity is accomplished using a relevance feedback method.

The '507 patent includes admissions that the use of relevance feedback methods to compare text was well known in the art. *See e.g.*, '507 patent at 28:55-29:3 ("The use of relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). Notably, the '507 patent states (emphasis added) at 28:36-38, that "[t]he degree of similarity can be determined using any appropriate method, such as, for example, relevance feedback." In other words, the '507 patent itself makes clear that there is nothing particularly significant or important – in terms of imparting patentability (either novelty or nonobviousness) to a claim – about using relevance feedback to determine similarity, and it is just one of multiple techniques that could be used. As explained above, these admissions can be used in combination with prior patents and printed publications to establish an SNQ. *See*: MPEP § 2617(III).[34]

Thus, it would have been obvious to use the known relevance feedback method to compare information in Yuasa since Yuasa and the admissions relate to well-known methods of comparing information. Moreover, the combination of Yuasa and the admissions by the Patent Owner yields a predictable result, and one of ordinary skill in the art would be capable of combining these systems to achieve the expected result of determining similarities between two information sources.

CLAIM 83

A computer readable medium as in claim 82, wherein the instructions for determining the degree of similarity further comprise instructions for performing a relevance feedback method.

The '507 patent includes admissions that the use of relevance feedback methods to compare text was well known in the art. *See e.g.*, '507 patent at 28:55-29:3 ("The use of

[34] Moreover, the '507 Patent also discloses that the degree of similarity can be determined using any appropriate method, thus further confirming that relevance feedback does not provide a basis to distinguish the claimed invention. As such, Bender either alone or in combination with the Patent Owner's admissions and/or the incorporated Salton and Buckley references renders claim 40 obvious.

relevance feedback to determine the similarity between two text segments is well-known, and is described in more detail in [the prior art]. Relevance feedback is also described in detail in [the prior art]"). Notably, the '507 patent states (emphasis added) at 28:36-38, that "[t]he degree of similarity can be determined using any appropriate method, such as, for example, relevance feedback." In other words, the '507 patent itself makes clear that there is nothing particularly significant or important – in terms of imparting patentability (either novelty or nonobviousness) to a claim – about using relevance feedback to determine similarity, and it is just one of multiple techniques that could be used. As explained above, these admissions can be used in combination with prior patents and printed publications to establish an SNQ. *See*: MPEP § 2617(III).[35]

Thus, it would have been obvious to use the known relevance feedback method to compare information in Yuasa since Yuasa and the admissions relate to well-known methods of comparing information. Moreover, the combination of Yuasa and the admissions by the Patent Owner yields a predictable result, and one of ordinary skill in the art would be capable of combining these systems to achieve the expected result of determining similarities between two information sources.

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[35] [35] Moreover, the '507 Patent also discloses that the degree of similarity can be determined using any appropriate method, thus further confirming that relevance feedback does not provide a basis to distinguish the claimed invention. As such, Bender either alone or in combination with the Patent Owner's admissions and/or the incorporated Salton and Buckley references renders claim 83 obvious.

VII. CONCLUSION

The prior art references presented in this Request were either not previously considered by the Office or are now being presented in a new light pursuant to MPEP § 2242(II)(A). Claims 20-24, 27, 28, 31, 34, 37-40, 43, 63-67, 70, 71, 74, 77, 80-83, and 86 of the '507 patent are not patentable over the prior art references cited herein. The prior art references teach the subject matter of the '507 patent in a manner such that substantial new questions of patentability for all these claims are raised by this Request.

In view of the foregoing, it is respectfully submitted that substantial new questions of patentability of claims 20-24, 27, 28, 31, 34, 37-40, 43, 63-67, 70, 71, 74, 77, 80-83, and 86 of the '507 patent have been raised by this Request. Accordingly, the Office is respectfully requested to grant this Request and to initiate reexamination with special dispatch.

As an aid to the application of the presented prior art to claims of the '507 patent, corresponding claim charts are provided at Exhibit CC-A through CC-P attached hereto. Based upon the disclosures herein and the references upon which reexamination is requested, Requester's respectfully submit that all of the foregoing claims are either anticipated and/or obvious in view of the prior art and should be rejected. Accordingly, the Office is respectfully requested to reject all of the foregoing claims in view of the art cited herein.

Enclosed is a credit card authorization for payment of the Fee for reexamination. If this authorization is missing or defective, please charge the Fee to the Novak Druce Deposit Account No. 14-1437.

NOVAK DRUCE + QUIGG LLP
1000 Louisiana Ave.
53rd Floor
Houston, Texas 77002
P: 713-571-3400
F: 713-456-2836

Respectfully submitted,

__/Lissi Mojica Marquis /___

Novak Druce & Quigg, LLP
Lissi Mojica
Reg. No. 63,421
Steve Marcus
Reg. No. 64,075
Donald J. Quigg
Reg. No. 16,030
Kevin Greenleaf
Reg. No. 64,062