Appendix F – Part 8

Defendants' Supplemental Prior Art Statement
'228 Patent
(TC1442-TC1470)

to

TimeBase's Memorandum in Support of Its Motion for Summary Judgment of No Invalidity

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• **The Documentum/Interleaf System:** The Documentum/Interleaf system (and all of its variations) is primarily for the purpose of creating, editing, and publishing text-based information. *See, e.g.* Ovum Documentum 1996; Ovum Interleaf 1996. • **The Core Materials on Legal Ethics System:** The Core Materials on Legal Ethics system processes additions, changes, and deletions to the text-based data. • **The Federal Rules of Civil Procedure System:** The Federal Rules of Civil Procedure system processes additions, changes, and deletions to the text-based data. • **The Law Desk NY System:** The Law Desk NY system processes additions, changes, and deletions to the text-based data. • **The Law Desk USCS System:** The Law Desk USCS system processes additions, changes, and deletions to the text-based data. • **The New Mexico Law System:** The New Mexico Law on Legal Ethics system processes additions, changes, and deletions to the text-based data. • **The NY Official Reports System:** The NY Official Reports system processes additions, changes, and deletions to the text-based data. • **The NY CLS Beta System:** The NY CLS Beta system processes additions, changes, and deletions to the text-based data. • **The OnPoint System:** The OnPoint system processes additions, changes, and deletions to the text-based data. • **The Social Security Plus System:**

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The Social Security Plus system processes additions, changes, and deletions to the text-based data. • **The UCC System:** The UCC system processes additions, changes, and deletions to the text-based data.
Claim 9: In addition to the prior art listed above in conjunction with Claim 1, and Subject to the Court's claim construction, and given Defendants' understanding of Plaintiff's incomplete contentions regarding the construction and application of the claims, the following references disclose, teach or render obvious Claim 9:
wherein the text-based data comprises legislation or material related to a provision of said legislation. • **Agosti 1991:** Agosti 1991 discloses "the text-based data comprises legislation or material realted to a provision of said legislation." For example: • *See, e.g.*, "A Two-Level Hypertext Retrieval Model for Legal Data," at Title. • *See, e.g.*, "The experimental prototype, called HyperLaw, manages a collection of full text legal documents and a vocabulary of indexing terms," at 317. • *See, e.g.*, "The collection is made of objects of the real world: in the common practice of information retrieval these objects are textual documents," at 318. • *See, e.g.*, "The system thus created, called HyperLaw, is an experimental tool for handling legal collections of full text and reference documents: law, case law, legal authority," at 321. • *See, e.g.*, "The document collection used includes norm texts (State, Regional, Provincial laws, etc.," at 322. • **Arnold-Moore 1994:** Arnold-Moore 1994 discloses "the text-based data comprises legislation or material realted to a provision of said legislation." For example: • *See, e.g.*, "We discuss a data model for the storage, retrieval and display of legislation in large database collections," at Abstract. • **Arnold-Moore 1994-2:** Arnold-Moore 1994-2 discloses "the text-based data comprises legislation or material

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realted to a provision of said legislation." For example:

- *See, e.g.*, "A new class of document databases is emerging. These databases consist of large structured documents. Examples include databases of government legislation, maintenance manuals for systems as complex as aircraft carriers, and encyclopedia, and the documentation associated with a large software engineering project," at THOM00196608.
- *See, e.g.*, "The model also gives flexibility to the implementor to retrieve whole documents and decompose them, retrieve atomic elements and recombine them, or pursue alternatives which retrieve the elements directly," at THOM00196608.
- *See, e.g.*, "In this case, information is typically broken into small units," at THOM00196608.
- *See, e.g.*, "The database should also allow for partial document retrieval. The whole of a government Act may be an inappropriate retrieval unit, if one is searching for a definition. There may be a number of relevant portions of a single document that are relevant, and yet the whole document may still be an inappropriate retrieval unit," at THOM00196608.
- *See, e.g.*, "We chose elements as our base rather than whole documents as an SGML document is always an element, and using elements adds generality to the query without undue additional complexity allowing arbitrary node sizes instead of the traditional fixed node size," at THOM00196612.

- **Arnold-Moore 1995:**

Arnold-Moore 1995 discloses "the text-based data comprises legislation or material realted to a provision of said legislation." Specifically, Arnold-Moore 1995 discloses a computer based system for publishing legislative material. For example:

- *See, e.g.*, "This paper proposes an architecture for a system which accepts Amending Acts expressed in SGML and produces a database of resulting versions of the Principle Acts, and describes its implementation," at Abstract.
- *See, e.g.*, "[L]egislation has a complex structure which follows predefined rules. All Acts contain numbered sections. These sections can themselves contain subsections, paragraphs, subparagraphs, clauses, subclauses and definitions. In larger Acts these sections may be collected in a combination of chapters, parts, divisions and subdivisions. To avoid confusion with the specific meaning of these terms in legislation we collectively describe these as the elements of an Act," at 297.
- *See, e.g.*, "There is great potential for CALR systems not only to present legislation in a format familiar to lawyers (like that of the paper consolidation) but to present it as it would have appeared at any arbitrary point in time with annotations available

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with the text. The problems of how to store these various versions in electronic databases are discussed at length elsewhere," at 298.

- **Arnold-Moore 1997:**

  Arnold-Moore 1997 discloses "the text-based data comprises legislation or material realted to a provision of said legislation." For example:

  - *See, e.g.*, "The Themis system is an integrated drafting environment for legislation," at 56.
  - *See, e.g.*, "The Themis system manages a library of legislation which is encoded in the Structured Generalized Markup Language (SGML)," at 58.
  - *See, e.g.*, "The Fragments which make up the document are generated rather than simply being assembled or having the results of user queries inserted in particular places," at 58.
  - *See, e.g.*, "The section elements contains the headnote, and text elements and two attributes, secno which is the number of the section, and id which is a unique identifier within that document for that section which encodes much of the context information about that element," at 58.

- **Arnold-Moore 1997-2:**

  Arnold-Moore 1997-2 discloses "the text-based data comprises legislation or material realted to a provision of said legislation." For example:

  - *See, e.g.*, "Themis uses SGML to store legislation," at 175.
  - *See, e.g.*, "In particular, the complex structure of legislation and different versions of a particular piece of legislation can be better supported," at 175.
  - *See, e.g.*, "By contrast, each category of legislation has a strictly defined structure, Statutes are broken into numbered sections (each of which may contain numbered subsections, paragraphs and subparagraphs) and schedules. These sections may be collected in parts, divisions or subdivisions," at 175.
  - *See, e.g.*, "Digital legislation libraries need to reflect this independence by allowing the user to retrieve either individual elements (providing each element is a cohesive whole) or the whole Statute," at 176.
  - *See, e.g.*, "A digital library which makes use of SGML can provide access to elements and not just whole documents," at 177.
  - *See, e.g.*, "In the Themis system we have chosen to fragment documents at the

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section level for the body of the Statutes as all Statutes have a section (or equivalent), and in the tail, schedules and appendices are fragmented only if they contain Parts, an Annexure or a Code," at 177.

- **Horne 1997:**

  Horne 1997 discloses "the text-based data comprises legislation or material realted to a provision of said legislation." For example:

  - *See, e.g.*, "Since the mid 1980s every statute and statutory instrument has been coded using SGML (the Standard Generalized Markup Language)," at 2.

  - *See, e.g.*, "HMSO have a program called 'the Statute law Database'. This is an electronic version of Statutes in Force. It contains in SGML form the law as it was on a particular date in the 1980s together with all acts and statutory instruments which have come into force since that time," at 3.

- **Liddy 1996:**

  Liddy 1996 discloses, teaches or renders obvious this claim for the reasons stated by the Patent Examiner in the Office Action of March 24, 2000 (incorporated herein by reference) and others.

- **Lo 1996:**

  Lo 1996 discloses "text-based data comprises legislation." Specifically, Lo 1996 discloses that document management systems may handle legislation. For example:

  - *See, e.g.,* "Examples of huge documents are an encyclopedia and the Acts of Parliament," page 11, section 1.2.3.

  - *See* page 27, under the heading "Types of Documents": "In the example of legal databases, the role of auxiliary documents is played by Amendment Acts . . . ."

- **Povilus 1995:**

  Povilus 1995 discloses, teaches or renders obvious this claim for the reasons stated by the Patent Examiner in the Office Action of March 24, 2000 (incorporated herein by reference) and others.

- **Promenschenkel 1995:**

  Promenshenkel 1995 discloses "the text-based data comprises legislation or material realted to a provision of said legislation." For example:

  - *See, e.g.*, "Because the system is set up uniquely for each individual organization, it

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can be used in a wide variety of industries to suit specific publication needs," at 2. • **Sciore 1994:** Sciore 1994 inherently discloses "the text-based data comprises legislation or material realted to a provision of said legislation." Specifically, Sciore 1994 discloses a system that is an improvement to historical databases, and one skilled in the art would understand that databases storing legislative material are one example of a historical database. Therefore, one skilled in the art would understand that the system discussed in Sciore 1994 could be used to store legislation. For example: • *See, e.g.* 78-79. • **Travis & Waldt:** Travis & Waldt discloses "the text-based data comprises legislation or material realted to a provision of said legislation." Specifically, Travis & Waldt discloses use of SGML database in connection with legal citations, including use of such a database by Thomson for legal publishing. For example: • *See, e.g.*, "Consider the requirement to create a link to an on-line database containing legal citations. The name of the citation must be rendered on the screen in a different color and underlined, which informs the user that the item is associated with an external link. . . . Notice the unique number of the citation is contained in the "num" attribute. This will be used to access the database, while the actual name of the citation is stated separately," at 306–07. • *See, e.g.* , Case Study: RIA TIGRE System, at 371-384. • **Wilkinson 1998:** Wilkinson 1998 discloses "text-based data comprises legislation." Specifically, Wilkinson 1998 discloses a case study about a document management system for legislation (EnAct). For example: • *See, e.g.* Chapter 9, starting on page 161 (entitled "Case Study: Managing Legislation"). • **Wilson 1988:** Wilson 1988 discloses "the text-based data comprises legislation or material realted to a provision of said legislation." For example: • *See, e.g.*, "Justus automatically converts machine-readable versions of a variety of legal documents into hypertext documents for the Guide hypertext system," at 30.

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- *See, e.g.*, "In a hypertext system, texts are divided into segments, sometimes called nodes," at 32.
- *See, e.g.*, "The text of a statute is particularly amendable to representation in a hypertext system because it is already highly structured," at 32.
- *See, e.g.*, "Each subsection label provided by the legal draftsmen is automatically converted by Justus into a node name or, in Guide terms, a definition button," at 32.

- **Wilson 1990:**

  Wilson 1990 discloses "the text-based data comprises legislation or material realted to a provision of said legislation." For example:

  - *See, e.g.*, "The conversion was completed as part of the Justus project, which aims to provide an integrated hypertext law library containing diverse documents all of which have been converted by the Justus programs to hypertext documents," at 119.

- **Wilson 1992:**

  Wilson 1992 discloses "the text-based data comprises legislation or material realted to a provision of said legislation." For example:

  - *See, e.g.*, "This paper looks at some common structures for legal documents and describes how these structures can be mapped automatically into the Guide hypertext system," at Abstract.
  - *See, e.g.*, "Here we look at four common document types: statutes, law reports, textbooks and dictionaries," at 161.

- **The Pre-1997 Westlaw/Westmate System**:

  The Westlaw/Westmate system contained predefined portions of legislation. *See, e.g.*:

  - DataBasics 1993, at doc no. 79858–59 ("United States Code Annotated"): "A document is an annotated or unannotated section of USCA."
  - www.westlaw.com: any annual statutory database prior to 1998.
  - AMPEX § 2.
  - Wren 1994: 109–11, 141–42 (discussing searching statutory sections and showing attributes within a statutory section)/

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- The Essential Guide 1996, at 136 (showing that the text-based data within WESTLAW is stored as statutory sections)

- **The Pre-1997 Premise System**:

  The Premise system contained predefined portions of legislation. *See, e.g.*:

  - Premise Statutes (including numerous statutory sections).

- **The Astoria System (pre-1997):**

  The Astoria System could be used with any documents or portions of documents, including legislation. Use of this system therefore constitutes a method wherein the text-based data comprises legislation or material related to a provision of said legislation. For example:

  - *See, e.g.,* Astoria 1997-1: "Astoria . . . is a powerful yet east-to-use document component management system that provides the information repository and management infrastructure needed to help organizations capture critical business knowledge and distribute it more efficiently," at THOM00211907.

  - *See, e.g.,* XSoft Premiers Astoria: "Astoria . . . [is] a software system that allows groups of people to more easily collaborate on, create and edit massive or complex documents. Astoria is for use with 'structured' documents, which typically run into the thousands of pages, contain a series of reusable components such as headings, tables, and lists, and require multiple revisions or updates over many years," at THOM00198650.

- **The EnAct System** (previously known as Themis)**:**

  The EnAct system is a computer-implemented system for creating, processing, and publishing text-based legislation. *See, e.g.*:

  - Arnold-Moore 1997-2, at Abstract.

- **The SCALEplus System:**

  The SCALEplus system stores modified portions of text-based legislative. *See, e.g.*:

  - Kerr 2000: Page 6-1, ¶ 168: "SCALEplus . . . contains a wide range of legal records including decided cases and the legislation of most jurisdictions."

  - SCALEplus Secrets, at 2: "SCALEplus has lots of information that is huge, particularly legislation. SCALEplus data is formatted in HTML which is common to all World Wide Web applications but is ideally suited for one or a few pages—to view a document you have to wait for the browser to load it (often

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over a modem). Because of this the decision was made to turn each piece of legislation into a number of HTML files, each file being a section of that Legislation. When a results list is returned from SCALEplus what you see are the HTML files that have been found that match your search. For Legislation this will be a section of an Act; for Caselaw an individual case." • SCALEplus UM 2: "SCALEplus presents all Law Databases obtained and/or prepared by Federal Attorney General's Department as Searchable and Browseable data." (THOM00221675) • **The Documentum/Interleaf System:** The Documentum/Interleaf system is sometimes used to store legislation. *See, e.g.*: • Interleaf has been used to store legislation. *See* Consleg 1996, at 301 ("SGML is used as the representation format for the storage of acts.") • **The Core Materials on Legal Ethics System:** The Core Materials on Legal Ethics system contained predefined portions of legislation. • **The Federal Rules of Civil Procedure System:** The Federal Rules of Civil Procedure system contained predefined portions of legislation. • **The Law Desk USCS System:** The Law Desk USCS system contained predefined portions of legislation. • **The New Mexico Law System:** The New Mexico Law on Legal Ethics system contained predefined portions of legislation. • **The NY CLS Beta System:** The NY CLS Beta system contained predefined portions of legislation. • **The OnPoint System:** The OnPoint system contained predefined portions of legislation. • **The Social Security Plus System:** The Social Security Plus system contained predefined portions of legislation.

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• **The UCC System:** The UCC system contained predefined portions of legislation.
Claim 10: In addition to the prior art listed above in conjunction with Claims 1 & 9, and Subject to the Court's claim construction, and given Defendants' understanding of Plaintiff's incomplete contentions regarding the construction and application of the claims, the following references disclose, teach or render obvious Claim 10:
wherein, each of the plurality of portions of text-based data is a respective provision of said legislation or material related to a provision of said legislation. • **Agosti 1991:** Agosti 1991 discloses "each of the plurality of portions of text-based data is a respective provision of said legislation or material related to a provision of said legislation." Specifically, Agosti 1991 discloses storing provisions of legislation. For example: • *See, e.g.*, "A Two-Level Hypertext Retrieval Model for Legal Data," at Title. • *See, e.g.*, "The experimental prototype, called HyperLaw, manages a collection of full text legal documents and a vocabulary of indexing terms," at 317. • *See, e.g.*, "The collection is made of objects of the real world: in the common practice of information retrieval these objects are textual documents," at 318. • *See, e.g.*, "The system thus created, called HyperLaw, is an experimental tool for handling legal collections of full text and reference documents: law, case law, legal authority," at 321. • *See, e.g.*, "The document collection used includes norm texts (State, Regional, Provincial laws, etc.," at 322. • *See, e.g.* , (Figures 2-6), at 323. • **Arnold-Moore 1994:** Arnold-Moore 1994 discloses "each of the plurality of portions of text-based data is a respective provision of said legislation or material related to a provision of said legislation." Specifically, Arnold-Moore 1994 discloses storing predefined portions of legislative acts such as sections, which are referred to in the article alternatively as "elements," "nodes," and/or "atoms." For example: • *See, e.g.*, "Contrast this with legislation where a single Act of Parliament might be broken down into many hundreds of numbered sections which in turn are broken into numbered sub-sections or paragraphs or sub-paragraphs. In larger Acts these sections are grouped in chapters, parts, divisions and/or sub-divisions each with a

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label and usually a heading or title. . . . To avoid confusion with these terms which have specific meaning in the context of legislation they are referred to collectively as *elements* of the document," at *iv - v.*

- *See, e.g.*, "choose a small element (or elements) to be atomic nodes (*atoms*) in the database e.g. sections," at *xviii.*

- *See, e.*g., "we break each Act into atoms (in this case sections and schedules)," at *xxii.*

- **Arnold-Moore 1994-2:**

Arnold-Moore 1994-2 discloses "each of the plurality of portions of text-based data is a respective provision of said legislation or material related to a provision of said legislation." Specifically, Arnold-Moore 1994-2 discloses storing provisions of legislation. For example:

- *See, e.g.*, "A new class of document databases is emerging. These databases consist of large structured documents. Examples include databases of government legislation, maintenance manuals for systems as complex as aircraft carriers, and encyclopedia, and the documentation associated with a large software engineering project," at THOM00196608.

- *See, e.g.*, "The model also gives flexibility to the implementor to retrieve whole documents and decompose them, retrieve atomic elements and recombine them, or pursue alternatives which retrieve the elements directly," at THOM00196608.

- *See, e.*g., "In this case, information is typically broken into small units," at THOM00196608.

- *See, e.g.*, "The database should also allow for partial document retrieval. The whole of a government Act may be an inappropriate retrieval unit, if one is searching for a definition. There may be a number of relevant portions of a single document that are relevant, and yet the whole document may still be an inappropriate retrieval unit," at THOM00196608.

- *See, e.g.*, "We chose elements as our base rather than whole documents as an SGML document is always an element, and using elements adds generality to the query without undue additional complexity allowing arbitrary node sizes instead of the traditional fixed node size," at THOM00196612.

- **Arnold-Moore 1995:**

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- *See, e.g.*, "The Themis system is an integrated drafting environment for legislation," at 56.
- *See, e.g.*, "The Themis system manages a library of legislation which is encoded in the Structured Generalized Markup Language (SGML)," at 58.
- *See, e.g.*, "The Fragments which make up the document are generated rather than simply being assembled or having the results of user queries inserted in particular places," at 58.
- *See, e.g.*, "The section elements contains the headnote, and text elements and two attributes, secno which is the number of the section, and id which is a unique identifier within that document for that section which encodes much of the context information about that element," at 58.

- **Arnold-Moore 1997-2:**

Arnold-Moore 1997-2 discloses "each of the plurality of portions of text-based data is a respective provision of said legislation or material related to a provision of said legislation." Specifically, Arnold-Moore 1997-2 discloses storing predefined portions of

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legislative acts such as sections, which are referred to in the article as fragments. For example:

- *See, e.g.*, "Themis uses SGML to store legislation," at 175.
- *See, e.g.*, "In particular, the complex structure of legislation and different versions of a particular piece of legislation can be better supported," at 175.
- *See, e.g.*, "By contrast, each category of legislation has a strictly defined structure, Statutes are broken into numbered sections (each of which may contain numbered subsections, paragraphs and subparagraphs) and schedules. These sections may be collected in parts, divisions or subdivisions," at 175.
- *See, e.g.*, "Digital legislation libraries need to reflect this independence by allowing the user to retrieve either individual elements (providing each element is a cohesive whole) or the whole Statute," at 176.
- *See, e.g.*, "A digital library which makes use of SGML can provide access to elements and not just whole documents," at 177.
- *See, e.g.*, "In the Themis system we have chosen to fragment documents at the section level for the body of the Statutes as all Statutes have a section (or equivalent), and in the tail, schedules and appendices are fragmented only if they contain Parts, an Annexure or a Code," at 177.

- **Liddy 1996:** Liddy 1996 discloses, teaches or renders obvious this claim for the reasons stated by the Patent Examiner in the Office Action of March 24, 2000 (incorporated herein by reference) and others.

- **Povilus 1995:**

  Povilus 1995 discloses, teaches or renders obvious this claim for the reasons stated by the Patent Examiner in the Office Action of March 24, 2000 (incorporated herein by reference) and others.

- **Travis & Waldt:**

  Travis & Waldt discloses "each of the plurality of portions of text-based data is a respective provision of said legislation or material related to a provision of said legislation." Specifically, Specifically, Travis & Waldt discloses use of SGML database in connection with legal citations, including use of such a database by Thomson for legal publishing. Travis & Waldt further discuss dividing these legal documents, such as legislation, into low level components. For example:

  - *See, e.g.*, "Consider the requirement to create a link to an on-line database containing legal citations. The name of the citation must be rendered on the screen in a

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different color and underlined, which informs the user that the item is associated with an external link. . . . Notice the unique number of the citation is contained in the "num" attribute. This will be used to access the database, while the actual name of the citation is stated separately," at 306–07. • *See, e.g.* , Case Study: RIA TIGRE System, at 371-384. • *See, e.g.*, "The information in the TIGRE databases is broken into low level components called atoms. The boundaries of each intellectual element and physical component are used to bound the atoms. A program called the atomizer breaks the SGML data into these atoms according to the needs of both structures and creates database records," at 374. • **Wilson 1988:** Wilson 1988 discloses "each of the plurality of portions of text-based data is a respective provision of said legislation or material related to a provision of said legislation." Specifically, Wilson 1988 discloses storing provisions of legislation. For example: • *See, e.g.*, "Justus automatically converts machine-readable versions of a variety of legal documents into hypertext documents for the Guide hypertext system," at 30. • *See, e.g.*, "In a hypertext system, texts are divided into segments, sometimes called nodes," at 32. • *See, e.g.*, "The text of a statute is particularly amendable to representation in a hypertext system because it is already highly structured," at 32. • *See, e.g.*, "Each subsection label provided by the legal draftsmen is automatically converted by Justus into a node name or, in Guide terms, a definition button," at 32. • **Wilson 1990:** Wilson 1990 discloses "each of the plurality of portions of text-based data is a respective provision of said legislation or material related to a provision of said legislation." Specifically, Wilson 1990 discloses storing provisions of legislation. For example: • *See, e.g.*, "The conversion was completed as part of the Justus project, which aims to provide an integrated hypertext law library containing diverse documents all of which have been converted by the Justus programs to hypertext documents," at 119. • *See, e.g.*, "In directed graph systems, the text is divided into segments called nodes: in principle any node in the system should be accessible from any other

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node," at 123.

- *See, e.g.*, "the lowest level node is a single sentence," at 123.
- *See, e.g.*, "The definition file is the full text of the law reports segmented into labeled nodes…The nodes correspond with the basic components of a law report described above," at 124.

- **Wilson 1992:**

Wilson 1992 discloses "each of the plurality of portions of text-based data is a respective provision of said legislation or material related to a provision of said legislation." Specifically, Wilson 1992 discloses storing predefined portions of legislative acts such as sections, which are referred to in the article as nodes. For example:

- *See, e.g.*, "An Act of Parliament may be divided into parts, sections, subsections, and paragraphs; a schedule, into subschedules, paragraphs and subparagraphs. An act must have at least one subsection; a schedule at least one paragraph. Hence, the text is already divided into segments…the text segments are the basic units of information, or lowest level nodes, of the hypertext system," at 161.
- *See, e.g.*, "The Industrial Relations Act itself is a node that consists of the general description of the Act, nine Part nodes, and eight Schedule nodes," at 162.

- **The Pre-1997 Westlaw/Westmate System**:

The Westlaw/Westmate system contained predefined provisions of legislation. *See, e.g.*:

- DataBasics 1993, at doc no. 79858–59 ("United States Code Annotated"): "A document is an annotated or unannotated section of USCA."
- www.westlaw.com: any annual statutory database prior to 1998.
- Wren 1994, at 109–11, 141–42 (discussing searching statutory sections and showing attributes within a statutory section).
- AMPEX § 2
- The Essential Guide 1996, at 136 (showing that the text-based data within WESTLAW is stored as statutory sections)

- **The Pre-1997 Premise System**:

The Premise system contained predefined provisions of legislation. *See, e.g.*:

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- Premise Statutes (including numerous statutory sections).

- **The Astoria System (pre-1997):**

  The Astoria System could be used with any documents or portions of documents, including legislation or predefined provisions of legislation. Use of this system therefore constitutes a method wherein each of the plurality of portions of text-based data is a respective provision of said legislation or material related to a provision of said legislation. For example:

  - *See, e.g.,* Astoria 1997-1: "Astoria . . . is a powerful yet east-to-use document component management system that provides the information repository and management infrastructure needed to help organizations capture critical business knowledge and distribute it more efficiently," at THOM00211907.

  - *See, e.g.,* XSoft Premiers Astoria: "Astoria . . . [is] a software system that allows groups of people to more easily collaborate on, create and edit massive or complex documents. Astoria is for use with 'structured' documents, which typically run into the thousands of pages, contain a series of reusable components such as headings, tables, and lists, and require multiple revisions or updates over many years," at THOM00198650.

- **The EnAct System** (previously known as Themis)**:**

  The EnAct system stores legislation in portions smaller than Acts. *See, e.g.*:

  - Arnold-Moore 1997-2, at 177–78: "In the *Themis* system we have chosen to fragment documents at the section level . . . . By using SGML to store the Statutes, we can automate the process of fragmenting large documents and only present to the user the part of the document that the user requests."

  - http://web.archive.org/web/19990430002036/www.thelaw.tas.gov.au/background.html: "All legislation in the database is broken up into a number of fragments (i.e. one fragment per Section or Schedule)

- **The SCALEplus System:**

  The SCALEplus system stores portions that are provisions of legislation. For example:

  - *See, e.g.,* Kerr 2000, "The standard unit of retrieval for legislation is a section of an Act or a regulation in Regulations . . . and for caselaw is the entire case. Users are able to modify the searchable scope of these retrieved documents," at 11-13, ¶490.

  - SCALEplus Secrets, at 2: "SCALEplus has lots of information that is huge, particularly legislation. SCALEplus data is formatted in HTML which is common to all World Wide Web applications but is ideally suited for one or a few pages—to

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view a document you have to wait for the browser to load it (often over a modem). Because of this the decision was made to turn each piece of legislation into a number of HTML files, each file being a section of that Legislation. When a results list is returned from SCALEplus what you see are the HTML files that have been found that match your search. For Legislation this will be a section of an Act; for Caselaw an individual case." • SCALEplus UM 2: "SCALEplus presents all Law Databases obtained and/or prepared by Federal Attorney General's Department as Searchable and Browseable data." (THOM00221675) • **The Core Materials on Legal Ethics System:** The Core Materials on Legal Ethics system contained predefined provisions of legislation. • **The Federal Rules of Civil Procedure System:** The Federal Rules of Civil Procedure system contained predefined provisions of legislation. • **The Law Desk USCS System:** The Law Desk USCS system contained predefined provisions of legislation. • **The New Mexico Law System:** The New Mexico Law on Legal Ethics system contained predefined provisions of legislation. • **The NY CLS Beta System:** The NY CLS Beta system contained predefined provisions of legislation. • **The OnPoint System:** The OnPoint system contained predefined provisions of legislation. • **The Social Security Plus System:** The Social Security Plus system contained predefined provisions of legislation. • **The UCC System:** The UCC system contained predefined provisions of legislation.
Claim 11: In addition to the prior art listed above in conjunction with Claims 1, 9, 10, and

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Subject to the Court's claim construction, and given Defendants' understanding of Plaintiff's incomplete contentions regarding the construction and application of the claims, the following references disclose, teach or render obvious Claim 11:
wherein said provision is a section, schedule or appendix of an Act, or a section, schedule or appendix of a regulation. • **Agosti 1991:** Agosti 1991 discloses "said provision is a section, schedule or appendix of an Act, or a section, schedule or appendix of a regulation." Specifically, Agosti 1991 discloses storing provisions of legislation. For example: • *See, e.g.*, "A Two-Level Hypertext Retrieval Model for Legal Data," at Title. • *See, e.g.*, "The experimental prototype, called HyperLaw, manages a collection of full text legal documents and a vocabulary of indexing terms," at 317. • *See, e.g.*, "The collection is made of objects of the real world: in the common practice of information retrieval these objects are textual documents," at 318. • *See, e.g.*, "The system thus created, called HyperLaw, is an experimental tool for handling legal collections of full text and reference documents: law, case law, legal authority," at 321. • *See, e.g.*, "The document collection used includes norm texts (State, Regional, Provincial laws, etc.," at 322. • *See, e.g.* , (Figures 2-6), at 323. • **Arnold-Moore 1994:** Arnold-Moore 1994 discloses "said provision is a section, schedule or appendix of an Act, or a section, schedule or appendix of a regulation." Specifically, Arnold-Moore 1994 discloses storing predefined portions of legislative acts such as sections, which are referred to in the article alternatively as "elements," "nodes," and/or "atoms." For example: • *See, e.g.*, "Contrast this with legislation where a single Act of Parliament might be broken down into many hundreds of numbered sections which in turn are broken into numbered sub-sections or paragraphs or sub-paragraphs. In larger Acts these sections are grouped in chapters, parts, divisions and/or sub-divisions each with a label and usually a heading or title. . . . To avoid confusion with these terms which have specific meaning in the context of legislation they are referred to collectively as *elements* of the document," at *iv - v.* • *See, e.g.*, "choose a small element (or elements) to be atomic nodes (*atoms*) in the

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database e.g. sections," at *xviii*.

- *See, e.*g., "we break each Act into atoms (in this case sections and schedules)," at *xxii*.

- **Arnold-Moore 1994-2:**

Arnold-Moore 1994-2 discloses "said provision is a section, schedule or appendix of an Act, or a section, schedule or appendix of a regulation." Specifically, Arnold-Moore 1994-2 discloses storing provisions of legislation. For example:

- *See, e.g.*, "A new class of document databases is emerging. These databases consist of large structured documents. Examples include databases of government legislation, maintenance manuals for systems as complex as aircraft carriers, and encyclopedia, and the documentation associated with a large software engineering project," at THOM00196608.

- *See, e.g.*, "The model also gives flexibility to the implementor to retrieve whole documents and decompose them, retrieve atomic elements and recombine them, or pursue alternatives which retrieve the elements directly," at THOM00196608.

- *See, e.*g., "In this case, information is typically broken into small units," at THOM00196608.

- *See, e.g.*, "The database should also allow for partial document retrieval. The whole of a government Act may be an inappropriate retrieval unit, if one is searching for a definition. There may be a number of relevant portions of a single document that are relevant, and yet the whole document may still be an inappropriate retrieval unit," at THOM00196608.

- *See, e.g.*, "We chose elements as our base rather than whole documents as an SGML document is always an element, and using elements adds generality to the query without undue additional complexity allowing arbitrary node sizes instead of the traditional fixed node size," at THOM00196612.

- **Arnold-Moore 1995:**

Arnold-Moore 1995 discloses "said provision is a section, schedule or appendix of an Act, or a section, schedule or appendix of a regulation." Specifically, Arnold-Moore 1995 discloses a computer based system for publishing provisions of legislation. For example:

- *See, e.g.*, "This paper proposes an architecture for a system which accepts Amending Acts expressed in SGML and produces a database of resulting versions of the Principle Acts, and describes its implementation," at Abstract.

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- *See, e.g.*, "[L]egislation has a complex structure which follows predefined rules. All Acts contain numbered sections. These sections can themselves contain subsections, paragraphs, subparagraphs, clauses, subclauses and definitions. In larger Acts these sections may be collected in a combination of chapters, parts, divisions and subdivisions. To avoid confusion with the specific meaning of these terms in legislation we collectively describe these as the elements of an Act," at 297.

- *See, e.g.*, "There is great potential for CALR systems not only to present legislation in a format familiar to lawyers (like that of the paper consolidation) but to present it as it would have appeared at any arbitrary point in time with annotations available with the text. The problems of how to store these various versions in electronic databases are discussed at length elsewhere," at 298.

- **Arnold-Moore 1997:**

  Arnold-Moore 1997 discloses "said provision is a section, schedule or appendix of an Act, or a section, schedule or appendix of a regulation." Specifically, Arnold-Moore 1997 discloses storing provisions of legislation. For example:

  - *See, e.g.*, "The Themis system is an integrated drafting environment for legislation," at 56.

  - *See, e.g.*, "The Themis system manages a library of legislation which is encoded in the Structured Generalized Markup Language (SGML)," at 58.

  - *See, e.g.*, "The Fragments which make up the document are generated rather than simply being assembled or having the results of user queries inserted in particular places," at 58.

  - *See, e.g.*, "The section elements contains the headnote, and text elements and two attributes, secno which is the number of the section, and id which is a unique identifier within that document for that section which encodes much of the context information about that element," at 58.

- **Arnold-Moore 1997-2:**

  Arnold-Moore 1997-2 discloses "said provision is a section, schedule or appendix of an Act, or a section, schedule or appendix of a regulation." Specifically, Arnold-Moore 1997-2 discloses storing predefined portions of legislative acts such as sections, which are referred to in the article as fragments. For example:

  - *See, e.g.*, "Themis uses SGML to store legislation," at 175.

  - *See, e.g.*, "In particular, the complex structure of legislation and different versions of a particular piece of legislation can be better supported," at 175.

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- *See, e.g.*, "By contrast, each category of legislation has a strictly defined structure, Statutes are broken into numbered sections (each of which may contain numbered subsections, paragraphs and subparagraphs) and schedules. These sections may be collected in parts, divisions or subdivisions," at 175.
- *See, e.g.*, "Digital legislation libraries need to reflect this independence by allowing the user to retrieve either individual elements (providing each element is a cohesive whole) or the whole Statute," at 176.
- *See, e.g.*, "A digital library which makes use of SGML can provide access to elements and not just whole documents," at 177.
- *See, e.g.*, "In the Themis system we have chosen to fragment documents at the section level for the body of the Statutes as all Statutes have a section (or equivalent), and in the tail, schedules and appendices are fragmented only if they contain Parts, an Annexure or a Code," at 177.

- **Liddy 1996:** Liddy 1996 discloses, teaches or renders obvious this claim for the reasons stated by the Patent Examiner in the Office Action of March 24, 2000 (incorporated herein by reference) and others.

- **Povilus 1995:**

  Povilus 1995 discloses, teaches or renders obvious this claim for the reasons stated by the Patent Examiner in the Office Action of March 24, 2000 (incorporated herein by reference) and others.

- **Travis & Waldt:**

  Travis & Waldt discloses "said provision is a section, schedule or appendix of an Act, or a section, schedule or appendix of a regulation." Specifically, Specifically, Travis & Waldt discloses use of SGML database in connection with legal citations, including use of such a database by Thomson for legal publishing. Travis & Waldt further discuss dividing these legal documents, such as legislation, into low level components. For example:

  - *See, e.g.*, "Consider the requirement to create a link to an on-line database containing legal citations. The name of the citation must be rendered on the screen in a different color and underlined, which informs the user that the item is associated with an external link. . . . Notice the unique number of the citation is contained in the "num" attribute. This will be used to access the database, while the actual name of the citation is stated separately," at 306–07.
  - *See, e.g.* , Case Study: RIA TIGRE System, at 371-384.
  - *See, e.g.*, "The information in the TIGRE databases is broken into low level

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components called atoms. The boundaries of each intellectual element and physical component are used to bound the atoms. A program called the atomizer breaks the SGML data into these atoms according to the needs of both structures and creates database records," at 374.

- **Wilson 1988:**

Wilson 1988 discloses "said provision is a section, schedule or appendix of an Act, or a section, schedule or appendix of a regulation." Specifically, Wilson 1988 discloses storing provisions of legislation. For example:

- *See, e.g.*, "Justus automatically converts machine-readable versions of a variety of legal documents into hypertext documents for the Guide hypertext system," at 30.
- *See, e.g.*, "In a hypertext system, texts are divided into segments, sometimes called nodes," at 32.
- *See, e.g.*, "The text of a statute is particularly amendable to representation in a hypertext system because it is already highly structured," at 32.
- *See, e.g.*, "Each subsection label provided by the legal draftsmen is automatically converted by Justus into a node name or, in Guide terms, a definition button," at 32.

- **Wilson 1990:**

Wilson 1990 discloses "said provision is a section, schedule or appendix of an Act, or a section, schedule or appendix of a regulation." Specifically, Wilson 1990 discloses storing provisions of legislation. For example:

- *See, e.g.*, "The conversion was completed as part of the Justus project, which aims to provide an integrated hypertext law library containing diverse documents all of which have been converted by the Justus programs to hypertext documents," at 119.
- *See, e.g.*, "In directed graph systems, the text is divided into segments called nodes: in principle any node in the system should be accessible from any other node," at 123.
- *See, e.g.*, "the lowest level node is a single sentence," at 123.
- *See, e.g.*, "The definition file is the full text of the law reports segmented into labeled nodes…The nodes correspond with the basic components of a law report described above," at 124.

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- **Wilson 1992:**

  Wilson 1992 discloses "said provision is a section, schedule or appendix of an Act, or a section, schedule or appendix of a regulation." Specifically, Wilson 1992 discloses storing predefined portions of legislative acts such as sections, which are referred to in the article as nodes. For example:

  - *See, e.g.*, "An Act of Parliament may be divided into parts, sections, subsections, and paragraphs; a schedule, into subschedules, paragraphs and subparagraphs. An act must have at least one subsection; a schedule at least one paragraph. Hence, the text is already divided into segments…the text segments are the basic units of information, or lowest level nodes, of the hypertext system," at 161.

  - *See, e.g.*, "The Industrial Relations Act itself is a node that consists of the general description of the Act, nine Part nodes, and eight Schedule nodes," at 162.

- **The Pre-1997 Westlaw/Westmate System**:

  The Westlaw/Westmate system contained predefined provisions of legislation. *See, e.g.*:

  - DataBasics 1993, at doc no. 79858–59 ("United States Code Annotated"): "A document is an annotated or unannotated section of USCA."

  - www.westlaw.com: any annual statutory database prior to 1998.

  - Wren 1994, at 109–11, 141–42 (discussing searching statutory sections and showing attributes within a statutory section).

  - AMPEX § 2

  - The Essential Guide 1996, at 136 (showing that the text-based data within WESTLAW is stored as statutory sections)

- **The Pre-1997 Premise System**:

  The Premise system contained predefined provisions of legislation. *See, e.g.*:

  - Premise Statutes (including numerous statutory sections).

- **The Astoria System (pre-1997):**

  The Astoria System could be used with any documents or portions of documents, including legislation or portions of legislation, such as a section. Use of the system therefore constitutes a method wherein said provision is a section , schedule, or appendix of an Act, or a section, schedule or appendix of a regulation. For example:

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- *See, e.g.,* Astoria 1997-1: "Astoria . . . is a powerful yet east-to-use document component management system that provides the information repository and management infrastructure needed to help organizations capture critical business knowledge and distribute it more efficiently," at THOM00211907.

- *See, e.g.,* XSoft Premiers Astoria: "Astoria . . . [is] a software system that allows groups of people to more easily collaborate on, create and edit massive or complex documents. Astoria is for use with 'structured' documents, which typically run into the thousands of pages, contain a series of reusable components such as headings, tables, and lists, and require multiple revisions or updates over many years," at THOM00198650.

- *See, e.g.,* Astoria 1997-1: "Astoria lets users navigate through the document depository and view documents down to the individual components that comprise them." at THOM00211907.

- *See, e.g.,* XSoft Astoria: "Astoria deals with the concept of 'document components.' A document component is a piece that is designed to be maintained as a unit, whether this be at the volume or book level, or at some finer granular point, such as paragraph or list," at THOM00198652.

- *See, e.g.,* Astoria 1997-1: "Astoria can apply revision information to only the components that change during an editing session. Astoria detects and maintains revision history at the component level, not just at the document level. . . Astoria stores versioning information in an efficient format, and past versions are always available for republishing or for providing an audit trail," at THOM00211908.

- *See, e.g.,* XSoft: "Because of its sophisticated integration with SGML editors, Astoria maintains revision information on individual elements, and past versions are always available," at THOM00198648.

- **The EnAct System** (previously known as Themis)**:**

  The EnAct system stores legislation in portions smaller than Acts. *See, e.g.*:

  - Arnold-Moore 1997-2, at 177–78: "In the *Themis* system we have chosen to fragment documents at the section level . . . . By using SGML to store the Statutes, we can automate the process of fragmenting large documents and only present to the user the part of the document that the user requests."

  - http://web.archive.org/web/19990430002036/www.thelaw.tas.gov.au/background.html: "All legislation in the database is broken up into a number of fragments (i.e. one fragment per Section or Schedule)

- **The SCALEplus System:**

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The SCALEplus system stores portions that are provisions of legislation. For example:

- *See, e.g.,* Kerr 2000, "The standard unit of retrieval for legislation is a section of an Act or a regulation in Regulations . . . and for caselaw is the entire case. Users are able to modify the searchable scope of these retrieved documents," at 11-13, ¶490.

- SCALEplus Secrets, at 2: "SCALEplus has lots of information that is huge, particularly legislation. SCALEplus data is formatted in HTML which is common to all World Wide Web applications but is ideally suited for one or a few pages—to view a document you have to wait for the browser to load it (often over a modem). Because of this the decision was made to turn each piece of legislation into a number of HTML files, each file being a section of that Legislation. When a results list is returned from SCALEplus what you see are the HTML files that have been found that match your search. For Legislation this will be a section of an Act; for Caselaw an individual case."

- SCALEplus UM 2: "SCALEplus presents all Law Databases obtained and/or prepared by Federal Attorney General's Department as Searchable and Browseable data." (THOM00221675)

- **The Core Materials on Legal Ethics System:**

  The Core Materials on Legal Ethics system contained predefined provisions of legislation.

- **The Federal Rules of Civil Procedure System:**

  The Federal Rules of Civil Procedure system contained predefined provisions of legislation.

- **The Law Desk USCS System:**

  The Law Desk USCS system contained predefined provisions of legislation.

- **The New Mexico Law System:**

  The New Mexico Law on Legal Ethics system contained predefined provisions of legislation.

- **The NY CLS Beta System:**

  The NY CLS Beta system contained predefined provisions of legislation.

- **The OnPoint System:**

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The OnPoint system contained predefined provisions of legislation. • **The Social Security Plus System:** The Social Security Plus system contained predefined provisions of legislation. • **The UCC System:** The UCC system contained predefined provisions of legislation.
Claim 12: In addition to the prior art listed above in conjunction with Claim 1, and Subject to the Court's claim construction, and given Defendants' understanding of Plaintiff's incomplete contentions regarding the construction and application of the claims, the following references disclose, teach or render obvious Claim 12:
wherein each portion is a block of the text-based data, the block being larger than a single word and less than the entirety of the text-based data. • **Agosti 1991:** Agosti 1991 discloses "each portion is a block of the text-based data, the block being larger than a single word and less than the entirety of the text-based data." Specifically, Agosti 1991 discloses storing sections of legislation which are larger than one word and less than a full document. For example: • *See, e.g.*, "A Two-Level Hypertext Retrieval Model for Legal Data," at Title. • *See, e.g.*, "The experimental prototype, called HyperLaw, manages a collection of full text legal documents and a vocabulary of indexing terms," at 317. • *See, e.g.*, "The collection is made of objects of the real world: in the common practice of information retrieval these objects are textual documents," at 318. • *See, e.g.*, "The system thus created, called HyperLaw, is an experimental tool for handling legal collections of full text and reference documents: law, case law, legal authority," at 321. • *See, e.g.*, "The document collection used includes norm texts (State, Regional, Provincial laws, etc.," at 322. • *See, e.g.* 323 (Figures 2-6). • **Arnold-Moore 1994:** Arnold-Moore 1994 discloses "each portion is a block of the text-based data, the block being larger than a single word and less than the entirety of the text-based data." Specifically, Arnold-Moore 1994 discloses storing predefined portions of legislative acts

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such as sections, which are referred to in the article alternatively as "elements," "nodes," and/or "atoms." For example:

- *See, e.g.*, "Contrast this with legislation where a single Act of Parliament might be broken down into many hundreds of numbered sections which in turn are broken into numbered sub-sections or paragraphs or sub-paragraphs. In larger Acts these sections are grouped in chapters, parts, divisions and/or sub-divisions each with a label and usually a heading or title. . . . To avoid confusion with these terms which have specific meaning in the context of legislation they are referred to collectively as *elements* of the document," at *iv - v*.

- *See, e.g.*, "Using Omnimark (an SGML manipulation tool) we break each Act into atoms (in this case sections and schedules). The atoms are then stored in SIM (indexed on their content) taking note of their record identifier as they are stored," at *xxii*.

- **Arnold-Moore 1994-2:**

Arnold-Moore 1994-2 discloses "each portion is a block of the text-based data, the block being larger than a single word and less than the entirety of the text-based data." Specifically, Arnold-Moore 1994-2 discloses storing sections of legislation which are larger than one word and less than a full document. For example:

- *See, e.g.*, "A new class of document databases is emerging. These databases consist of large structured documents. Examples include databases of government legislation, maintenance manuals for systems as complex as aircraft carriers, and encyclopedia, and the documentation associated with a large software engineering project," at THOM00196608.

- *See, e.g.*, "The model also gives flexibility to the implementor to retrieve whole documents and decompose them, retrieve atomic elements and recombine them, or pursue alternatives which retrieve the elements directly," at THOM00196608.

- *See, e.*g., "In this case, information is typically broken into small units," at THOM00196608.

- *See, e.g.*, "The database should also allow for partial document retrieval. The whole of a government Act may be an inappropriate retrieval unit, if one is searching for a definition. There may be a number of relevant portions of a single document that are relevant, and yet the whole document may still be an inappropriate retrieval unit," at THOM00196608.

- *See, e.g.*, "We chose elements as our base rather than whole documents as an SGML document is always an element, and using elements adds generality to the query without undue additional complexity allowing arbitrary node sizes instead of the

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traditional fixed node size," at THOM00196612. • **Arnold-Moore 1995:** Arnold-Moore 1995 discloses "each portion is a block of the text-based data, the block being larger than a single word and less than the entirety of the text-based data." Specifically, Arnold-Moore 1995 discloses a computer based system for publishing sections of legislation. For example: • *See, e.g.*, "This paper proposes an architecture for a system which accepts Amending Acts expressed in SGML and produces a database of resulting versions of the Principle Acts, and describes its implementation," at Abstract. • *See, e.g.*, "[L]egislation has a complex structure which follows predefined rules. All Acts contain numbered sections. These sections can themselves contain subsections, paragraphs, subparagraphs, clauses, subclauses and definitions. In larger Acts these sections may be collected in a combination of chapters, parts, divisions and subdivisions. To avoid confusion with the specific meaning of these terms in legislation we collectively describe these as the elements of an Act," at 297. • *See, e.g.*, "There is great potential for CALR systems not only to present legislation in a format familiar to lawyers (like that of the paper consolidation) but to present it as it would have appeared at any arbitrary point in time with annotations available with the text. The problems of how to store these various versions in electronic databases are discussed at length elsewhere," at 298. • **Arnold-Moore 1997:** Arnold-Moore 1997 discloses "each portion is a block of the text-based data, the block being larger than a single word and less than the entirety of the text-based data." Specifically, Arnold-Moore 1997 discloses storing sections of legislation, which are larger than a single word but less than an entire document. For example: • *See, e.g.*, "The Themis system is an integrated drafting environment for legislation," at 56. • *See, e.g.*, "The Themis system manages a library of legislation which is encoded in the Structured Generalized Markup Language (SGML)," at 58. • *See, e.g.*, "The Fragments which make up the document are generated rather than simply being assembled or having the results of user queries inserted in particular places," at 58. • *See, e.g.*, "The section elements contains the headnote, and text elements and two attributes, secno which is the number of the section, and id which is a unique identifier within that document for that section which encodes much of the context

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information about that element," at 58.

- **Arnold-Moore 1997-2:**

  Arnold-Moore 1997-2 discloses "each portion is a block of the text-based data, the block being larger than a single word and less than the entirety of the text-based data." Specifically, Arnold-Moore 1997-2 discloses storing predefined portions of legislative acts such as sections, which are referred to in the article as fragment. For example:

  - *See, e.g.*, "Themis uses SGML to store legislation," at 175.
  - *See, e.g.*, "In particular, the complex structure of legislation and different versions of a particular piece of legislation can be better supported," at 175.
  - *See, e.g.*, "By contrast, each category of legislation has a strictly defined structure, Statutes are broken into numbered sections (each of which may contain numbered subsections, paragraphs and subparagraphs) and schedules. These sections may be collected in parts, divisions or subdivisions," at 175.
  - *See, e.g.*, "Digital legislation libraries need to reflect this independence by allowing the user to retrieve either individual elements (providing each element is a cohesive whole) or the whole Statute," at 176.
  - *See, e.g.*, "A digital library which makes use of SGML can provide access to elements and not just whole documents," at 177.
  - *See, e.g.*, "In the Themis system we have chosen to fragment documents at the section level for the body of the Statutes as all Statutes have a section (or equivalent), and in the tail, schedules and appendices are fragmented only if they contain Parts, an Annexure or a Code," at 177.

- **Bachman 1973:**

  Bachman 1973 discloses "each portion is a block of the text-based data, the block being larger than a single word and less than the entirety of the text-based data." Specifically, Bachman 1973 discloses storing personnel files, airline reservations, or laboratory experiments, which are larger than a single word. Bachman 1973 also does not require that these records be stored as entire documents. For example:

  - *See, e.g.*, "It involves all aspects of storing, retrieving, modifying, and deleting data in the files on personnel and production, airline reservations, or laboratory experiments – data which is used repeatedly and updated as new information becomes available," at 654.
  - *See, e.g.*, "It involves all aspects of storing, retrieving, modifying, and deleting data in the files on personnel and production, airline reservations, or laboratory