

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF WISCONSIN**

HYPERPHRASE TECHNOLOGIES, LLC	§	
and	§	
HYPERPHRASE INC.,	§	
Plaintiffs,	§	
	§	CIVIL ACTION NO. 06 C 0199 S
v.	§	
	§	
GOOGLE, INC.,	§	
Defendant	§	

**DECLARATION OF MR. CARLOS DE LA HUERGA IN SUPPORT OF  
HYPERPHRASE’S OPPOSITION TO GOOGLE’S MOTION FOR  
SUMMARY JUDGMENT OF INVALIDITY**

**I. INTRODUCTION**

1. I, Carlos de la Huerga, am the inventor or co-inventor of U.S. Patent No. 5,903,889 (“the 889 patent”) and U.S. Patent No. 6,516,321 (“the ‘321 patent”), and in accordance with Federal Rule of Civil Procedure 26(a)(2)(b), I have been designated as an expert witness for HyperPhrase Technologies, LLC and HyperPhrase, Inc. (hereafter “HyperPhrase”). By my education, training, and experience, as evidenced by my curriculum vitae and List of Technical Publications and Patents (attached as Exh. A (Rebuttal Report of de la Huerga, Exh. A)), I am qualified to provide testimony on the understanding of persons of ordinary skill in the art regarding the ‘889 and ‘321 patents and the seven prior art references being relied upon by Google in its Motion for Summary Judgment of Invalidity based on anticipation.

2. In connection with preparing this declaration, I have reviewed all the HyperPhrase patents, patent applications and prosecution history, Google’s briefs and

exhibits and materials supporting their Summary Judgment Motion for Invalidity, the expert reports of Google's expert, Bruce Croft and the supporting exhibits, and the prior art references (attached as Exh. A (Rebuttal Report of de la Huerga, Exh. B))

3. I have previously prepared a rebuttal expert report on invalidity in this case. I am attaching this expert report in its entirety as Exh. A. I am submitting this declaration to supplement this expert report to address additional issues raised by Google in their Memorandum in Support of their Motion for Summary Judgment of Invalidity.

4. All of the opinions provided in this declaration are:
- a. Based upon sufficient facts and data to allow me to reach the opinions contained in this declaration;
  - b. My opinions expressed herein are the product of reliable principles and methods;
  - c. My opinions expressed herein constitute a reliable application of those principles and methods to the facts of this case; and
  - d. My opinions expressed herein are based upon information of a type reasonably relied upon by experts in the arts applicable (technical dictionaries, technical descriptions, technical publications, schematics, patent disclosures and claims) and analogous to the patents at issue.

5. I conceived and reduced to practice the inventions in claims 1 and 7 of the '889 patent at least as of September 30, 1996. See, Exh. A, Rebuttal Expert Report of de la Huerga, Appendix A-1. In addition, my patent attorney and I were reasonably diligent in the period from Sept. 1996 to the June 9, 1997 filing date of the '889 patent. See Exh. A, Rebuttal Expert Report of de la Huerga, Appendix A-1.

6. I conceived and reduced to practice the inventions in claims 1, 24 and 27 of the '321 patent at least as of April 10, 1996. See, Exh. A, Rebuttal Expert Report of de la Huerga, Appendix A-2. In addition, my patent attorney and I were reasonably diligent in the period from April 1996 until the filing of provisional patent application Ser. No. 60/023,126 on July 30, 1996. See Exh. A, Rebuttal Expert Report of de la Huerga, Appendix A-2. I also conceived the invention in claim 86 on April 10, 1996 and reduced to practice this invention to practice at least as of June 26, 1996. See, Exh. A, Rebuttal Expert Report of de la Huerga, Appendix A-2 and June 26, 1996, draft of patent application, Exh. B. In addition, my patent attorney and I were reasonably diligent in the period from April 1996 until the filing of provisional patent application Ser. No. 60/023,126 on July 30, 1996. See Exh. A, Rebuttal Expert Report of de la Huerga, Appendix A-2.

7. The term "record" in the context of the '321 and '889 patents includes text but this term has been subject to misinterpretation by Google. In the field of world wide web (WWW) pages, one can look and see almost two different worlds that reside side-by-side. At one level, there is the formatted display text seen when presented by a browser or similar program on a computer display. The presentation may show text segments justified in various ways, and perhaps formatted in bold appearance, using the font Arial, in a 24 point size, and colored green. The next character in sequence may have a completely different format. Some text may be presented as a hyperlink anchor, which allows a computer mouse to activate it to retrieve another record.

This is the text that the typical reader expects to see on a web browser or to be printed by a web browser and can be considered to be text in a record. However, to a

markup language software programmer, there is second or hidden layer to each web page that resides apart from this text. This second layer is the series of hidden markup language codes or tags, which often typically start with a “<” and end with a “>”. As an example, the HTML code to set font formatting to Arial 22 point, red centered, bold italic text, as generated by Microsoft Word, when acting in HTML generation mode, is:

```
<p class=MsoNormal align=center style='text-align:center'>  
<b style='mso-bidi-font-weight:normal'>  
<i style='mso-bidi-font-style:normal'>  
<span style='font-size:22.0pt; font-family:Arial;color:red'>
```

Any text, for example a single word, following it is formatted as defined until terminating HTML codes are provided. The text that follows can then be given additional HTML formatting codes.

To a programmer, this hidden layer also consists of characters, but these comprise HTML formatting tags that are placed adjacent to and typically surrounding the display text.

Some of the examples shown in the ‘321 and ‘889 patents show a medical record as displayed with hyperlinks by a browser. The hyperlinks have been added to “data references” as that term has been defined by the Federal Circuit opinion. In the claims and patents, this display text is parsed, analyzed, examined, or identified. The ‘321 and ‘889 patents teach away from searching the hidden programming codes. For example, in the case of a medical report, a report date is often required in order to create a link. For example, to create a link for the phrase “admission ECG,” the date is needed to provide the context for which many admission ECGs might be searched for, for example, the next closest date preceding the current date. If the date was not in the display text, a physician

could never trust a link that was generated to an “admission ECG,” she would have no context (and neither would the elements of the claims have a context to operate within) to know which admission ECG was being provided.

For this reason, the hidden codes are **not** parsed, analyzed, examined, or identified which is what Google frequently states in order to justify presenting prior art references that do not read on the claims at issue in the ‘889 and ‘321 patents.

8. My understanding of what a “record” means is also consistent with the Federal Circuit’s definition of “data reference” and other similar terms. For example, a “data reference” is “a unique phrase or word”. Phrases and words are in the display text of a record. There are no phrases or words in the hidden programming codes shown in the HTML sample provided above. They are only programming commands that start with “<” and end with a “>”.

9. Based on my analysis of the two patents at issue and the seven prior art references being relied upon by Google, I have reached the conclusion that none of the six claims in the two patents being asserted by HyperPhrase are anticipated by any of the prior art references at issue. See Exh. A, Rebuttal Report of de la Huerga, Appendices A-1-A-11.

10. I am presenting below additional claim charts to address issues newly raised by Google in their Memorandum in Support of their Motion for Summary Judgment of Invalidity.

11. The Thistlewaite/PasTime Reference is not prior art since it is after the priority dates for the asserted claims in the ‘321 and ‘889 patents. Even if it were prior

art, for some of the reasons listed below, it does not anticipate claims 1 and 7 of the '889 Patent.

U.S. Patent No. 5,903,889	Claim Elements Not Disclosed by Thistlewaite/PasTime
<p>1. A computer system with a plurality of data records on a plurality of databases,</p>	<p>Google states that Thistlewaite "... discloses a computer system comprised of a multitude of databases described as a Hyperbase". However, Google is wrong as Thistlewaite does not ever use the word "database" in reference to the term "hyperbase" in his article, and Thistlewaite cannot be implied to have a database. Instead, Thistlewaite employs the term "hyperbase" which has a number of different definitions in the computer field.</p> <p>One definition used by P. Lopisteguy et al. in their 1996 article "Experiences and Reflection on the Use of a Hypermedia Framework for Hypermedia Functionality Integration" available at <a href="http://www.cs.nott.ac.uk/~hla/HTF/HTFII/Lopisteguy.html">http://www.cs.nott.ac.uk/~hla/HTF/HTFII/Lopisteguy.html</a> is that:  "“The Hyperbase stores hyperspace topological information by means of components (nodes and links), anchors and specifiers as described in the Dexter's Storage Layer.”</p> <p>In this case, if a Hyperbase is a database, it is only to store information about documents, but not the documents themselves.</p> <p>Another definition is provided by Luiz Fernando G. Soares et al. in their undated article "Nested Composite Nodes and Version Control in Hypermedia Systems" available at <a href="http://cs-people.bu.edu/dgd/workshop/soares.html">http://cs-people.bu.edu/dgd/workshop/soares.html</a>:</p> <p style="padding-left: 40px;">“We define the public hyperbase, denoted by HB, as a special type of context node that groups together sets of terminal nodes and user context nodes. All nodes in HB must be committed or obsolete and, as in all hyperbases, if a composite node C is in HB, then all nodes in C must also belong to HB. The public hyperbase contains information which is public and stable.”</p> <p>The Encyclopedia of Microcomputers, vol. 24, 1999, by Allen Kent states on page 7:“The tool for disclosing a set of documents is a hypermedia-based information-retrieval system. The frame of reference in this article is a two-level hypermedia architecture (18). This describes how a hypermedia can be formed by creating two level: the document level or hyperbase, and the index level or hyperindex.”</p> <p>Other sources such as Webopedia (<a href="http://www.webopedia.com">www.webopedia.com</a>), <a href="http://www.computer-dictionary-online.org">www.computer-dictionary-online.org</a>, the IEEE Computer Society (<a href="http://search3.computer.org">search3.computer.org</a>), and the Microsoft Development Network (<a href="http://www.msdn.com">www.msdn.com</a>) when searched all report “no results” when a search for the term “hyperbase” is made.</p> <p>We are, therefore, left without any clear understanding as to what a “hyperbase” is, and it is certainly not a term in common use.</p> <p>From Thistlewaite, we are left to assume that a “hyperbase” stores HTML modified documents in a file system.</p>

U.S. Patent No. 5,903,889	Claim Elements Not Disclosed by Thistlewaite/PasTime
	<p>Thistlewaite’s use of database on Page 166 relates to alternate systems not his own:</p> <p style="padding-left: 40px;">“In the persistent open strategy, separate link database is kept in which the source and target information for a link are represented as a couple ...”</p> <p>Hence, the terms “hyperbase” and database are not one and the same in Thistlewaite.</p> <p>Furthermore, Google states Thistlewaite “discloses .... multitude of databases.” Again, this is not correct. Thistlewaite never uses the term “database” in reference to the term, “hyperbase.” And, even if it is assumed that a hyperbase is a database, Thistlewaite makes it abundantly clear there is one and only one hyperbase to which he refers. In the Thistlewaite’s 12 page paper, he mentions either “A hyperbase” or “The hyperbase” no less than 29 times in referring to his work. Not once does he use the plural version of the word “hyperbase” in discussing his work.</p>
<p>and a standardized format for addressing said data records, said computer system comprising:</p>	<p>Google says that Thistlewaite uses a standardized address format. Google has erred, this is not the case. We reproduce the section 5.1 Data Capture on Page 171 that Google relied on, but we will read it as Thistlewaite wrote it.</p> <p style="padding-left: 40px;">“As new files become available, Parliament uses the FTP protocol to transfer the file into a special directory on our server, which is automatically monitored. When a new file is detected, the following automatic processes are applied:</p> <ol style="list-style-type: none"> <li>1. the file is examined to determine which sub-collection it belongs to (e.g. Senate Hansard, Standing Orders, etc.)</li> <li>2. a document identifier index is generated listing the start byte location and byte extent of each atomic component document in the file together with a canonical identifier for that component, such as “Hansard/Senate/1996/May/22/article_10” (but the file is not physically partitioned into separate smaller files).</li> <li>3. attribute information is extracted (or deduced) for each document – for example, sub-collection type, the name, the name of the speaker, - and is stored in a separate file</li> <li>4. and finally, each component is indexed by a concordance-style IR subsystem, so that the hyperbase is searchable.”</li> </ol> <p>In this section, there is no discussion of “standardized address format” for the individual files. What is presented instead is that when a new file is available it is placed in a special directory that is monitored for the presence of new files (of any name or naming format). Once a new file is located, it is examined to determine what sub-collection it belongs in and then the file is further examined to apparently find the start and ending of each “atomic document”. No discussion is presented on how the atomic documents are found. Then an index is created identifying the start byte location and the byte extent of each atomic document within the file.</p>

U.S. Patent No. 5,903,889	Claim Elements Not Disclosed by Thistlewaite/PasTime
	<p>This is far from Google’s reading of Thistlewaite, there is no standardized address format presented and the begin byte offset is for each atomic document that is within a file – not the begin byte offset of the file in the hyperbase.</p> <p>It should be pointed out that Google’s concept of a byte offset of a file within the hyperbase, would clearly be an admission that the hyperbase is actually just one large file and cannot possibly be multiple databases.</p>
(a) a user interface having an interactive display program for requesting one of said data records and displaying a plurality of interface supported data formats;	
(b) means for receiving a reference to a first data record from said interactive display program;	<p>The Federal Circuit in its Dec. 26, 2007, ruling stated that a data reference is: “a unique phrase or word which may be used in a record to refer to another record or record segment,” and that a data reference may refer to one or more than one record.”</p> <p>Thistlewaite does not discuss the use of links to refer to more than one data record. Thistlewaite is precise that any link is to point to a specific record only, and not to more than one record. In addition, the Federal Circuit stated (p. 7) that the terms “data reference,” “record reference,” “specifying reference,” and “reference” are used throughout the Patents-In-Suit interchangeably and have the same meaning. As such, Thistlewaite does not contain a “reference” in a data record as defined by the Federal Circuit.</p>
(c) means for retrieving said first data record;	
(d) means for parsing said first data record to identify a reference to a second data record;	<p>The term “means for parsing” is both definite and enabled. Regarding the means for parsing, Fig. 1 in the ‘889 patent shows hospital computer network 100, including Data Translation and Collection System 110. Data Translation and Collection System 110 is used throughout this patent to perform various software steps as shown in Figs. 5A–5F, Figs. 12A–12 C, Figs. 13A–13C, and Figs. 15A–15B. The Brief Description of the Drawings section states, for example, at col. 5, l. 66 to col. 6, l. 4:</p> <p>“FIGS. 13A-13C are a functional flow chart showing the steps by which the <u>data translation and collection system</u> processes a data record received or retrieved from a workstation or database system on the medical computer network, reformat the data record, assign it a URL address, and deliver it to a database for storage.” (emphasis added)</p> <p>The ‘889 patent also states in col. 9, ll. 19 – 23:</p> <p>“FIGS. 13A-13C set forth an alternate embodiment of the operation of the data translation and collection system 110 (FIG. 1) with particular reference to receiving, translating, and formatting data records to facilitate access through browsers and hypertext links for future users.”</p> <p>Step 654 of Fig. 13A refers to the action of “PARSE Record” which is performed, for example, by the data translation and collection system 110. The exact steps to parse a record are shown in Figs. 15A–15B and in col. 16,</p>



U.S. Patent No. 5,903,889	Claim Elements Not Disclosed by Thistlewaite/PasTime
	<p>ll. 27-36:            FIG. 15A illustrates how a data record is parsed. A data record is parsed to locate data references by searching it for text corresponding to a hypertext link or a multimedia data request. If one is found, the URL is located after the initial control sequence and will be saved (step 812) for use after the parsing is completed. If none are found, or when the record has been completely parsed, another pass can be made to search for data references in the form of key words or key phrases (step 820).</p> <p>The means for parsing is the data translation and collection system 110 performing a series of comparisons and matches steps as is well known to one of ordinary skill in the art. Reference sub-section G. Parsing to Locate Data references at col. 16, ll. 27-59 and Figs. 15A and 15B (the entire figures) of the '889 patent, which explains how text (not computer code) in a data record is parsed. Col. 16, ll. 27-36 of the '889 patent states:            FIG. 15A illustrates how a data record is parsed. A data record is parsed to locate data references by searching it for text corresponding to a hypertext link or a multimedia data request. If one is found, the URL is located after the initial control sequence and will be saved (step 812) for use after the parsing is completed. If none are found, or when the record has been completely parsed, another pass can be made to search for data references in the form of key words or key phrases (step 820).</p> <p>This section explains how text is recognized in a first data record and how it can be converted into a hyperlink to be used to retrieve a second data record. This section shows a sample address computed to retrieve an "Admission ECG" and the corresponding HTML programming codes that are added to the first record according to Step 600 of Fig 12C as described in col. 9, ll. 7-11. Parsing a data record is also discussed in Figs. 13A and 13B of the '889 patent. In addition, as is well-known to one of ordinary skill in the art, parsing was a well-known concept in the 1995 time frame.</p> <p>The Federal Circuit in its Dec. 26, 2007, ruling stated that a data reference is: "a unique phrase or word which may be used in a record to refer to another record or record segment," and that a data reference may refer to one or more than one record."</p> <p>Thistlewaite does not discuss the use of links to refer to more than one data record. Thistlewaite is precise that any link is to point to a specific record only, and not to more than one record. In addition, the Federal Circuit stated (p. 7) that the terms "data reference," "record reference," "specifying reference," and "reference" are used throughout the Patents-In-Suit interchangeably and have the same meaning. As such, Thistlewaite does not contain a "reference" in a data record as defined by the Federal Circuit.</p>
<p>(e) means for modifying said reference to said second data record to create an address, said address being operable to retrieve said second data record; and</p>	<p>Google presents text from Thistlewaite on Page 168:            "Consequently, at the time of serving a document to a client, <u>a link is only embedded</u> into the byte stream by the CGI program doing the pattern detection and link resolution if (i) an expression matches one of the source anchor patterns applicable to that document, and (ii) <u>the corresponding target document exists.</u>" (emphasis added)</p>

U.S. Patent No. 5,903,889	Claim Elements Not Disclosed by Thistlewaite/PasTime
	<p>To create a link, Thistlewaite must verify that the target exists which is clearly not an element of Claim 1 and teaches away from the '321 patent as it does not matter if a referenced record exists or not. The '461 patent, one of the patents the '321 patent is a continuation-in-part of, even states at col. 10 l. 64 to col. 11, l. 2:</p> <p>“Moreover, the creator of the admission report has established the necessary hyperlinks to the admission ECG, previous ECG, previous discharge cath and admission CK enzyme reports without even knowing whether those reports were in existence (published or otherwise) at the time of the admission report's creation.”</p>
(f) means for sending said modified first data record to said interactive display program.	
7. The computer system of claim 1, wherein said reference to said second data record comprises a keyword phrase.	Same reasons as noted above for claim 1.

12. The Thistlewaite/PasTime Reference is not prior art since it is after the priority dates for the asserted claims in the '321 and '889 patents. Even if it were prior art, for some of the reasons discussed below, it does not anticipate claims 1 and 24 of the '321 Patent.

U. S. Patent No. 6,516,321	Elements Not Disclosed by Thistlewaite/PasTime
<p>1. A method for identifying a referenced record referenced in a referencing record wherein the referenced record is referenced in the referencing record by at least a combination including a data reference (DR) and a modifier reference (MR), the method comprising the steps of:</p>	<p>Google presents the <i>faux pas</i> Thistlewaite discloses of identifying the text “Prime Minister” and then linking it the current Prime Minister when the a previous Prime Minister is discussed. Thistlewaite reveals on Page 172:</p> <p>“This problem was corrected by extending Form (4) link descriptors to take additional arguments to the function for calculating the target of a source anchor expression – in addition to taking whatever string matched the pattern, the function can also take <u>attribute information</u> for the document (in this case, the date), which enables the identification of the correct target to be computed.”(emphasis added)</p> <p>However, a reading of Thistlewaite on Page 171:</p> <p>“3. <u>attribute information</u> is extracted (or <u>deduced</u>) for each document – for example, sub-collection type, the name, the name of the speaker, - and is stored in a separate file” (emphasis added)</p> <p>So the “attribute information” that will be used by the function is stored in a separate file, and not part of the atomic document. Once again we are left to our imagination how the date was, as Thistlewaite himself says,</p>

U. S. Patent No. 6,516,321	Elements Not Disclosed by Thistlewaite/PasTime
	<p>“deduced”. Both the fact the information is stored in a separate file is not an element of Claim 1 which only examines information in the text of a document not in a separate file for a modifier reference.</p> <p>Claim 1 also used a modifier reference rule set to search for a modifier reference. It discusses search rules, none of which can be deduction. Consider some of the examples shown in the patents present medical records where patient ID information are clearly presented for a physician to read. Many of the operations to link a data reference to another record rely on knowing the patient ID number to create a link. However, if the patient ID number were not clearly present on the display and absolutely determined no physician could rely on any of the links created to take them to one or more referenced records for the correct patient.</p> <p>The Federal Circuit in its Dec. 26, 2007, ruling stated that a data reference is:</p> <p style="padding-left: 40px;">“a unique phrase or word which may be used in a record to refer to another record or record segment,” and that a data reference may refer to one or more than one record.”</p> <p>Thistlewaite does not discuss the use of links to refer to more than one data record. Thistlewaite is precise that any link is to point to a specific record only, and not to more than one record. Hence, Thistlewaite does not teach a “data reference (DR)” as defined by the Federal Circuit.</p>
(i) receiving the referencing record;	
(ii) analyzing the referencing record to identify a DR, when a DR is identified:	<p>Google presents the text on Page 168 of Thistlewaite:</p> <p style="padding-left: 40px;">“Consequently, at the time of serving a document to a client, <u>a link is only embedded</u> into the byte stream by the CGI program doing the pattern detection and link resolution if (i) an expression matches one of the source anchor patterns applicable to that document, and (ii) <u>the corresponding target document exists.</u>” (emphasis added)</p> <p>To create a link, Thistlewaite must verify that the target exists which is clearly not an element of Claim 1 and teaches away from the ‘321 patent as it does not matter if a referenced record exists or not. The ‘461 patent, one of the patents the ‘321 patent is a continuation-in-part of, even states at Col. 10 L. 64 to Col. 11 L. 2:</p> <p style="padding-left: 40px;">“Moreover, the creator of the admission report has established the necessary hyperlinks to the admission ECG, previous ECG, previous discharge cath and admission CK enzyme reports without even knowing whether those reports were in existence (published or otherwise) at the time of the admission report’s creation.”</p> <p>The Federal Circuit in its Dec. 26, 2007, ruling stated that a data reference is:</p> <p style="padding-left: 40px;">“a unique phrase or word which may be used in a record to refer to another record or record segment,” and that a data reference may refer to one or more than one record.”</p> <p>Thistlewaite does not discuss the use of links to refer to more than one data</p>

<b>U. S. Patent No. 6,516,321</b>	<b>Elements Not Disclosed by Thistlewaite/PasTime</b>
	record. Thistlewaite is precise that any link is to point to a specific record only, and not to more than one record. Hence, Thistlewaite does not teach a “data reference (DR)” as defined by the Federal Circuit.
(a) identifying an MR rule set (MRRS) specifying the relationship between an MR and the DR;	
(b) analyzing the referencing record in accordance with the MRRS to identify the existence of the MR and, when the MR is identified;	
(c) identifying the referenced record associated with the DR/MR combination.	<p>The Federal Circuit in its Dec. 26, 2007, ruling stated that a data reference is:</p> <p style="padding-left: 40px;">“a unique phrase or word which may be used in a record to refer to another record or record segment,” and that a data reference may refer to one or more than one record.”</p> <p>Thistlewaite does not discuss the use of links to refer to more than one data record. Thistlewaite is precise that any link is to point to a specific record only, and not to more than one record. Hence, Thistlewaite does not teach a “data reference” as defined by the Federal Circuit.</p>
24. The method of claim 1 further including the step of linking the record reference to the referenced record.	Same reasons as noted above for claim 1.

13. For some of the reasons discussed below, U.S. Patent No. 5,815,830 to Anthony does not anticipate claims 1 and 7 of the ‘889 patent.

<b>U. S. Patent No. 5,903,889</b>	<b>Claim Elements Not Disclosed by Anthony</b>
1. A computer system with a plurality of data records on a plurality of databases,	<p>Anthony discusses the use of HyperNode™, a file format he uses, HyperDB™, a specialized database, XGL Hypertext Voyager™ as the implementation of his invention, and Auto_Hyperlinks™. No documentation of these products is provided in the patent.</p> <p>Anthony does not disclose a plurality of databases. The Summary of the Invention and the Detailed Description of the Invention sections and the Drawings do not discuss or show “databases” (in plural). The only place where “databases” are discussed is in referring to prior art systems in the Background of the Invention section.</p> <p>Instead, in the Summary of the Invention and the Detailed Description of the Invention sections, the phrase “a database” or “the database” is used 32 times in 3½ pages of text.</p> <p>Anthony discusses a process to recognize text between documents that</p>

U. S. Patent No. 5,903,889	Claim Elements Not Disclosed by Anthony
	<p>teaches away from using this scheme on a system that has multiple databases. Anthony envisions a record storage scheme where text is stored in one section and a unique topic name is stored in another section of it; this is of Anthony's own design. Furthermore, if it were spread across multiple databases, they not only would have to adopt a storage scheme, the data owners would have to agree to mutually exclusive unique names (for which Anthony has no solution), and the time to search every record in multiple databases to see which one has a topic name matching a text sequence becomes impossibly long as every record in every database has to be checked before a match might be made.</p>
<p>and a standardized format for addressing said data records, said computer system comprising:</p>	<p>Anthony does not propose a standard addressing scheme. Instead, Anthony discloses a process where when a text record is prepared, the person creating it also provides a unique reference name (topic name) that is stored in the record. When a record is read, the text portion is compared against the topic names stored in a portion of all the other records stored in the database. When a match is located, a link is created between the record text and the record with the matching topic name. The link is created not using a standard addressing scheme, but using whatever (random) address the record with the matching topic name is stored at. The address can be as variable and random as the personal choices of a person storing records on their own computer file systems.</p> <p>In col. 5, ll. 11-15, Anthony discusses that:</p> <p style="padding-left: 40px;">“... the database which stores the topic test, reference name, and other identifiers. Such identifiers not the location of the data for each topic; and provide the navigation for the hypertext jumps.”</p> <p>The text “location of the data for each topic” is undefined to its exact meaning. It may refer to a byte offset in the record where text for a specific topic can be found. But it does not appear to be a file or database address.</p> <p>Even if the topic names are stored in a separate file, Anthony does not describe a standardized addressed format.</p>
<p>(a) a user interface having an interactive display program for requesting one of said data records and displaying a plurality of interface supported data formats;</p>	<p>Anthony does not describe an interactive display program displaying a plurality of display formats.</p> <p>Anthony is silent on the XGL Hypertext Voyager™ in his invention. We only know that it can display text. Pictures are mentioned as potential links, but without display by any of Anthony's software, see col. 3, ll. 14 - 16:</p> <p style="padding-left: 40px;">“If the requested topic is a text topic, the process is repeated for the new topic. If the requested topic is a picture, or video topic, it will be shown or played without moving from the current text topic.”</p>
<p>(b) means for receiving a reference to a first data record from said interactive display program;</p>	
<p>(c) means for retrieving said first data record;</p>	

U. S. Patent No. 5,903,889	Claim Elements Not Disclosed by Anthony
<p>(d) means for parsing said first data record to identify a reference to a second data record;</p>	<p>The term “means for parsing” or “parsing” is both definite and enabled. Regarding the means for parsing, Fig. 1 in the ‘889 patent shows hospital computer network 100, including Data Translation and Collection System 110. Data Translation and Collection System 110 is used throughout this patent to perform various software steps as shown in Figs. 5A–5F, Figs. 12A–12 C, Figs. 13A–13C, and Figs. 15A–15B. The Brief Description of the Drawings section states, for example, at col. 5, l. 66 to col. 6, l. 4:</p> <p>“FIGS. 13A-13C are a functional flow chart showing the steps by which the <u>data translation and collection system</u> processes a data record received or retrieved from a workstation or database system on the medical computer network, reformat the data record, assign it a URL address, and deliver it to a database for storage.” (emphasis added)</p> <p>The ‘889 patent also states in col. 9, ll. 19 – 23:</p> <p>“FIGS. 13A-13C set forth an alternate embodiment of the operation of the data translation and collection system 110 (FIG. 1) with particular reference to receiving, translating, and formatting data records to facilitate access through browsers and hypertext links for future users.”</p> <p>Step 654 of Fig. 13A refers to the action of “PARSE Record” which is performed, for example, by the data translation and collection system 110. The exact steps to parse a record are shown in Figs. 15A–15B and in col. 16, ll. 27-36:</p> <p>FIG. 15A illustrates how a data record is parsed. A data record is parsed to locate data references by searching it for text corresponding to a hypertext link or a multimedia data request. If one is found, the URL is located after the initial control sequence and will be saved (step 812) for use after the parsing is completed. If none are found, or when the record has been completely parsed, another pass can be made to search for data references in the form of key words or key phrases (step 820).</p> <p>The means for parsing is the data translation and collection system 110 performing a series of comparisons and matches steps as is well known to one of ordinary skill in the art. Reference sub-section G. Parsing to Locate Data references at col. 16, ll. 27-59 and Figs. 15A and 15B (the entire figures) of the ‘889 patent, which explains how text (not computer code) in a data record is parsed. Col. 16, ll. 27-36 of the ‘889 patent states:</p> <p>FIG. 15A illustrates how a data record is parsed. A data record is parsed to locate data references by searching it for text corresponding to a hypertext link or a multimedia data request. If one is found, the URL is located after the initial control sequence and will be saved (step 812) for use after the parsing is completed. If none are found, or when the record has been completely parsed, another pass can be made to search for data references in the form of key words or key phrases (step 820).</p> <p>The Federal Circuit in its Dec. 26, 2007, ruling stated that a “data reference” or “reference” is:</p> <p>“a unique phrase or word which may be used in a record to refer to another record or record segment,” and that a data reference may</p>

U. S. Patent No. 5,903,889	Claim Elements Not Disclosed by Anthony
	<p>refer to one or more than one record.”</p> <p>Anthony is specific that each record must have a unique topic name, col. 4, ll. 16 – 18:                      “A reference name 600 is a unique, meaningful name which indicates the subject matter of the data portion to which it refers.”</p> <p>Text in a record that matches a topic name will at most link to a single record. Therefore, Anthony cannot teach a system where a “reference” may refer to more than one record as required by the Federal Circuit’s definition of “reference.”</p>
<p>(e) means for modifying said reference to said second data record to create an address, said address being operable to retrieve said second data record; and</p>	<p>The term “means for modifying” or “modifying” is both definite and enabled. Regarding the means for modifying, Fig. 1 in the ‘889 patent shows hospital computer network 100, including Data Translation and Collection System 110. Data Translation and Collection System 110 is used throughout this patent to perform various software steps as shown in Figs. 5A–5F, Figs. 12A–12 C, Figs. 13A–13C, and Figs. 15A–15B. The Brief Description of the Drawings section states, for example, at col. 5, l. 66 to col. 6, l. 4:                      “FIGS. 13A-13C are a functional flow chart showing the steps by which the <u>data translation and collection system</u> processes a data record received or retrieved from a workstation or database system on the medical computer network, reformat the data record, assign it a URL address, and deliver it to a database for storage.” (emphasis added)</p> <p>The ‘889 patent also states in col. 9, ll. 19 – 23:                      “FIGS. 13A-13C set forth an alternate embodiment of the operation of the data translation and collection system 110 (FIG. 1) with particular reference to receiving, translating, and formatting data records to facilitate access through browsers and hypertext links for future users.”</p> <p>Figure 14D shows a record that has been modified by the data translation and collection system 110.</p> <p>The patent at col. 11, ll. 6-9 states:                      “FIG. 14E shows the text report 724 with imported image 737 as displayed on computer display 118 using a network browser software package after the report has been translated and modified.”</p> <p>and at col. 3, ll. 34–38 states:                      “The present invention utilizes specification tables identifying each of the information processors or databases used by the hospital, the types of data records stored by the databases, and instructions and algorithms for accessing, modifying, and processing data records and their addresses, depending on the data type.”</p> <p>Anthony does not discuss modifying the data record to the interactive program. Anthony’s only discussion of HTML or markup codes is in col. 1, l. 66 to col. 2, l. 3:                      “This procedure would usually involve the author in having to mark cross-reference words and phrases with special codes or with some form or computer language. A known standard for coding such links is Hypertext Markup Language (HTML)”</p>

U. S. Patent No. 5,903,889	Claim Elements Not Disclosed by Anthony
	<p>This is a discussion not of his XGL Hypertext Voyager(t) software, but manual methods web programmers have to undertake. Anthony then goes on to document the limits of a person to properly create links manually or to keep them up to date.</p> <p>However, Anthony never refers to HTML when describing his own invention. Instead, Anthony teaches displaying a text record on a screen and underlining and bolding the text, see col. 6, ll. 21 – 24:  “‘The words highlighted in bold and underlined have been automatically shown as hyperlinks.’”</p> <p>The reader is not taught whether Anthony refers to an HTML coded hyperlink or other hyperlink mechanism.</p> <p>For example, Anthony only has to keep track of the cursor position on the screen. When the cursor is activated and it is over underlined text, Anthony’s software need only compare its screen position to a list of screen positions then use a corresponding record file name that is stored separately from the record text. In this manner, Anthony affects a link <i>without</i> modifying the record or its text, as required by this claim.</p> <p>Anthony does not create an address, the address of a link is provided by the record that is scanned to determine if it has a topic name that matches text in another record. The address is provided by the author of the document when it is stored.</p> <p>The claim has no requirement, as suggested by Google, that the first data record be permanently modified to include a hyperlink.</p>
<p>(f) means for sending said modified first data record to said interactive display program.</p>	<p>The term “means for sending” or “sending” is both definite and enabled. Regarding the means for sending, Fig. 1 in the ‘889 patent shows hospital computer network 100, including Data Translation and Collection System 110. Data Translation and Collection System 110 is used throughout this patent to perform various software steps as shown in Figs. 5A–5F, Figs. 12A–12 C, Figs. 13A–13C, and Figs. 15A–15B. The Brief Description of the Drawings section states, for example, at col. 5, l. 62 – 65:  “FIGS. 12A-12C are a functional flow chart showing the steps used to receive a request for a data record, translate the request, retrieve the data record, and reformat the data record prior to <u>sending</u> it to its requested destination.” (emphasis added)</p> <p>and at col. 9, ll. 12–15 states:  “‘In step 604, the data <u>translation and collection system 110</u>, having retrieved and translated the requested record, forwards the record to the destination selected by the requesting workstation or processor.’”</p> <p>Step 604 in Fig. 12C states:  “Send the desired and translated record to the requesting processor or workstation.”</p>
<p>7. The computer system of claim 1, wherein said reference to said second data record comprises a keyword phrase.</p>	<p>The same reasons noted above apply to claim 7.</p>



14. For some of the reasons discussed below, the Graham HTML Sourcebook does not anticipate claims 1 and 24 of the '321 patent.

U. S. Patent No. 6,516,321	Claim Elements Not Disclosed in Graham
<p>1. A method for identifying a referenced record referenced in a referencing record wherein the referenced record is referenced in the referencing record by at least a combination including a data reference (DR) and a modifier reference (MR), the method comprising the steps of:</p>	<p>Graham does not teach a referencing record having a combination of at least a data reference and a modifier reference.</p> <p>The Graham reference cited by Google is a series of definitions and grammatical structures for a programming language called HTML. As such, Graham does not describe parsing a first data record to identify a reference to a second data record.</p> <p>Google's comment that:  "Partial URLs are very useful when constructing large collections of documents that will be kept together. Of course relative URLs become invalid if a document is moved to a new directory or a new Internet site. This problem can be mitigated using the BASE element of the HTML, which is used to record the correct BASE URL of a document. If the document is moved, all relative URLs are determined relative to the URL recorded by the BASE element."</p> <p>shows that at best Google is pointing to the hidden HTML programming codes to find a data reference, not the display text of the records to find a data reference. A URL is not part of the display text nor is a BASE element a modifier reference (which is also in the display text)</p> <p>Nowhere does Google attempt to match any of this text to the elements of the claimed elements, e.g., a data reference or a modifier reference. Instead, we learn that HTML programmers can use shorthand or an abbreviation in referring to file or resource names as more completely explained by Graham in the larger section in Chapter 1 also titled "Partial URLs." Graham, HTML Sourcebook, pp. 22 to 26. For example, on p. 22, we see:  "Partial URLs  The <i>target</i> of the <i>hypertext</i> link is indicated by the <i>anchor</i> attribute HREF, which takes as its value the URL of the target document or resource. As mentioned in the Introduction, a URL is a text string that indicates the server protocol (HTTP, FTP, WAIS, etc.) to use in accessing the resource, the Internet Domain Name of the server, and the location and name of the resource on that particular server. Obviously, the HREF attributes in Figure 1.4 do not contain all this information! These URLs are examples of <i>partial</i> URLs, which are a shorthand way of referring to files or other resources <i>relative</i> to files or other resources relative to the URL of the document being currently viewed."</p> <p>However, the partial URL is merely a shorthand or an abbreviation for a complete URL that is an address that has already been fully defined by the HTML programmer <i>prior</i> to sending the initial record so it can be displayed. The programmer is merely seeking, for the portions of the address he has abbreviated, to substitute either the implied base address of</p>

U. S. Patent No. 6,516,321	Claim Elements Not Disclosed in Graham
	<p>the source of the initial record or the implied base address he has already provided in the HTML code.</p> <p>The Federal Circuit has ruled that “data reference” is:                      ”“a unique phrase or word which may be used in a record to refer to another record or record segment,” and that a data reference may refer to one or more than one record.”</p> <p>The Court should not accept Google’s attempts to ignore or rewrite the Federal Circuit’s opinion.</p> <p>Once again, no part of Graham speaks to the need for there to be a DR and a MR used in combination.</p>
(i) receiving the referencing record;	
(ii) analyzing the referencing record to identify a DR, when a DR is identified:	<p>Graham does not discuss analyzing a referencing record to identify a DR (data reference).</p> <p>The Federal Circuit in its December 26, 2007 ruling (p. 10) has defined a “data reference” as follows:                      “...“a unique phrase or word which may be used in a record to refer to another record or record segment,” and that a data reference may refer to one or more than one record.”</p> <p>quoting in part from the ‘321 patent at col. 8, ll. 29-31.</p> <p>Furthermore, Section G in the ‘889 patent (from which the ‘321 patent is a continuation-in-part) titled, “Parsing to Locate Data references,” states at col. 16, ll. 37-43:                      “... search for data references in the form of key words or key phrases (step 820).                      A key word or phrase is a recognized text string that is to be converted into a hypertext link. As an example, the data reference indicated by the phrase, “Admission ECG,” can be converted (steps 828, 830) into the following hypertext link:                      &lt;a href="http://www.st_mary.springfield/ecg/987654321/03may1997/ecg/admission.html"&gt;Admission ECG&lt;/a&gt;.”</p> <p>The ‘321 patent is a continuation-in-part of U.S. Patent 5,895,461, filed in Aug. 13, 1996 and a continuation-in-part of provisional patent application 60/023,126, filed on Jul. 30, 1996. Examining it also shows uses of the phrases “keyword” and “hypertext link reference” as being synonymous and reinforces the Federal Circuit decision (p. 7) that:                      “...the terms “data reference,” record reference,” “specifying reference,” and “reference,” as used throughout the Patents-In-Suit, are interchangeable and have the same meaning.”</p> <p>For example, in the ‘321 patent, examples are presented showing how the inventive method can be used to augment the user’s (in this example, the physician) productivity. It is not sensible to contemplate that users, such as physicians, (who are one set of target users, but not the only ones) are interested in seeing underlying programming codes or formatting codes, such as HTML. The Federal Circuit agreed that a “data reference” is “a unique phrase or word” which is meant to be read to understand the record.</p>

U. S. Patent No. 6,516,321	Claim Elements Not Disclosed in Graham
	<p>This clearly specifies that a “data reference” which is parsed must be in the form of keywords or key phrases in the text of a record. From the Federal Circuit’s ruling, we know that a “data reference” is the same as a phrase or word. It follows that what a keyword or phrase is not is a hidden tag, hidden markup language codes; or hidden programming codes.</p> <p>The Federal Circuit did not construe a “data reference” to encompass hidden programming codes. Every discussion of a data reference used by the Federal Circuit in its opinion refers to text that an ordinary person is intended to read when viewing a record on a browser screen. For example, the Federal Circuit (p. 9) used Fig. 14C to depict a “conventional text document” and identifies the text “Catheterization Reports” in Fig. 14C. The Federal Circuit did not refer to the hidden programming tags (e.g., hyperlink anchor tags) “&lt;a href=...” which are shown in Fig. 14D as a data reference.</p>
<p>(a) identifying an MR rule set (MRRS) specifying the relationship between an MR and the DR;</p>	<p>This claim element states there is a modifier reference rule set (MRRS) that identifies a relationship between an MR and a DR. For a DR like “ECG” (which matches the Federal Circuit’s definition of a “data reference”), the MRs can be a date, the text “report”, or “image.” The MRRS specifies rules that can be used to determine, for example, that the DR key word “ECG” can be combined with the MR “report” provided that when the DR/MR combination “ECG report” is found in a record, there is a relationship between the two which is different than another DR/MR combination of “ECG image”.</p> <p>In col. 12, ll. 36-40, the ‘321 patent states:          Column 210 lists a separate MRRS corresponding to each MR in column 208. For example, where MR1-1A is "previous", MRRS1-1A may indicate that, for MR1-1A to modify DR-1, the term "previous" must appear within five words before or after DR-1 within the examined document.</p> <p>In col. 12, ll., 52-57, the ‘321 patent states:          “In addition, the MRRS range may be any range including a text fragment, a sentence segment in which a DR appears, a sentence in which a DR appears, a paragraph in which a DR appears, a table cell in which a DR appears or an entire record (e.g. a patient ID# which appears once at the top of a record may modify every DR in the record).”</p> <p>Both of these excerpts from the ‘321 patent indicate that the MR is similar to a DR, i.e., it is a key word or key phrase in the portion of the display text of the record that is intended for a user/physician to read.</p> <p>Google, once again, promotes Graham to imply the existence of a MR (modifier reference) and a modifier reference rule set where there is none. All Graham can point to are hidden programming codes that are not data references or modifier references.</p> <p>If we attempt to impute from Google, which we should not, that the implied address of a disk or server from which a record has been retrieved or a programmer-created hidden meta tag is a modifier, then we would still be wrong.</p> <p>The ‘321 patent is replete with examples of modifier references, each one</p>

U. S. Patent No. 6,516,321	Claim Elements Not Disclosed in Graham
	<p>is a example of text that is intended to be read by the normal user/reader, for example, a physician. The examples shown in the '321 patent of modifier references include dates near a data reference, "previous", "admission", "report", "record", "image", or a patient ID number. None of these are hidden programming codes.</p> <p>Completely missing from Graham is any reference to the word or concept of a modifier reference or a modifier reference rule set. Graham cannot teach these concepts because it is entirely foreign to his purpose of providing HTML programming code definitions and grammar.</p> <p>Google states that Graham discloses a web browser that analyzes the record with the set of rules to find a programming code corresponding to a "BASE URL". However, hidden programming codes or computer addresses do not correspond to data references or modifier references, in accordance with the Federal Circuit's ruling. Again, as noted above, completely missing from Graham is any reference to the concept of a modifier reference or a modifier reference rule set. Graham cannot teach these concepts because it is entirely foreign to his purpose of providing HTML programming code definitions and grammar.</p> <p>The '321 patent describes how after a data reference (DR) is found in the display text, the display text is also searched for the presence of a modifier reference (MR) using a modifier reference rule set (MRRS). For example, as described in col. 12, ll. 36-40, the '321 patent states:</p> <p style="padding-left: 40px;">Column 210 lists a separate MRRS corresponding to each MR in column 208. For example, where MR1-1A is "previous", MRRS1-1A may indicate that, for MR1-1A to modify DR-1, the term "previous" must appear within five words before or after DR-1 within the examined document.</p> <p>In col. 16, ll. 52-57, the '321 patent states:</p> <p style="padding-left: 40px;">"In addition, the MRRS range may be any range including a text fragment, a sentence segment in which a DR appears, a sentence in which a DR appears, a paragraph in which a DR appears, a table cell in which a DR appears or an entire record (e.g. a patient ID# which appears once at the top of a record may modify every DR in the record)."</p> <p>Significantly, the '321 patent introduces the concept of a specifying reference (SR), which can be, for example, a data reference or a data reference/modifier reference combination. Among the claims in a patent, similar words must have similar meanings. Claim 86 of the '321 patent (also asserted against Google) states that "specifying references in one record to other records which are selectable to access the other records are visually distinguished from other record information". This tells us that only display text can be a data reference or modifying reference. Only display text can be so identified. Hidden program codes are not visible and when presented for programmers are not distinguished. In short, in the '321 patent, the terms "data reference" and "modifier reference" are display text and not the hidden programming codes that Google refers to.</p>
(b) analyzing the referencing record in accordance with the MRRS to identify the existence of the MR and,	This claim element describes that the record text where the data reference (DR) is found is also searched for the presence of a modifier reference (MR) using a modifier reference rule set (MRRS). For example, as

U. S. Patent No. 6,516,321	Claim Elements Not Disclosed in Graham
<p>when the MR is identified;</p>	<p>described in col. 12, ll. 36-40, the '321 patent states:                      Column 210 lists a separate MRRS corresponding to each MR in column 208. For example, where MR1-1A is "previous", MRRS1-1A may indicate that, for MR1-1A to modify DR-1, the term "previous" must appear within five words before or after DR-1 within the examined document.</p> <p>In col. 16, ll. 52-57, the '321 patent states:                      "In addition, the MRRS range may be any range including a text fragment, a sentence segment in which a DR appears, a sentence in which a DR appears, a paragraph in which a DR appears, a table cell in which a DR appears or an entire record (e.g. a patient ID# which appears once at the top of a record may modify every DR in the record)."</p> <p>Google can only point to hidden codes which are not part of sentence or paragraph (see above) and not the displayed text in a futile attempt to identify a modifier reference even where it does not exist.</p>
<p>(c) identifying the referenced record associated with the DR/MR combination.</p>	<p>Graham does not identify a referenced record that is associated with a DR/MR combination, because Graham never discusses data references or modifier references as defined by the Federal Circuit.</p> <p>Furthermore, the Federal Circuit has ruled that a "data reference (DR)" is:                      "... a unique phrase or word which may be used in a record to refer to another record or record segment," and that a data reference may refer to one or more than one record."</p> <p>It is clear that Google must also show that Graham intended the target of a hyperlink to be capable of referring to not just a single record, but "to refer to more than one record". Again, Graham is entirely silent on this issue.</p>
<p>24. The method of claim 1 further including the step of linking the record reference to the referenced record.</p>	<p>Google cannot show that this additional claim limitation is met by Graham. Google states:                      "Both the DR and the MR, concatenated together, are linked to the referenced record." See, Google's Memorandum, p. 40.</p> <p>However, this fails to meet the requirements of this claim where a linking step must be invoked to link the first record to a second record. Google cannot show a linking step because Graham has only indicated that an already existing link with a short-hand or abbreviated URL must already exist. The mere merging of the base address with the partial address only saves the programmer some effort and time. It does not create a link that was not already placed there by the programmer. The programmer knew exactly when she used the abbreviated URL, exactly what the completed URL would be and already created a hyperlink to use that unabbreviated address to retrieve another record.</p> <p>To consider this claim limitation to be met would be contrary to the intention of Graham who only describes a programming language and grammar.</p>

15. For some of the reasons discussed below, the Named Entity Task Definition Reference does not anticipate claim 27 of the '321 patent.

U. S. Patent No. 6,516,321	Claim Elements Not Disclosed by Named Entity Task Definition
<p>27. A method to be used with a rule set including subject matter specific tag pairs and corresponding search rules,</p>	<p>This claim preamble makes clear that the claim deals with “subject matter specific tag pairs and corresponding search rules” which means there are both “subject matter” tag pairs and “subject matter” corresponding rule sets. The ‘321 patent is quite clear that the tags referred to are markup language tags such as HTML or XML tags. Such tags are typically paired sets--a begin tag and an end tag that are placed around a specific text segment.</p> <p>The ‘321 patent text and this claim refers to tagging in either of two ways, either:</p> <ol style="list-style-type: none"> <li>1. the recognition of a data reference (subject matter) and the provision of markup language tags to retrieve a related data record or record segment thereof, or</li> <li>2. the unambiguous recognition of text that identifies and corresponds to a specific record segment (subject matter) and the provision of related markup language labeling that can be used by a tag enabled application to locate the specific segment in the record.</li> </ol> <p>Regarding the provision of tag pairs to create a hyperlink, Named Entity Task Definition is completely silent on this matter. He has no reason to discuss hyperlinking, when he is only attempting to infer the meaning of a sentence. The ‘321 patent is quite clear on the steps of locating data references and in some cases modifier references combined with data references to create links (by inserting tags before and after the data reference). The ‘321 patent is a continuation-in-part of 6 other patents can relay similar discussions going back to the provisional patent application Ser. No. 60/023,126 filed on July 30, 1996 and draft specification and drawings for that application extending back to April 10, 1996.</p> <p>The ‘321 patent also introduces new examples regarding the placement of tags (XML tags) not seen in the 60/023,126 provisional application, that need to be considered. This section referred to as “Tag Enabling” in the patent discusses the placement of begin tags at the start of a distinct segment of a record and an end tag at the end of the record segment. One purpose of the tags to ensure that the segment can be retrieved when a corresponding data reference refers to the segment. For example, the record segment of a comprehensive ECG record may include a segment “diagnosis” which when appropriately recognized using a rule set can be appropriately tagged with a beginning tag and an ending tag to identify it as the diagnosis segment and to retrieve this section from the larger record.</p> <p>When another medical record includes the data reference, “ECG diagnosis,” a link can be created that uses a tag enabled application to retrieve just the ECG diagnosis segment. The tag enabled application can search the ECG record for the record segment marked by the beginning and ending tags specifying it as the “diagnosis” segment.</p> <p>The ‘321 patent is precise that segments of a record are unambiguously recognized in order to be tagged to identify that segment. Once tagged, the segment can then be linked to by a subsequent data reference (DR).</p>

U. S. Patent No. 6,516,321	Claim Elements Not Disclosed by Named Entity Task Definition
	<p>The patent is replete with example of record segments that can be tagged, these examples include:</p> <ul style="list-style-type: none"> <li>Abstract (in a medical report)</li> <li>Diagnosis (in a medical report)</li> <li>Prescription (in a medical report)</li> <li>Heart rate (in a medical report)</li> <li>Title (in a U.S. patent)</li> <li>Cross Reference (segment in a U.S. patent)</li> <li>Background (in a U.S. patent)</li> <li>Fig. 1 description (in a U.S. patent)</li> <li>Claims (a section in a U.S. patent)</li> <li>Claim 1 (in a U.S. patent) and others.</li> </ul> <p>To proceed further with a review of the claim, we have to also understand the nature of the expression “subject matter tags” and “subject matter corresponding search rules”.</p> <p>In the ‘321 patent, “subject matter” only refers a data reference (DR) or to text that identifies a record segment. In the case of a DR, the tag pair can be the beginning and ending tags surrounding the DR to create a hyperlink. The search rules used to identify the data reference and possibly any related modifier references that are required prior to a hyperlink being formed are shown in Figs. 3, 6, 7, and 11.</p> <p>In the case of a record segment identifier, the tag pair, placed at the beginning of a record segment and at the end of the record segment, and the search rules used to identify a record segment are shown in Figs. 12 and 16.</p> <p>Additional discussion about record segments can be found at col. 2, ll. 34–46, which states:</p> <p style="padding-left: 40px;">“Recently another method and tool for accessing/manipulating data within a specific record has been developed which specifies universal “tags” which can be used within a record to earmark specific data types. An exemplary “tagging” language is the extensible markup language (XML). The tags are to be used by processor applications which are familiar with the tags to identify specific information types. Applications which are capable of recognizing tags are referred to hereinafter as “tag enabled” and records which include such tags are likewise referred to as tag enabled. Tags are typically paired including a “begin” tag and an “end” tag identifying the beginning and the end of a specific data type within a corresponding record.”</p> <p>In col. 5, ll. 13–24, the ‘321 patent states:</p> <p style="padding-left: 40px;">“Another object of the invention is to automatically determine whether or not <u>tags (e.g. may suitably be added to a record to identify specific record segments and information types therein</u></p>

U. S. Patent No. 6,516,321	Claim Elements Not Disclosed by Named Entity Task Definition
	<p>and, when appropriate, to automatically add the tags to render the record tag enabled so that a tag enabled application can identify specific information within the record.” (emphasis added)</p> <p>In col. 5, ll. 28-35, the ‘321 patent states:</p> <p>“Another object of the invention is to automatically determine whether or not tags (e.g. may suitably be added to a record to identify specific record segments and information types therein and, when appropriate, to automatically add the tags to render the record tag enabled <u>so that a tag enabled application can identify specific information within the record.</u>” (emphasis added).</p> <p>In col. 8, ll. 30-41, the ‘321 patent states:</p> <p>“DR column 30 includes a list of DRs. A DR is a unique phrase or word which may be used in a record to refer to another record or record segment. In the context of a medical facility an exemplary DR may be as simple as "medication given", "ECG report", or "Admission NMR heartbeat". As explained in more detail below, when a processor linking feature is selected, processor 14 searches for DRs in a specified record and, when a DR is identified, links the DR to a record or record segment associated with the DR via a hyperlink or other mechanism. In the preferred embodiment of the invention the longest DRs in a DR list include more than one word.”</p> <p>In col. 10, ll. 24 – 29, the ‘321 patent states:</p> <p>“When a DR is identified, processor 14 accesses table 5 and identifies the ARS which corresponds to the identified DR. Thereafter, processor 14 uses the ARS to identify information required to construct an address for the record or record segment associated with the identified DR.”</p> <p>In col. 13, ll. 10-17, the ‘321 patent states:</p> <p>“Systems are also contemplated which support both DRs and DR/MR combinations. For example, where DR-1 is term "ECG" and MR1-1A is term "previous", a specification like specification 4 in FIG. 3 and a specification like specification 200 in FIG. 6 may both be supported. In this case, where DR-1 is identified in a record and MR1-1A is not identified, a link to the record or segment associated with DR-1 may still be made. Similarly, when the DR-1/MR1-1A combination is identified, a link to the record or segment associated therewith can be made.”</p> <p>In col. 20, ll. 12-16, the ‘321 patent states:</p> <p>“To this end, generally, processor 14 is equipped to recognize characteristic sets which correspond to different record segments and, when a specific segment is identified, can place tags around the segment which are recognizable by other applications.”</p> <p>In col. 20, ll. 34-49, the ‘321 patent states:</p> <p>“For example, in the case of XML type patient ID 300, referring also to FIG. 13, XMLRS 312 includes a variable character string 314 which has a form recognizable as a patient ID. In the present case it is assumed that each patient at a medical facility is identified by an unambiguous and distinct character string including two numbers followed by two letters which are in turn followed by five numbers. In XMLRS 314 a "#" character</p>



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	<p>indicates a digit from 0 through 9 while an "X" character indicates a letter. The first two characters are reserved for a year indication (e.g., 99 for 1999, etc.) The third and fourth characters are reserved for first and last name initials (e.g., Mary Jones would be MJ). The final five characters indicate a unique consecutively assigned number provided via an admit, discharge, transfer (ADT) system (not illustrated) when a patient is admitted to the facility."</p>
<p>a separate tag pair for each of a plurality of different information types and a separate search rule for each pair, each pair including a begin tag and an end tag, the method comprising the steps of:</p>	<p>Named Entity Task Definition does show a single tag pair example for us to consider on page 322:</p> <pre>&lt;ELEMENT-NAME ATTR-NAME="ATTR-VALUE" ...&gt;text-string&lt;/ELEMENT-NAME&gt;</pre> <p>Example: &lt;ENAMEX TYPE="ORGANIZATION"&gt;Taga Co.&lt;/ENAMEX&gt;</p> <p>In this example, we do not see a data reference to a record segment that can be retrieved by a tag enabled application, for example, by referring to it in a data reference in another record. All we are shown is text whose meaning in a larger sentence has been inferred to correspond to an organization that has been manually labeled.</p> <p>Furthermore, Task Definition does not show a "subject matter search rules" to search for a record segment in a record as in element (b) of the claim. In fact, Task Definition <u>does not show any search rules</u>.</p> <p>This reference does refer to MUC-6 software which no longer appears to be in existence and for which no detailed operational documentation is provided in the reference.</p>
(a) receiving a record;	<p>Google states that Task Definition implements a method to receive a record and quotes the entire Section 2 of the Task Definition reference without citing to a specific section to identify "receiving a record".</p> <p>There is no reference to "receiving a record" in Task Definition.</p>
(b) examining the record according to the search rules to identify record segments including information of each of the information types;	<p>Task Definition does not examine a record to identify a data reference, a data reference and modifier reference combination or a record segment that can be recognized by a tag-enabled application.</p> <p>Instead, Task Definition only shows an arbitrary text segment "Taga Co." Task Definition does not show any search rules.</p> <p>The '321 patent uses the phrase record segment to describe text with a data reference, see, col. 13, ll. 53-58:</p> <p>"For example, assume a first combination including the MR "report" within two terms of the DR "ECG", a second DR/MR combination includes the MR "post-op" within five terms of the DR "X-ray image" and a record segment includes the phrase "The ECG post-op report and the X-ray image"."</p> <p>and to describe a distinct portion of a record, see, col. 22, ll. 14-19:</p> <p>"For example, in the case of a United States patent specification, it</p>

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	is known that each patent generally includes several different sections or segments such as an abstract, a background, a summary, a brief description of drawings, a detailed description, a set of claims, figures and so on.”
(c) when a record segment is identified which is of a particular information type:	<p>Task Definition does not discuss a record segment which is a data reference, data reference/modifier reference combination or a record segment that can be recognized by a tag enabled application (for example, a tag-enabled application retrieving a record segment referred to by a data reference in another record), and the record segment must be of a particular information type.</p> <p>Task Definition shows, at most, a single example of arbitrary text “Taga Co.” with tags around it.</p>
accessing the tag pair associated with the information type; inserting the begin tag before the identified segment and inserting the end tag after the identified segment.	<p>Task Definition does not identify record segments.</p> <p>Task Definition is, at most, showing what may be manually placed tags around an arbitrary text segment, not “subject matter specific tag pairs,” as required by this claim.</p>

16. For some the reasons discussed below, the Aberdeen Reference does not anticipate claim 27 of the ‘321 patent.

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27. A method to be used with a rule set including subject matter specific tag pairs and corresponding search rules, a separate tag pair for each of a plurality of different information types and a separate search rule for each pair, each pair including a begin tag and an end tag, the method comprising the steps of:	<p>This claim preamble makes clear that the claim deals with “subject matter specific tag pairs and corresponding search rules” which means there are both “subject matter” tag pairs and “subject matter” corresponding rule sets. The ‘321 patent is quite clear that the tags referred to are markup language tags, such as HTML or XML tags. Such tags are typically paired sets, a begin tag and an end tag that are placed around a specific text segment.</p> <p>The ‘321 patent text and this claim refers to tagging in either of two ways, either:</p> <ol style="list-style-type: none"> <li>1. the recognition of a data reference (subject matter) and the provision of markup language tags to retrieve a related data record or record segment thereof, or</li> <li>2. the unambiguous recognition of text that identifies and corresponds to a specific record segment (subject matter) and the provision of related markup language labeling that can be used by a tag-enabled application to locate the specific segment in the record.</li> <li>3.</li> </ol> <p>Regarding the provision of tag pairs to create a hyperlink, Aberdeen is completely silent on this matter. He has no reason to discuss hyperlinking when he is only attempting to infer the meaning of a sentence.</p>

U. S. Patent No. 6,516,321	Claim Elements Not Disclosed By Aberdeen
	<p>The '321 patent is quite clear on the steps of locating data references and, in some cases, modifier references combined with data references to create links (by inserting tags before and after) in the data reference. The '321 patent is a continuation-in-part of 6 other patents can relay similar discussions going back to the provisional patent application Ser. No. 60/023,126 filed on July 30, 1996 and draft specification and drawings for that application extending back to April 10, 1996.</p> <p>The '321 patent also introduces new examples regarding the placement of tags (XML tags) not seen in the 60/023,126 provisional application that need to be considered. This section referred to as "Tag Enabling" in the patent discusses the placement of begin tags at the start of a distinct segment of a record and an end tag at the end of the record segment. One purpose of the tags is to ensure that the segment can be retrieved when a corresponding data reference refers to the segment. For example, the record segment of a comprehensive ECG record may include a segment "diagnosis" which, when appropriately recognized using a rule set, can be appropriately tagged with a beginning tag and an ending tag to identify it as the diagnosis segment and to retrieve this section from the larger record.</p> <p>When another medical record includes the data reference "ECG diagnosis," a link can be created that uses a tag enabled application to retrieve just the ECG diagnosis segment. The tag enabled application can search the ECG record for the record segment marked by the beginning and ending tags specifying it is the "diagnosis" segment.</p> <p>The '321 patent is precise that segments of a record are unambiguously recognized in order to be tagged to identify that segment. Once tagged, the segment can then be linked to by a subsequent data reference (DR).</p> <p>The '321 patent is replete with example of record segments that can be tagged. These examples include:</p> <ul style="list-style-type: none"> <li>Abstract (in a medical report)</li> <li>Diagnosis (in a medical report)</li> <li>Prescription (in a medical report)</li> <li>Heart rate (in a medical report)</li> <li>Title (in a U.S. patent)</li> <li>Cross Reference (segment in a U.S. patent)</li> <li>Background (in a U.S. patent)</li> <li>Fig. 1 description (in a U.S. patent)</li> <li>Claims (a section in a U.S. patent)</li> <li>Claim 1 (in a U.S. patent) and others.</li> </ul> <p>To proceed further with a review of the claim, we have to also understand the nature of the expression "subject matter tags" and "subject matter corresponding search rules".</p>

U. S. Patent No. 6,516,321	Claim Elements Not Disclosed By Aberdeen
	<p>In the '321 patent, "subject matter" only refers a data reference (DR) or to text that identifies a record segment. In the case of a DR, the tag pair can be the beginning and ending tags surrounding the DR to create a hyperlink. The search rules used to identify the data reference and possibly any related modifier references that are required prior to a hyperlink being formed are shown in Figs. 3, 6, 7, and 11.</p> <p>In the case of a record segment identifier, the tag pair placed at the beginning of a record segment and at the end of the record segment, and the search rules used to identify a record segment are shown in Figs. 12 and 16.</p> <p>Additional discussion about record segments can be found at col. 2, ll. 34-46 which states:</p> <p style="padding-left: 40px;">"Recently another method and tool for accessing/manipulating data within a specific record has been developed which specifies universal "tags" which can be used within a record to earmark specific data types. An exemplary "tagging" language is the extensible markup language (XML). The tags are to be used by processor applications which are familiar with the tags to identify specific information types. Applications which are capable of recognizing tags are referred to hereinafter as "tag enabled" and records which include such tags are likewise referred to as tag enabled. Tags are typically paired including a "begin" tag and an "end" tag identifying the beginning and the end of a specific data type within a corresponding record."</p> <p>In col. 5, ll. 13-24, the '321 patent states:</p> <p style="padding-left: 40px;">"Another object of the invention is to automatically determine whether or not <u>tags (e.g. may suitably be added to a record to identify specific record segments and information types therein</u> and, when appropriate, to automatically add the tags to render the record tag enabled so that a tag enabled application can identify specific information within the record." (emphasis added)</p> <p>In col. 5, ll. 28-35, the '321 patent states:</p> <p style="padding-left: 40px;">"Another object of the invention is to automatically determine whether or not tags (e.g. may suitably be added to a record to identify specific record segments and information types therein and, when appropriate, to automatically add the tags to render the record tag enabled <u>so that a tag enabled application can identify specific information within the record.</u>" (emphasis added).</p> <p>In col. 8, ll. 30-41, the '321 patent states:</p> <p style="padding-left: 40px;">"DR column 30 includes a list of DRs. A DR is a unique phrase or word which may be used in a record to refer to another record or record segment. In the context of a medical facility an exemplary DR may be as simple as "medication given", "ECG report", or "Admission NMR heartbeat". As explained in more detail below, when a processor linking feature is selected, processor 14 searches for DRs in a specified record and, when a DR is identified, links the DR to a record or record segment associated with the DR via a hyperlink or other mechanism. In the preferred embodiment of the invention the longest DRs in a DR list include more than one</p>

U. S. Patent No. 6,516,321	Claim Elements Not Disclosed By Aberdeen
	<p>word.”</p> <p>In col. 10, ll. 24-29, the ‘321 patent states:                      “When a DR is identified, processor 14 accesses table 5 and identifies the ARS which corresponds to the identified DR. Thereafter, processor 14 uses the ARS to identify information required to construct an address for the record or record segment associated with the identified DR.”</p> <p>In col. 13, ll. 10-17, the ‘321 patent states:                      “Systems are also contemplated which support both DRs and DR/MR combinations. For example, where DR-1 is term "ECG" and MR1-1A is term "previous", a specification like specification 4 in FIG. 3 and a specification like specification 200 in FIG. 6 may both be supported. In this case, where DR-1 is identified in a record and MR1-1A is not identified, a link to the record or segment associated with DR-1 may still be made. Similarly, when the DR-1/MR1-1A combination is identified, a link to the record or segment associated therewith can be made.”</p> <p>In col. 20, ll. 12-16, the ‘321 patent states:                      “To this end, generally, processor 14 is equipped to recognize characteristic sets which correspond to different record segments and, when a specific segment is identified, can place tags around the segment which are recognizable by other applications.”</p> <p>In col. 20, ll. 34-49, the ‘321 patent states:                      “For example, in the case of XML type patient ID 300, referring also to FIG. 13, XMLRS 312 includes a variable character string 314 which has a form recognizable as a patient ID. In the present case it is assumed that each patient at a medical facility is identified by an unambiguous and distinct character string including two numbers followed by two letters which are in turn followed by five numbers. In XMLRS 314 a "#" character indicates a digit from 0 through 9 while an "X" character indicates a letter. The first two characters are reserved for a year indication (e.g., 99 for 1999, etc.) The third and fourth characters are reserved for first and last name initials (e.g., Mary Jones would be MJ). The final five characters indicate a unique consecutively assigned number provided via an admit, discharge, transfer (ADT) system (not illustrated) when a patient is admitted to the facility.”</p> <p>The Aberdeen reference shows a system that purports to deduce the meaning of a sentence by examining certain word associations. One part of the Aberdeen reference shows a process where every word and even punctuation marks are provided with a tag. These parts of speech are then considered to determine in one case that a person “Mr. James” is stepping down as chief executive.</p> <p>However, Aberdeen neither shows data references being provided with tags to create a hyperlink or that Aberdeen is finding record segments using subject matter search rules. As previously mentioned, these record segments are display text that can be extracted from a record, for example, to be displayed by a browser as opposed to the entire record.</p>

U. S. Patent No. 6,516,321	Claim Elements Not Disclosed By Aberdeen
	<p>The patent claim also specifically requires there to be subject matter search rules. Aberdeen can at best be said to have search rules to find arbitrary parts of speech that are then used to deduce a meaning to a sentence. If Aberdeen were to find the text “Mr.” five times in a sentence, he would tag it five times as “&lt;ttl&gt;Mr.&lt;/ttl&gt;”. If it occurs 30 times in a record each will be so tagged. This is clearly not finding a data reference, creating a link, or finding a record segment that can be used by a tag enabled application to locate a specific segment according to the patent. The presence of the same tag 30 times in record does not provide any indication of a specific record segment, just that the same nearly random part of speech is present.</p> <p>Google points to Aberdeen and his MITRE report to show words with tags being placed before words and after words. However, Google is ignoring the meaning within the ‘321 patent of “subject matter specific tag pairs and corresponding search rules”. Instead of referring to arbitrary words or numbers, there is a specific purpose to the placement of “subject matter specific tag pairs”. The purpose has nothing to do with the placement of tags around arbitrary words or parts-of-speech elements in English grammar, which is what Aberdeen discusses.</p> <p>Aberdeen discusses an experimental word and word tagging program used to tag nearly any word in a document with a goal toward inferring the meaning of a sentence. For example, on p. 143, we see in Table 1, a sample sentence and below it two iterative tag suggestions:</p> <p>“Even so , Mr. Dooner is on the prowl for more creative talent and is interested in acquiring a hot agency.”</p> <pre>rb rb , nnp NNF vbz in dt nn in JJR jj nn cc vbz jj in vbg dt jj nn rb rb , nnp NNF vbz in dt nn in RBR jj nn cc vbz jj in vbg dt jj nn</pre> <p>Each word and each punctuation mark has been assigned a tag. While not shown in Table 1, each tag in the second and third lines refers to both a start tag to be placed before a word or punctuation mark and an end tag after it. For example, see also on P. 143 “... &lt;lex&gt;,&lt;/lex&gt; &lt;LEX pos=NNP ttl=Whole&gt;Mr.&lt;/LEX&gt; ...” showing both the comma and “Mr.” as being tagged with a separate beginning and end tags similar to those shown in Table 1.</p> <p>With this tagging, Aberdeen continues to discuss the “Phraser” which performs a syntactic analysis and inference to derive the meaning of a sentence.</p> <p>On page 144, Aberdeen discusses:</p> <p>“The phraser process operates in several steps. First a set of initial phrasing functions is applied to all the sentences to be analyzed. These functions are responsible for seeding the sentences with likely candidate phrases of various kinds. This seeding process is driven by word lists, part-of-speech information, and pre-tagging provided by preprocessors.”</p> <p>On page 145, we see another tagged example, presumably after the phraser has removed some of the earlier tags.</p> <p>“But bragging rights to &lt;org&gt;Coke&lt;/org&gt; ubiquitous advertising</p>

U. S. Patent No. 6,516,321	Claim Elements Not Disclosed By Aberdeen
	<p data-bbox="716 247 1317 310">belongs to &lt;org&gt;Creative Artists Agency&lt;/org&gt;, the big &lt;location&gt;Hollywood&lt;/location&gt; talent agency.”</p> <p data-bbox="621 359 1398 537">Nowhere in Aberdeen are we shown either a data reference that is tagged as a hyperlink (or with other data retrieval tags) or a record segment recognized from text. Instead, we are shown inferred meaning to certain sentence elements that “Coke” is an organization (as opposed to a product), “Creative Artists Agency” is also an organization, and “Hollywood is a location.</p> <p data-bbox="621 585 1419 646">Other examples are given with various rules applied to parsing and tagging text, but as Aberdeen states on page 145:</p> <p data-bbox="716 657 1373 682">“Note that these rule sequences encode a semantic grammar.”</p> <p data-bbox="621 730 1411 909">The purpose behind this statement is exactly how Aberdeen differs from the ‘321 patent. Aberdeen attempts to find, infer, or impute meaning in text. Instead, claim 27 only attempts to locate data references or record segments in a record. Record segments that can be used to refer to a specific record segment, for example, by another data reference in another record.</p> <p data-bbox="621 957 1425 1136">Aberdeen also discusses that they used “... 3 million words of Wall Street Journal text.” as part of their tagging lexicon. Clearly, Aberdeen is training his tagging process on generic word usages and phrases, that are clearly record independent information and <u>do not rely</u> on finding either data references or record segments, such as a segment that can be referred to by another data reference.</p> <p data-bbox="621 1184 1406 1245">On page 145, Aberdeen discusses their attempts to locate company names as follows:</p> <p data-bbox="716 1255 1425 1434">“What is important to note about these NE phraser rules is that they do not rely on a large database of known company names. Instead, the rules are designed to recognize organization names in almost any complete absence of any information about a particular organization names (with the sole exception of a few acronyms such as IBM, GM, etc.).”</p> <p data-bbox="621 1482 1419 1633">It can be no clearer that Aberdeen is describing a system that infers names from the context of a sentence and capitalization. Aberdeen is not locating and tagging a data reference or a record segment, for example, a segment that can later be referred to by a data reference in another record to retrieve that segment.</p> <p data-bbox="621 1682 1377 1707">Aberdeen himself describes the process on the first page (page 141) as:</p> <p data-bbox="716 1717 1419 1808">“... the major processing steps in <i>Alembic</i>: part-of speech tagging, syntactic analysis, inference, and in some cases set-fill processing in the Template Element task (TE).”</p> <p data-bbox="621 1856 1414 1881">Everything described is focused on trying to infer or deduce the content or</p>

U. S. Patent No. 6,516,321	Claim Elements Not Disclosed By Aberdeen
	<p>meaning of a set of words. None of it has to do with the recognition of data references or the identification of record segments.</p> <p>Aberdeen has a complete four page section (starting on P. 147) discussing “Phrase Interpretation and Inference”. Again, it is clear that he is identifying a process used to “... record propositions encoding the semantics of the parsed phrase”</p> <p>Aberdeen also notes on page 150 that :</p> <p style="padding-left: 40px;">“One final wrinkle must be noted. Inference is generally a non-deterministic search problem, with no firm guarantee as to whether facts will be derived in the same chronological order as the sentences which underlie the facts.”</p> <p>In short, this means that the same phrases rearranged in a sentence and interpreted by the Alembic system a second time can and do result in different inferences about a sentence and its meaning.</p> <p>This is a far cry from the highly precise rules described in the ‘321 patent to locate data references or record segments.</p> <p>Aberdeen teaches <i>away</i> from either data reference or record segment identification. He is only concerned about the potential inferred meaning of a sentence. He has no concept of how a data reference relates to other data records or record segments; or that even databases of records exist. He also does not describe any concept regarding how record segments can be identified for use by data references (in another document) to retrieve the record segment or to be used by a tag enabled application.</p> <p>Every time the text “Mr.” appears in a document, it will be tagged according to the many examples in Aberdeen so that it appears as “&lt;ttl&gt;Mr.&lt;/ttl&gt;”. In a record, should the title “Mr.” appear twenty times, or even three times in one sentence, it is clear from Aberdeen that he has no intention of declaring each occurrence to be a separate record segment or to be a data reference. His only purpose is to identify the title of a male and to infer that the text following it is likely to be a person’s name.</p>
(a) receiving a record;	
(b) examining the record according to the search rules to identify record segments including information of each of the information types;	<p>Aberdeen does not examine a record to identify record segments: a data reference, a data reference and modifier reference combination or a record segment.</p> <p>Instead, Aberdeen looks at most for parts-of-speech, and he attempts to combine them to infer a meaning to a sentence.</p> <p>The ‘321 patent uses the phrase “record segment” to describe text with a data reference, see col. 13, ll. 53-58:</p> <p style="padding-left: 40px;">“For example, assume a first combination including the MR</p>



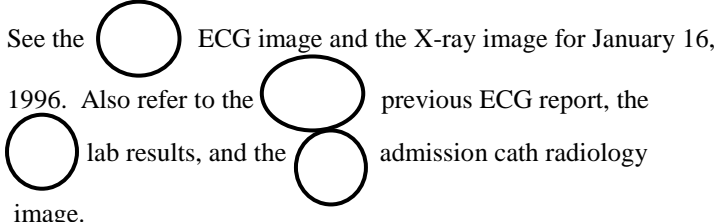
U. S. Patent No. 6,516,321	Claim Elements Not Disclosed By Aberdeen
	<p>"report" within two terms of the DR "ECG", a second DR/MR combination includes the MR "post-op" within five terms of the DR "X-ray image" and a record segment includes the phrase "The ECG post-op report and the X-ray image".</p> <p>and to describe a distinct portion of a record, see col. 22, ll. 14-19 :</p> <p>“For example, in the case of a United States patent specification, it is known that each patent generally includes several different sections or segments such as an abstract, a background, a summary, a brief description of drawings, a detailed description, a set of claims, figures and so on.”</p>
(c) when a record segment is identified which is of a particular information type:	<p>Aberdeen does not discuss a record segment which is a data reference, data reference/modifier reference combination or a record segment that can be retrieved by a data reference in another record, and the record segment must be of a particular information type.</p>
accessing the tag pair associated with the information type; inserting the begin tag before the identified segment and inserting the end tag after the identified segment.	<p>Aberdeen does not identify record segments.</p>

17. U.S. Patent No. 5,742,768 to Gennaro et al. is not prior art to the ‘321 patent. The Gennaro patent was filed on July 16, 1996. Claim 86 of the ‘321 patent, which is a continuation-in-part of 6 other patents, has a priority date of at least June 26, 1996, and therefore, predates the Gennaro reference.

For some of the reasons discussed below, U.S. Patent No. 5,742,768 to Gennaro et al. does not anticipate claim 86 of the ‘321 patent.

U. S. Patent No. 6,516,321	Claim Elements Not Disclosed By Gennaro
<p>86. [i] A method for use with an application wherein specifying references (SRs) in one record to other records which are selectable to access the other records are visually distinguished from other record information so as to indicate selectability,</p>	<p>A “specifying reference” is a data reference or a data reference/modifier reference combination, see col. 4, ll. 34–36:</p> <p>“Hereinafter the term "specifying reference" (SR) will be used to refer generically to each of a DR and a DR/MR combination or a DR/MR/MR combination.”</p> <p>The Federal Circuit in its Dec. 26, 2007, ruling stated that a “specifying reference” is:</p> <p>“a unique phrase or word which may be used in a record to refer to another record or record segment,” and that a data reference may refer to one or more than one record.”</p> <p>A modifier reference (MR) is described in col. 3, ll. 24-27 as follows:</p> <p>“...when a DR is identified, the record is further examined to identify modifier references (MRs) which identify a specific</p>

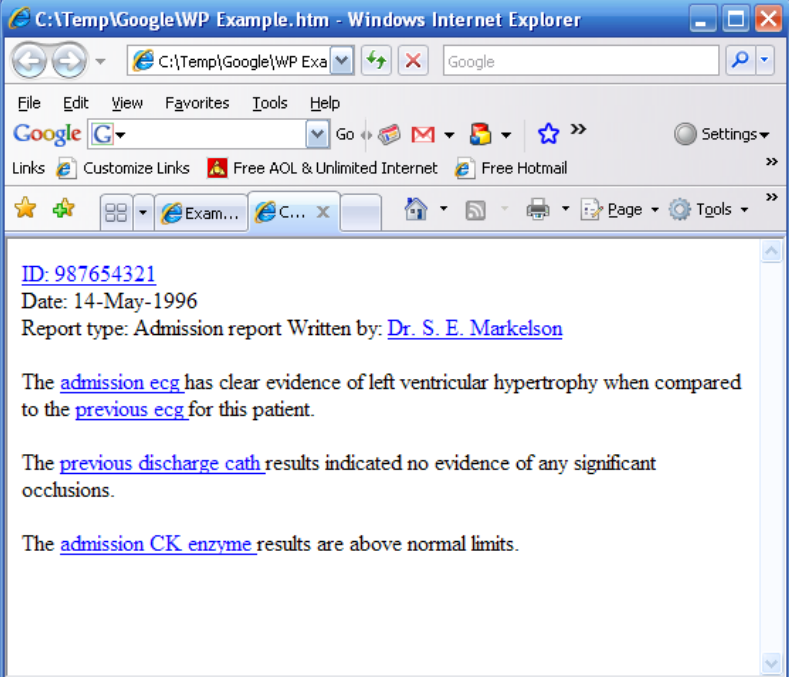
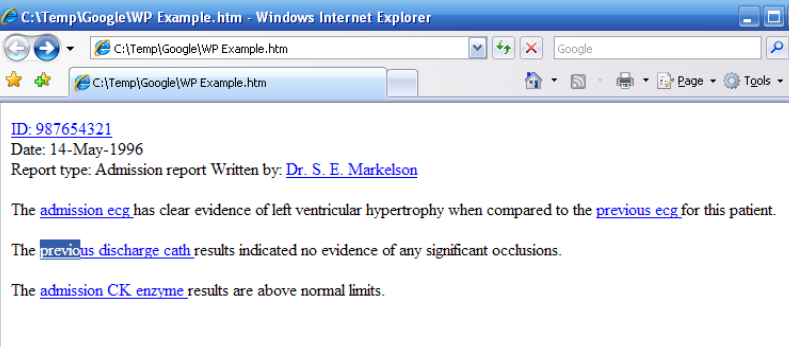
U. S. Patent No. 6,516,321	Claim Elements Not Disclosed By Gennaro
	<p>segment of a record which is associated with the data reference.”</p> <p>The preamble also states that a SR is both visibly distinguished from other record information indicating that the “specifying reference” is selectable. Gennaro describes the placement of a graphic hot spot in certain parts of a screen display. The user can interact with the hot spot, see col. 4, ll. 24–42:</p> <p style="padding-left: 40px;">“According to the teachings of the present invention, displayed web page 40 includes a plurality of <u>hot spots 44</u> that provide access to embedded menus created and managed by applet 28. The embedded menus can be accessed by positioning pointer 42 over one of hot spots 44.</p> <p style="padding-left: 40px;">FIG. 2B shows an embedded menu 46 in displayed web page 40 which has been invoked by positioning of pointer 42 over the upper hot spot 44. In the illustrated example, <u>selection of the upper hot spot 44</u> is indicated by highlighting that hot spot 44 with a halo, as shown. Embedded menu 46 includes a banner that matches the text (“WHO WE ARE”) that was associated with the selected hot spot 44 in FIG. 2A. Embedded menu 46 also includes a number of links 48, each providing a link to another web page or resource. The links 48 provided by embedded menu 46 may or may not be URLs directly accessible without initially passing through the initial displayed web page 40.”</p> <p>Gennaro is emphatic about the use of graphic hot spots. He uses the term 18 times in the 2½ pages of the Summary of the Invention and Detailed Description of the Invention sections. He never refers to text as a hot spot, instead, it is a graphic icon.</p> <p>Google tries to impute an equivalence between a “data reference” as taught by the ‘321 patent and a graphic hot spot, but he fails to do so because Gennaro is completely silent on “data references” or “specifying references” being selectable.</p> <p>Instead, Gennaro actually teaches <i>away</i> from this concept. Gennaro’s concept is to add a dramatic graphic icon indicating a subject that can be interacted with. Gennaro recognizes and appreciates the value of a limitation of his invention. The text is not “visually distinguished from other record information so as to indicate selectability” as in the ‘321 patent. Instead, he applies the graphic icon adjacent to some text.</p> <p>Of course, a significant limitation is that in an ordinary sentence a graphic icon cannot be inserted in the text string without making the text much more difficult to read and by doing so the reader is not given any indication of the extent or length of the data reference. In fact, if placed within a sentence, graphic icons may be misinterpreted to refer to a footnote or other editorial purpose. Also, graphical icons placed in a sentence do not indicate whether it is related to the text before it or following it.</p> <p>Another significant limitation is that, in an ordinary sentence, a graphic icon cannot be inserted in the text string without making the text much more difficult to read and by doing so, the reader is not given any indication that it links to an additional data record referred to by a data</p>

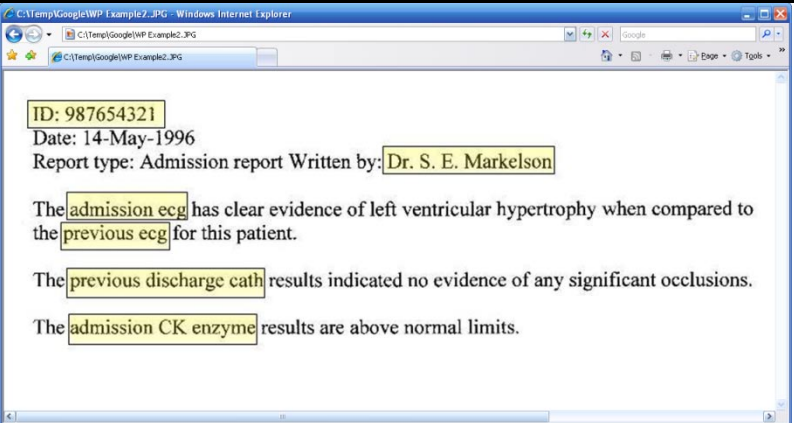
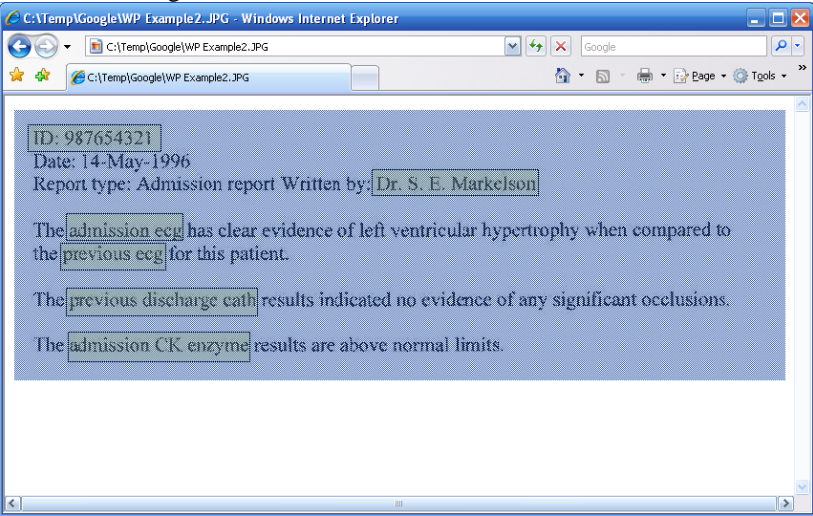
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	<p>reference. It also provides no clue as to the extent or length of the data reference text. If placed within a sentence, graphic icons may be misinterpreted to refer to a footnote or have another editorial purpose. Also, graphical icons placed in a sentence do not indicate whether it is related to the text before it or following it.</p> <p>For example, consider the following sentence:            See the <u>ECG image</u> and the <u>X-ray image for January 16,1996</u>.            Also refer to the <u>previous ECG report</u>, the <u>lab results</u>, and the <u>admission cath radiology image</u>.</p> <p>The references and their extent are clearly delineated. However, the same sentence with Gennaro’s type of hot-spot display becomes more difficult to read and much less clear if there are links or what text the graphic icons might be associated with.</p> <p style="text-align: center;">  </p> <p>This example raises the question: Does the first hot-spot refer to the “ECG image” or might it include the “X-ray image of January 16, 1996” as well? Does the second hot-spot refer to an ECG report or is it the “previous ECG image”? And the final hot-spot, does it refer to anything in the sentence, an “admission cath”, or an “admission cath radiology image”?</p>
<p>[ii] the method also for use with a system which enables a user to designate and also select SRs where designation comprises pointing to an SR without selection and,</p>	<p>Gennaro does not designate or select a SR, which must be text used in a record to refer to another record. Gennaro only allows interaction with an added graphic hot spot, separate from the text.</p> <p>Gennaro also states in col. 4, ll. 33–34:            “In the illustrated example, <u>selection of the upper hot spot 44</u> is indicated by highlighting that hot spot 44 with a halo, as shown.”</p> <p>This implies that Gennaro is expecting the user to select the hot spot to activate an embedded menu as opposed to designating it without selection, as this claim element requires.</p>
<p>[iii] wherein a seemingly general SR is modified by other record information which renders the SR relatively specific,</p>	<p>Gennaro does not discuss using text as “specifying references” (SR) and even if the “hot spot” is viewed as a “specifying reference” (which it is contrary to the definition of “specifying references” in the Federal Circuit opinion), the hot spot is not modified by other record information.</p> <p>While there is text adjacent to the hot sport, this text cannot be a specifying reference as it is not selectable and cannot be designated without selection. Furthermore, no other information in the record that can be read by a user, for example, a modifier reference, is used to modify this text.</p> <p>Instead, Google can merely state the user is presented with embedded menu choices which can be presented to a reader when the hot spot is selected. No other record information in the text of the record modifies the specifying reference to make it more specific. Instead, information added</p>

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	<p>to the record as an “embedded menu” is provided with no option for other record text information to modify a specifying reference.</p> <p>Google, also offers an alternate theory. They say that when the menu of items is presented, see Fig. 2B, then these are a specifying reference, but it is not. This text does not correspond to text in a record, but instead corresponds to text embedded by a various program controls executed by a browser.</p> <p>Even if the menu box is a record of its own, the text is not visually distinguished as all the text in the menu box (record) is of the same appearance.</p> <p>Next, Google shows that when a cursor is placed over text in a menu box a target address is revealed in the lower text box of the browser window. Google claims that revealing the address corresponds to using record information to make the menu box text more specific. However, this is not the case. First, the display of the address does not make the corresponding text in the menu box more specific as in Claim 86. Google has neglected to say that the claim requires the use of other record information to modify a specifying reference. The only record information in the ‘321 patent is display text, not information in hidden programming codes which Google is forced to rely upon for this argument.</p> <p>Once again, consider a user such as a physician reading a medical report only to discover that the text “ECG” is modified by hidden codes, for example a hidden date. The display text might have the text “ECG of Jan 1, 1996”, but because hidden codes are used the physician who selects or activated the specifying reference “ECG” discovers the link actually went to a ECG of Feb. 1 , 1996. No user such as a physician could rely on the links made using such hidden codes.</p> <p>Gennaro also fails to show how the text in the menu box could be used to refer to more than one record as required by the Federal Circuit ruling. The address shown in the lower text box shows at most a single record that might be referenced.</p>
<p>[iv] the method for indicating the specific nature of an SR prior to selection and comprising the steps of:</p>	
<p>(a) when an SR is designated, indicating the specific nature of the SR.</p>	<p>Gennaro has no specifying reference (which must be text) that can be designated.</p>

18. For some of the reasons discussed below, the Myka Reference does not anticipate claim 86 of the ‘321 patent.

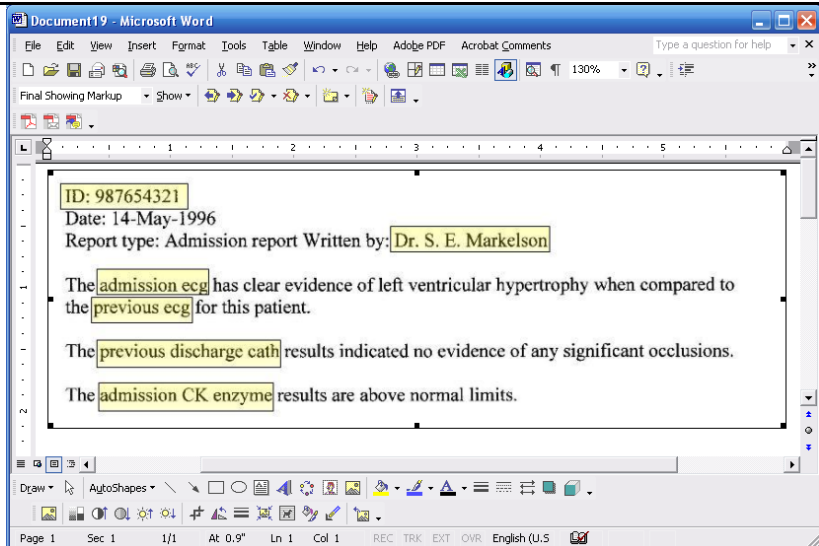
U. S. Patent No. 6,516,321	Claim Elements Not Disclosed by Myka
<p>86. [i] A method for use with an application wherein specifying references (SRs) in one record to other records which are selectable to access the other records are visually distinguished from other record information so as to indicate selectability,</p>	<p>Myka discloses a system where “scanned raster images” of text are presented (Myka, P. 69) for a user to read. He is trying to “... preserve the look and feel of the original documents with regard to display of library objects (Myka P. 85), which he believes to be of paramount importance. He apparently wants to ensure the reader sees exactly what had previously been written in its original formatting, fonts, and decoration.</p> <p>To achieve this, Myka resorted to a non-standard process (page 86):  “... In order to be able to combine raster image representation with hyperlink navigation, the common hypertext model <u>had to be modified</u>.”</p> <p>By modification he means that books and other paper documents are scanned, the scanned image is processed (using multiple pages to discuss the existing limitations of dealing with scanned images of text, for example see Pages 69, 70, 80, and others) to determine where in the scanned image should a link be placed. However, and importantly, the links that Myka creates are hot spots in a raster image of a document, as opposed to creating hyperlinks in the text of a document.</p> <p>The hot spots are created by superimposing the graphic image of a box over the raster image of a document, see page 89:  “... these boxes have to be inserted into the clickable image before the image is transferred from the server to the client. “</p> <p>In Claim 86, the term “specifying references (SRs)” are the same as a “data reference (DR)” or a “data reference (DR)/modifier reference (MR)” in the text of a record. Specifically, the Federal Circuit ruled that a “specifying reference” is defined as:  “... “a unique phrase or word which may be used in a record to refer to another record or record segment,” and that a data reference may refer to one or more than one record.”</p> <p>Clearly, the Federal Circuit did not include a raster image or a portion of a raster image as a “specifying reference.” Hence, Myka does not disclose “specifying references.”</p> <p>It is worthwhile to explore the difference between Myka and this claim. The following screenshot is a web browser display with a sample medical report as shown in the 5,895,461 patent, the earliest patent from which the ‘321 patent is a continuation-in-part.</p>

<p><b>U. S. Patent No. 6,516,321</b></p>	<p align="center"><b>Claim Elements Not Disclosed by Myka</b></p>
	 <p>The screenshot shows a Windows Internet Explorer browser window displaying a document. The document content includes:         <ul style="list-style-type: none"> <li><a href="#">ID: 987654321</a></li> <li>Date: 14-May-1996</li> <li>Report type: Admission report Written by: <a href="#">Dr. S. E. Markelson</a></li> <li>The <a href="#">admission ecg</a> has clear evidence of left ventricular hypertrophy when compared to the <a href="#">previous ecg</a> for this patient.</li> <li>The <a href="#">previous discharge cath</a> results indicated no evidence of any significant occlusions.</li> <li>The <a href="#">admission CK enzyme</a> results are above normal limits.</li> </ul> </p>
	<p>Clearly shown are the ASCII text sequences that a person can read as well as certain ASCII text indicating that they are selectable by being underlined and in blue text.</p>
	<p>Note that if a mouse button is depressed while the cursor is dragged across some of the text the specific text region is highlighted on a character-by-character basis.</p>
	 <p>The screenshot shows the same document as above, but with a blue highlight box around the text "previous discharge cath" in the second paragraph, demonstrating character-by-character selection.</p>
	<p>This allows users to perform useful functions like copying text from a web page to a word processor for any purpose or to allow an add-on program to provide the user with a definition of the selected word.</p>
	<p>However, in the Myka reference, the user is presented with a raster image of the document. Using the previous example, we see the scanned image now presented with hot spot boxes superimposed using a graphics package similar to what Myka describes:</p>

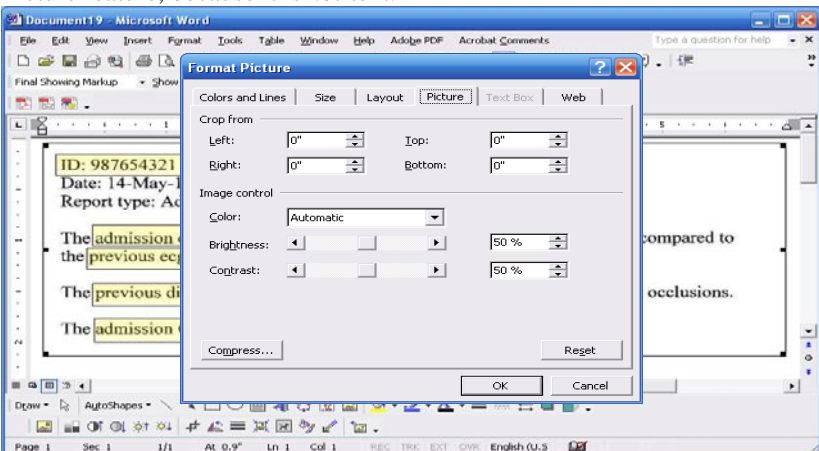
<p><b>U. S. Patent No. 6,516,321</b></p>	<p align="center"><b>Claim Elements Not Disclosed by Myka</b></p>
	 <p>The link areas are distinguished by overlaid colored boxes that are merged to be part of the raster image. Each box corresponds to a pixel offset from the top left corner and is distinguished by a height and length. Conventional hyperlinks in text documents are marked as a sequence of program codes that precede and follow the text they relate to in the HTML hidden programming of the web page.</p> <p>As can be seen below, a raster image of the above web page <i>cannot</i> be selected with a cursor on a character-by-character basis. Instead, only the entire raster image can be selected.</p>  <p>When the raster image is copied and pasted into a word processor, such as Microsoft Word, it cannot be edited as a text document because it is really only a picture of the words, not text.</p>

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Attempting to click with the picture of the text produces Word's Format Picture feature, because it is *not* text.



As also stated on page 89:

“Because the browser has been specifically tailored to representation of raster images in connection with hypertext links, the hypertext functionality is completely integrated into the imaging system ...”

Another distinguishing factor that makes text different than a raster image is the ability of the user to change the font and size of the text in a browser. In most browsers, there is a setting that allows the user to make the text a larger or smaller font or to even change the font. Since a raster image is a fixed item the font of a text image cannot be changed any more than the picture of a flower can be changed in a browser to a different color. Myka does not use subject matter specific search rules to find information in a record. He states on page 80:

“This expression is modified by means of the confusion matrix (cf [2206]) and tagging patterns. The confusion matrix is created by means of specifying the most common confusions of characters of character patterns with regard to the OCR software under concern. Because errors of an OCR package may as well depend on the fonts that are used, the global



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	<p>confusion matrix has to be evaluated and modified one for every document type in order to achieve optimal results.”</p> <p>Myka also presents us with concepts quite foreign to the ‘321 patent, the element of confusion and confusion matrices which apparently allow a zero “0” to be considered as an “O” or an “o”.</p>
<p>[ii] the method also for use with a system which enables a user to designate and also select SRs where designation comprises pointing to an SR without selection and,</p>	<p>As discussed above, Myka does not provide for a “specifying reference,” since he only displays a raster image.</p>
<p>[iii] wherein a seemingly general SR is modified by other record information which renders the SR relatively specific,</p>	<p>Myka des not disclose a general “specifying reference” being modified by other record information.</p> <p>Myka examines the font size or layout position in the document to make certain judgments about the contents of the document. Based on this, he attempts to determine the presence of a linkable portion of the raster image. However, Myka is quite clear about the limitations involved, on pages 81–82:</p> <p style="padding-left: 40px;">“The treatment of layout information, to a certain extent, <u>is even more difficult than the treatment of information concerning character patterns</u>. This is due to the fact that certain types of layout information are more vague. With regard to the ScanWorX software this is especially true for information about fonts and zoning. Other software packages (like e.g. Omnipage) may perform better with regard to recognition of basic printing modes such as bold face, italics, and ordinary mode, but do not provide for information on font families. Therefore, the relevance of this kind of information, today, has to be estimated and handled appropriately.” (emphasis added)</p> <p>Hence, we see that, at best, layout information is only a partially reliable means to a best infer that text may correspond to a reference to other data. However, none of this has any meaning on how “a seemingly general SR is modified by other record information”. A document zone or a specific font is not other record information. Record information is display text in a document that allows the typical reader to read and understand a document. The mere altering of the font appearance does not qualify. In the instance of a physician looking at a medical report for patient ID 987654321, the text “ECG” is modified by the patient ID number so only an ECG for that patient can be retrieved, as a physician would expect. The changing of the text “ECG” to a bold font, while distracting, would not change the physician’s expectations in reading the report.</p> <p>Furthermore, while Myka’s scanned document preserves the image of the document formatting, the equivalents in a text document are hidden HTML programming codes that the typical reader does not read or print. These codes describe a font to be used, the color of the text, the size of text, and</p>

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	<p>its formatting. There is an identical analogy for text documents in a word processor, albeit somewhat more difficult to locate.</p> <p>Myka does not use any display text record information to make a specifying reference more specific. At most, he shows additional information about a particular portion of a picture. He uses no record information to make a specifying reference (which he does not have) more specific. Instead, he shows additional information without using any other record information to modify a non-existing specifying reference.</p> <p>Google quotes Myka at page 86  “Additional information on a link (besides indicating the existence of a link by means of boxes) is presented to the user if he moves the cursor into the framed boxes: then the type of information that is contained in the link destination is shown as well as the type of action that is triggered. On the right side of the figure the central control window is shown. There, different kind of actions may be initiated, e.g. full text searches, selection of objects or sets of objects, manual link generation and manual link deletion, generation and deletion of annotations, selection of the display type for showing search results, and indication whether internal (sections) or external nodes (pages) should be used.”</p> <p>Google states: The “seemingly general” boxed link is modified by the other record information revealed when the cursor is positioned over the box, to thereby be rendered “relatively specific,” such as by displaying “the type of information that is contained in the link destination is shown as well as the type of action that is triggered”.</p> <p>However, the only information Google can use to support the theory that the boxed hyperlink is modified by other record information is to search for information embedded in the hidden programming codes at best.</p> <p>Myka is, however, silent on how the information in the lower display box is obtained. We must conclude that this is actually a function of his HyperFacs system software that merely connects the graphic image hot-spot with additional information external to the record. For example by locating the target record of the hot-spot and retrieving information for display from that target record. Again, this requires the use of hidden programming codes to implement.</p> <p>The central control window at the right of the screen Myka references, give the user various options and controls over the operation of the HyperFacs system. It does not present information to make a seemingly general SR more relatively specific by using any record information. It is just a control panel allowing the user to initiate other actions.</p> <p>The general “specifying reference” has to be modified by external record information or at best hidden programming codes that the intended reader will never see. Claim 86 of the ‘321 patent states that a specifying reference is modified by other record information. Nothing in Myka discusses using display text information to modify a specifying reference, and indeed, Myka does not even show a specifying reference as it is defined by the Federal Circuit.</p>

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[iv] the method for indicating the specific nature of an SR prior to selection and comprising the steps of:	Myka does not have a specifying reference.
(a) when an SR is designated, indicating the specific nature of the SR.	Myka does not have a specifying reference and does not indicate the specific nature of the specifying reference as no record information is used to render the specifying reference more specific.

I declare under penalty of perjury that to the best of my knowledge, the foregoing is true and correct.

Executed on April 10, 2008, in Milwaukee, Wisconsin.

  
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 Carlos de la Huerga